REGULAR CITY COUNCIL AGENDA

City Hall - Council Chambers
4381 Broadway St., Suite 201, American Canyon
September 15, 2026
6:30 PM

Mayor: Pierre Washington
Vice Mayor: Mayor Mark Joseph
Councilmembers: Brando Cruz, Melissa Lamattina, David Oro

4:30 P.M. CLOSED SESSION

The mayor will call the meeting to order and conduct roll call. Following public comment on Closed Session items, the Council will immediately convene in Closed Session.

CALL TO ORDER - CLOSED SESSION

ROLL CALL - CLOSED SESSION

PUBLIC COMMENT - CLOSED SESSION ITEMS

This time is reserved for members of the public to address the City Council on Closed Session Business items only. Oral comments must be made in person and are limited to three (3) minutes per speaker.

MEETING RECESSED TO CLOSED SESSION

The Council will reconvene in Open Session at 6:30 p.m. The Council may reconvene in Closed Session at the conclusion of the meeting, if necessary, to address any remaining items.

BUSINESS - CLOSED SESSION

1. **Matters Relating to Public Employment: Public Employee Performance Evaluations (pursuant to Gov. Code section 54957)**
   Positions: Jason Holley, City Manager

6:30 P.M. OPEN SESSION

CALL TO ORDER - OPEN SESSION

PLEDGE OF ALLEGIANCE

ROLL CALL - OPEN SESSION

CLOSED SESSION REPORT OUT / CONFIRMATION OF REPORTABLE ACTION

PROCLAMATIONS AND PRESENTATIONS

2. **Proclamation: National Community Planning Month 2026**

PUBLIC COMMENT - ITEMS NOT ON THE AGENDA

This time is reserved for members of the public to address the City Council on items not appearing on the agenda that are within the Council's jurisdiction. Comments are limited to three (3) minutes per speaker. Pursuant to the Brown Act, the City Council is generally prohibited from discussing or taking action on items not listed on the agenda.

AGENDA CHANGES

The City Council may change the order of the agenda or request discussion of an item on the Consent Calendar. Members of the public may request discussion of a Consent Calendar item during Public Comment.

CONSENT CALENDAR

3. **City Council Minutes of September 1, 2026**

Recommendation: Approve the minutes of the Regular City Council meeting held September1, 2026.

4. **Transportation Impact Fee Nexus Study and Fee Program Update Agreement**

Recommendation: Adopt a Resolution authorizing a $156,000 budget increase in the Traffic Impact Fee (TIF) Fund 320 and authorizing an agreement with Fehr & Peers in an amount not to exceed $156,000 to prepare a comprehensive update of American Canyon's transportation impact fee program, including the impact fee nexus study, capital improvement project list, and fee schedules.

5. **Approve an Addendum to the Certified General Plan Program Environmental Impact Report (Program EIR) (SCH No. 2022070038) and Conduct Final Reading and Adoption of the Hess/Laird Territory Special Study Pre-Zoning Ordinance**

Recommendation: Waive final reading, read by title only, and adopt an Ordinance to approve Special Study Pre-Zoning for the Hess/Laird Territory consistent with the General Plan (American Canyon Municipal Code Chapter 19.50) and approve an Addendum to the Certified General Plan Program Environmental Impact Report, finding the Ordinance consistent with the General Plan Program EIR.

6. **2026 Biennial City Conflict of Interest Code**

Recommendation: Adopt a Resolution approving the 2026 Conflict of Interest Code as amended, authorizing future updates by Resolution, and a uthorizing the City Clerk to complete and file the 2026 Local Biennial Notice.

7. **Approve an exemption from environmental review under the California Environmental Quality Act (CEQA) and conduct Final Reading and Adoption of the Accessory Animal Husbandry and Livestock Keeping Regulations Zoning Code Amendment**

Recommendation: Waive final reading, read by title only, and adopt an Ordinance to amend American Canyon Municipal Code Sections 19.05.090, 19.05.100, 19.10.040, and 19.31.020 to remove the prohibition on swine, limit livestock keeping to the Residential Estate (RE) Zoning district, and remove obsolete General Plan policy references.

8. **Approve an exemption from environmental review under the California Environmental Quality Act (CEQA) and conduct Final Reading and Adopt the Accessory Dwelling Unit, Density Bonus, and Inclusionary Housing Ordinance Update**
Recommendation: Waive final reading, read by title only, and adopt an Ordinance to amend the American Canyon Municipal Code to update Chapter 19.27 (Density Bonus), Chapter 19.28 (Inclusionary Housing), and Chapter 19.39 (Accessory Dwelling Units) consistent with current State laws and Housing Element Implementation Measures.

9. **Open Gov Budgeting, Financial Reporting, and Transparency Platform Software Agreement**
Recommendation: Adopt a Resolution to enter into an agreement with OpenGov for budgeting and transparency software solution.

10. **Approval of a Five-Year Agreement with Govinity, Inc. for Legislative and Public Meeting Management Software Services.**
Recommendation: Adopt a resolution approving a five-year agreement with Govinity, Inc. for legislative and public meeting management software services in an amount not to exceed $182,500 and authorizing the City Manager to execute the necessary documents.

PUBLIC HEARINGS

There are no Public Hearing items.

BUSINESS

11. **Water Treatment Plant Filter Media Replacement and Underdrain Repair Project (WA23-0200)**
Recommendation: Adopt a Resolution: 1) Amending the FY2026-27 Capital Budget and increasing the WA23-0200 project budget from $350,000 to $600,000; 2) awarding a Construction Agreement to ERS Industrial, Inc. in the amount of $492,800; and 3) authorizing the City Manager to approve and execute contract change orders in an amount not to exceed the $600,000 project budget, in conjunction with the Water Treatment Plant Filter Media Replacement and Underdrain Repair Project (WA23-0200).

12. **Melvin Road Pavement and Sewer Improvements**
Recommendation: Adopt a Resolution amending the Fiscal Year 2026-27 Capital Budget from $115,000 to $175,000 for the Melvin Road Pavement Rehabilitation Project (TR27-0100) and authorizing the City Manager to enter into an agreement with Coastland | DCCM for an amount not to exceed $194,446 for design services for the Melvin Road Pavement Rehabilitation Project (TR27-0100) and Melvin/Wilson Way Main Repair Project (WW27-0400).

13. **Support and Funding Commitment for State Route 29 Corridor Improvement Project**
Recommendation: Adopt a Resolution supporting the American Canyon State Route 29 Corridor Improvement Project and committing up to $5,000,000 in funding for future project phases.

MANAGEMENT / STAFF ORAL REPORTS

CITY COUNCIL COMMENTS / COMMITTEE REPORTS

City Council may provide brief comments on matters of public concern, announce matters of public interest, and provide Council Committee reports. No action will be taken.

14. City Council Committee Report - Mayor Pierre Washington

FUTURE AGENDA ITEM REVIEW

The City Council will review upcoming agenda items. Councilmembers may request that items be added to future City Council agendas.

15. Future Agenda Items of Note

ADJOURNMENT

CERTIFICATION

I, Taresa Geilfuss, City Clerk for American Canyon, do hereby declare that the foregoing agenda was posted in compliance with the Brown Act prior to the meeting date.

_____

Taresa Geilfuss, City Clerk

PUBLIC PARTICIPATION

This meeting is a limited public forum. The City expects respectful conduct from all participants. Offensive language or discriminatory remarks based on any protected classification under federal, state, or local law will not be tolerated, and the speaker may be immediately disconnected.

Meetings are conducted in person and are also available via Zoom. Meetings are broadcast live on Napa Valley TV, the City's website, and YouTube.

Zoom Link: Click here. **Webinar ID:** 847 1017 1711. **Passcode:** 123456. **Phone-in:** (408) 638-0968

Oral Comments: In person during Open/Closed Session, or via Zoom during Open Session only. Use "Raise Your Hand" during public comment periods only.

Written Comments: Submit via eComments on the City's Meetings & Agendas webpage. eComments close at 3:00 p.m. on the day of the meeting.

Agenda Materials: Posted 72 hours in advance at www.americancanyon.gov.

ADA: Requests for accommodations or alternative formats must be submitted at least three calendar days in advance to the City Clerk at 4381 Broadway, Suite 201, American Canyon, CA 94503 or cityclerk@americancanyon.gov.

Need Additional Assistance? Contact the City Clerk by phone at (707) 647-4369 or by email at cityclerk@americancanyon.gov.

CITY OF AMERICAN CANYON
PROCLAMATION

NATIONAL COMMUNITY PLANNING MONTH - OCTOBER 2026

WHEREAS, communities across the nation, including the City of American Canyon, must adapt to change; and

WHEREAS, community planning provides a framework to shape positive changes and informed choices about how we live, work, and enjoy life; and

WHEREAS, proactive decision-making helps decision-makers anticipate and overcome challenges; and

WHEREAS, the planning process helps reconcile diverse, and sometimes competing perspectives from all our residents and business community; and

WHEREAS, community planning furthers economic development by guiding long-term infrastructure and public service needs; and

WHEREAS, planning helps communities adapt and thrive in the face of environmental changes; and

WHEREAS, community planning helps to align local government policies and actions with long-term goals; and

WHEREAS, the American Planning Association designates October as National Community Planning Month to recognize and celebrate the contributions of sound planning across the United States.

NOW, THEREFORE, I, Mayor Pierre Washington, along with the City Council of American Canyon, do hereby proclaim October 2026 as Community Planning Month in the City of American Canyon.

Dated: September 15, 2026

_____

Pierre Washington, Mayor

CITY OF AMERICAN CANYON
REGULAR CITY COUNCIL MEETING

ACTION MINUTES
September 1, 2026

AMENDED AGENDA

5:30 P.M. CLOSED SESSION

CALL TO ORDER - CLOSED SESSION

The City Council meeting was called to order at 5:33 p.m.

ROLL CALL - CLOSED SESSION

Present: Councilmember Brando Cruz, Councilmember Melissa Lamattina, Vice Mayor Mark Joseph, Mayor Pierre Washington
Absent: None

PUBLIC COMMENT - CLOSED SESSION ITEMS

Mayor Washington opened a public comment period for Closed Session Items. Written comments: none. Oral comments: none. The public comment period was closed.

MEETING RECESSED TO CLOSED SESSION

BUSINESS - CLOSED SESSION

1. Conference with Real Property Negotiators - Authorized Pursuant to Government Code Section 54956.8Property: 4000 Paoli Loop Rd (APN 057-090-065). Agency negotiator: Jason Holley, City Manager. Under negotiation: Price and terms of property acquisition.

2. Conference with Legal Counsel - Existing Litigation. Authorized pursuant to Government Code Section 54956.9(d)(1): City of American Canyon v. Timothy Shea (Napa County Superior Court Case No. 20CVB)

6:30 P.M. OPEN SESSION

CALL TO ORDER - OPEN SESSION

The City Council meeting was called to order at 6:30 p.m.

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was recited.

ROLL CALL - OPEN SESSION

Present: Councilmember Brando Cruz, Councilmember Melissa Lamattina, Vice Mayor Mark Joseph, Mayor Pierre Washington
Excused: Councilmember David Oro

CLOSED SESSION REPORT OUT / CONFIRMATION OF REPORTABLE ACTION

A report on Closed Session and confirmation of reportable action was given by City Attorney Matthew Summers.

PROCLAMATIONS AND PRESENTATIONS

3. Proclamation: Hispanic Heritage Month

Mayor Washington announced the Hispanic Heritage Month proclamation. It was received by Karina Ceravantes.

4. Proclamation: Suicide Prevention Month

Mayor Washington announced the Suicide Prevention Month proclamation. It was received by John Bennett on behalf of Mentis.

6. America Canyon Library Update

Council received an American Canyon Library Update and presentation from Elizabeth Goff.

PUBLIC COMMENT - ITEMS NOT ON THE AGENDA

Mayor Washington opened a public comment period. Yvonne Baginski was called to speak; Sindy Biederman was called to speak; Justin Hamilton Hole was called to speak. The public comment period was closed.

AGENDA CHANGES

There were no changes to the agenda.

CONSENT CALENDAR

Action: Motion to adopt the CONSENT CALENDAR made by Vice Mayor Mark Joseph, seconded by Councilmember Melissa Lamattina, and CARRIED by roll call vote.

Yea: Councilmember Brando Cruz, Councilmember Melissa Lamattina, Vice Mayor Mark Joseph, Mayor Pierre Washington
Nay: None

Abstain: None
Excused: Councilmember David Oro

7. City Council Minutes of August 18, 2026
Action: Approved the minutes of the Regular City Council meeting held on August 18, 2026.

8. Second Reading and Adoption of the Backflow Prevention and Cross-Connection Control Ordinance
Action: Waived final reading, read by title only, and introduced Ordinance 2026-01 adding Chapter 13.08 to Title 13 of the American Canyon Municipal Code relating to Backflow Prevention and Cross-Connection Control; amending Chapter 13.04 relating to water service systems; amending Chapter 13.06 relating to water rates and connection fees; amending Section 16.14.080 relating to water efficient landscaping; amending Section 19.51.060 relating to standard conditions of approval; amending Title 14 relating to sewer and sanitation services; and amending Title 1 relating to general provisions.

PUBLIC HEARINGS

9. Hess/Laird Territory Special Study Pre-Zoning
Council received a Hess/Laird Territory Special Study Pre-Zoning staff report and presentation from Community Development Director Brent Coopeer. Mayor Washington opened the public hearing and a public comment period. Written comments: Yvonne Baginski, Susan Burns Cochran, Esq. Oral comments: Yvonne Baginski was called to speak; Leon Garcia was called to speak; Jeannete Goyche was called to speak; Travis McDowell was called to speak; Justin Hamilton Hole was called to speak. The public comment period and public hearing were closed.

Action: Motion to waive first reading, read by title only, and introduce Ordinance 2026-02 to approve Special Study Pre-Zoning for the Hess/Laird Territory consistent with the General Plan (American Canyon Municipal Code Chapter 19.50) made by Vice Mayor Mark Joseph, seconded by Councilmember Brando Cruz, and CARRIED by roll call vote.

Yea: Councilmember Brando Cruz, Councilmember Melissa Lamattina, Vice Mayor Mark Joseph, Mayor Pierre Washington
Nay: None
Abstain: None
Excused: Councilmember David Oro

10. Accessory Dwelling Unit, Density Bonus, and Inclusionary Housing Ordinance Update
Council received an Accessory Dwelling Unit, Density Bonus, and Inclusionary Housing Ordinance Update and presentation from Community Development Director Brent Cooper. Mayor Washington opened the public hearing and a public comment period. Written comments: none. Oral comments: Travis McDowell was called to speak; Sindy Biederman was called to speak; Justin Hamilton Hole was called to speak. The public comment period and public hearing were closed.

Action: Motion to waive first reading, read by title only, and introduce Ordinance 2026-03 to amend the American Canyon Municipal Code to update Chapter 19.27 (Density Bonus), Chapter 19.28 (Inclusionary Housing), and Chapter 19.39 (Accessory Dwelling Units) consistent with current State laws and Housing Element Implementation Measures made by Councilmember Brando Cruz, seconded by Councilmember Melissa Lamattina, and CARRIED by roll call vote.

Yea: Councilmember Brando Cruz, Councilmember Melissa Lamattina, Vice Mayor Mark Joseph, Mayor Pierre Washington
Nay: None
Abstain: None
Excused: Councilmember David Oro

11. Accessory Animal Husbandry and Livestock Keeping Regulations Zoning Code Amendment

Council received an Accessory Animal Husbandry and Livestock Keeping Regulations Zoning Code Amendment staff report and presentation from Community Development Director Brent Cooper. Mayor Washington opened the public hearing and a public comment period. Written comments: none. Oral comments: Sam J. Clerici was called to speak; Justin Hamilton Hole was called to speak. The public comment period and public hearing were closed.

Action: Motion to waive first reading, read by title only, and introduce Ordinance 2026-04 to amend American Canyon Municipal Code Sections 19.05.090, 19.05.100, 19.10.040, and 19.31.020 to remove the prohibition on swine, limit livestock keeping to the Residential Estate (RE) Zoning district, and remove obsolete General Plan policy references made by Councilmember Brando Cruz, seconded by Vice Mayor Mark Joseph, and CARRIED by roll call vote.

Yea: Councilmember Brando Cruz, Councilmember Melissa Lamattina, Vice Mayor Mark Joseph, Mayor Pierre Washington
Nay: None
Abstain: None
Excused: Councilmember David Oro

BUSINESS

12. Napa Olympia Rent Stabilization Mediation Budget Amendment

Council received a Napa Olympia Rent Stabilization Mediation Budget Amendment staff report and presentation from Community Development Director Brent Cooper. Mayor Washington opened a public comment period. Written comments: none. Oral comments: Tani K Murray was called to speak; Travis McDowell was called to speak; Sindy Biederman was called to speak; Claudia Sanchez was called to speak. The public comment period was closed.

Action: Motion to adopt Resolution 2026-67 increasing the Community Development Housing Division Contract Services Budget by $80,000 from $28,600 to $108,600 to fund

Mediation Services related to the Napa Olympia Mobilodge Rent stabilization matter made by Vice Mayor Mark Joseph, seconded by Councilmember Melissa Lamattina, and CARRIED by roll call vote.

Yea: Councilmember Brando Cruz, Councilmember Melissa Lamattina, Vice Mayor Mark Joseph, Mayor Pierre Washington
Nay: None
Abstain: None
Excused: Councilmember David Oro

MANAGEMENT / STAFF ORAL REPORTS

Council received oral updates from Deputy City Manager Alexandra Ikeda.

CITY COUNCIL COMMENTS / COMMITTEE REPORTS

The mayor and council members provided oral reports and announced items of community interest.

FUTURE AGENDA ITEM REVIEW

Future agenda items were reviewed.

13. Future Agenda Items of Note

ADJOURNMENT

The City Council meeting was adjourned at 8:47 p.m.

CERTIFICATION

Respectfully Submitted,

_____

Nicolle Hall, CMC, Deputy City Clerk

TITLE

Transportation Impact Fee Nexus Study and Fee Program Update Agreement

RECOMMENDATION

Adopt a Resolution authorizing a $156,000 budget increase in the Traffic Impact Fee (TIF) Fund 320 and authorizing an agreement with Fehr & Peers in an amount not to exceed $156,000 to prepare a comprehensive update of American Canyon's transportation impact fee program, including the impact fee nexus study, capital improvement project list, and fee schedules.

CONTACT

Erica Ahmann Smithies, P.E., Public Works Director
Noni Thomas, Management Analyst

BACKGROUND & ANALYSIS

Currently American Canyon imposes development impact fees to fund transportation improvements needed to serve new development and maintenance on existing infrastructure and facilities. Completing a nexus study to update the fee program ensures that fees remain proportionate to development impacts, are aligned with American Canyon's General Plan, Mobility Element, Capital Improvement Program (CIP), Vehicle Miles Traveled (VMT) policies, and housing production goals, and can be implemented efficiently by City staff.

On June 10, 2026 staff issued a request for proposals on the City's procurement portal, OpenGov to obtain a firm to prepare a comprehensive update to American Canyon's traffic / transportation impact fee program, including preparation of an impact fee nexus study, updated capital improvement project list, fee schedule, implementation recommendations, and related administrative procedures. From that request, three firms submitted proposals and of the three, Fehr & Peers submitted the most responsive and responsible proposal. The firm has a proven track record of successful collaboration with the City on prior initiatives.

Staff recommends entering into an agreement for Fehr & Peers to complete the transportation impact fee nexus study and fee program update in an amount not to exceed $156,000 over a one year period.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Transportation: "Improve the transportation network within the City to alleviate congestion and enhance the quality of life for the community."

FISCAL IMPACT

Funds for this item was not included in the Fiscal Year 26/27 Public Works budget. Approval of this recommended action will approve the proposed agreement and authorize a budget increase in the amount of $156,000 from the Traffic Impact Fee (TIF) fund 320-50-650-42160 for the expenditure. The current available fund balance of the TIF fund is approximately $5.3M, of that, $4.969M is committed to TR26-0200 for the Rio Del Mar extension, leaving a balance of $180,000 prior to anticipated revenues.

ENVIRONMENTAL REVIEW

15378(b) - The action is not a "Project" subject to the California Environmental Quality Act ("CEQA") because it does not qualify as a "Project" under Public Resources Code Sections 21065 and 21080 and in Section 15378(b) of Title 14 of the California Code of Regulations.

COMMUNICATION

Level 1: Minimal Communication

ATTACHMENTS:

1. Resolution Fehr & Peers.pdf
2. RFP Transportation Nexus Fee Study.pdf
3. F&P Proposal.pdf

RESOLUTION NO. 2026-

RESOLUTION AUTHORIZING A $156,000 BUDGET INCREASE IN THE TRAFFIC IMPACT FEE (TIF) FUND 320, AND AUTHORIZING AN AGREEMENT WITH FEHR & PEERS IN AN AMOUNT NOT TO EXCEED $156,000 TO PREPARE A COMPREHENSIVE UPDATE OF AMERICAN CANYON'S TRANSPORTATION IMPACT FEE PROGRAM, INCLUDING THE IMPACT FEE NEXUS STUDY, CAPITAL IMPROVEMENT PROJECT LIST, AND FEE SCHEDULES

WHEREAS, currently development impact fees are imposed to fund transportation improvements needed to serve new developments and maintenance on existing infrastructure and facilities; and

WHEREAS, there is a need to complete a nexus study to update the fee program to ensure that the fees remain proportionate to development impacts, are aligned with the city's General Plan, Mobility Element, Capital Improvement Program, Vehicle Miles Traveled (VMT) policies, and housing production goals; and

WHEREAS, the city posted a request for proposals in June 2026 on the OpenGov procurement portal, three proposals were received; and

WHEREAS, Fehr & Peers was the most responsive and responsible proposer; and

WHEREAS, the funding was not previously budgeted within the City Engineer budget ; and

WHEREAS, authorizing a budget increase in the Traffic Impact Fee (TIF) Fund 320, that has a current fund balance of approximately $5.3M; of that $4.969M is committed to TR26-0200 – Rio Del Mar extension, leaving a balance of $180,000 prior to anticipated revenues; and

WHEREAS, the action authorized by this Resolution is not a "project" under the California Environmental Quality Act pursuant to CEQA Guidelines section 15378(b), because it consists of organizational, administrative, and fiscal activities that will not result in a direct or reasonably foreseeable indirect physical change in the environment.

NOW, THEREFORE, BE IT RESOLVED that the City Council hereby authorizes a $156,000 budget increase in the Traffic Impact Fee (TIF) Fund 320, and authorizes an agreement with Fehr & Peers in an amount not to exceed $156,000 to prepare a comprehensive update of American Canyon's transportation impact fee program, including the impact fee nexus study, capital improvement project list, and fee schedules.

PASSED, APPROVED and **ADOPTED** at a regularly scheduled meeting of the City Council of the City of American Canyon held on the 15th day of September, 2026 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Pierre Washington, Mayor

ATTEST:

_____
Taresa Geilfuss, CMC, City Clerk

APPROVE AS TO FORM:

_____
Matthew T. Summers, City Attorney

CITY OF AMERICAN CANYON

STATE OF CALIFORNIA

REQUEST FOR PROPOSAL

FOR THE

TRANSPORTATION IMPACT FEE NEXUS STUDY AND FEE PROGRAM UPDATE

PROJECT NUMBER TBD

DATE ISSUED: June 10, 2026

RFP OPENING DATE: July 15, 2026

RFP OPENING TIME: 5:00 pm

CITY OF AMERICAN CANYON

TRANSPORTATION IMPACT FEE NEXUS STUDY AND FEE PROGRAM UPDATE

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2. Description of the Government
3. Scope of Work
4. Proposal Requirements
5. General Information
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7. Evaluation Criteria
8. Consultant Selection and Contract Award
9. Standard Contract Information
10. Proposer Questionnaire

Attachments:

A - American Canyon Professional Services Agreement Template - 2026

1. Introduction

1.1. Summary

STATEMENT OF PURPOSE

The City of American Canyon is soliciting proposals from qualified firms or individuals ("Proposer") to prepare a comprehensive update to American Canyon's traffic / transportation impact fee program, including preparation of an impact fee nexus study, updated capital improvement project list, fee schedule, implementation recommendations, and related administrative procedures.

After recently updating its new General Plan, American Canyon's objective is to modernize its existing AB 1600 traffic impact fee program into a legally defensible, transparent, and administratively practical transportation impact fee program that reflects current California law, including the Mitigation Fee Act, AB 602, SB 743 / VMT requirements, residential fee timing requirements, and best practices for impact fee administration.

More details on the City's needs for this work are provided in the scope of work.

Each qualified Proposer is to submit a proposal in conformity with the terms of this Request for Proposal ("RFP") by the deadline below ("Proposal"). The Proposer selected by the City pursuant to the terms of this RFP and the City's contracting procedures, if any is selected, is referred to herein as "Consultant."

SYNONYMOUS TERMS

Unless the use indicates otherwise, as used throughout this bid and its attachments, the following terms are synonymous:

a. Firm, Consultant, Supplier, Vendor, Contractor, Successful Bidder, Offeror

b. Purchase Order, Contract, Agreement

c. Services, Work, Scope, and Project

d. Pricing proposal/sheet, Cost proposal/sheet, Rate table/sheet

1.2. Background

American Canyon currently imposes development impact fees to fund transportation improvements needed to serve new development. American Canyon desires to update the fee program to ensure that fees remain supported by a current nexus study, are proportionate to development impacts, are aligned with American Canyon's General Plan, Circulation Element, Capital Improvement Program (CIP), VMT policies, and housing production goals, and can be implemented efficiently by City staff.

The selected consultant will work closely with City staff, American Canyon Attorney, and other City consultants as needed. The consultant will be expected to prepare a complete nexus study

and fee program suitable for public review, Planning Commission and/or City Council consideration, and future implementation.

1.3. Contact Information

Noni Thomas
Management Analyst - Public Works
4381 Broadway Street
American Canyon, CA 94503
Email: nthomas@americancanyon.gov
Phone: (707) 980-2445

Department:
Public Works

Department Head:
Erica Ahmann Smithies
PW Director

1.4. Timeline

Project Release Date	June 10, 2026
Question Submission Deadline	July 1, 2026, 1:00pm
Question Response Deadline	July 8, 2026, 3:00pm
Response Submission Deadline	July 15, 2026, 5:00pm
Consultant Selection Date	August 5, 2026

2. Description of the Government

2.1. Description of the Government

The City of American Canyon is located at the southeastern end of Napa County with a population of 21,742. The City's fiscal year begins on July 1 and ends on June 30.

The City of American Canyon was incorporated in 1992 as a general law city which operates under a council/manager form of government. The City is located at the southern end of the wine growing region known as the Napa Valley, and is in close proximity to the San Francisco Bay and related wetlands. The city government is divided into five departments: Administration, Public Works, Community Development, Finance, and Parks and Recreation. The City also operates and maintains water, recycled water and wastewater systems. The City also provides contracted transportation services. Law Enforcement and animal control services are provided by Napa County Sheriff's Department. Fire and Paramedic Service is provided by the American Canyon Fire Protection District.

The City will administer the proposal process in accordance with the terms and dates outlined in this RFP; however, the City reserves the right to modify the activities, timeline, or any other aspect of the process at any time, as deemed necessary. By requesting proposals, the City is in no way obligated to award a contract or pay the expenses of proposer in connection with the preparation or submission of a proposal. The award of any contract shall be contingent on the requisite staff and Council approvals.

3. Scope of Work

3.1. Scope of Work

The following is a list of tasks that are intended to be the responsibility of the (Consultant or Contractor) pursuant to this Request for Proposals ("Scope of Work").

American Canyon expects the selected consultant to perform the following tasks. Proposers may recommend modifications or additional tasks that would improve the final work product.

Project Management and Kickoff

The consultant shall:

- Conduct a kickoff meeting with City staff and American Canyon Attorney.
- Confirm project goals, schedule, deliverables, communication protocols, and decision points.
- Prepare a detailed project schedule.
- Identify data needs and assign responsibilities for data collection.
- Review existing City documents, including but not limited to:
    - Current traffic impact fee program.
    - Current fee schedule.
    - Prior nexus studies.
    - General Plan and Mobility Element.
    - Housing Element.
    - Specific plans, area plans, and development agreements.
    - 5-year CIP.
    - American Canyon Active Transportation Plan, Complete Streets policies, and VMT policies.
    - Recent traffic studies, transportation models, and development projections.
    - Annual and five-year AB 1600 / Mitigation Fee Act reports.
    - Development pipeline and approved-but-unbuilt projects.

- Napa Valley Transportation Authority's Highway 29 Multimodal Project Draft EIR and Project Initiation Document.
- Napa Valley Transportation Authority's Transit Plan

Legal and Policy Framework Review

The consultant shall prepare a concise legal and policy framework, in coordination with American Canyon Attorney, addressing:

- Mitigation Fee Act requirements.
- AB 602 nexus study requirements.
- Residential square-footage fee calculation requirements.
- Required findings for any alternative residential fee methodology.
- Requirements for identifying existing and proposed levels of service.
- Requirements for reviewing prior fee assumptions if the updated study supports a fee increase.
- Requirements for CIP planning.
- Annual and five-year reporting requirements.
- Residential fee collection timing requirements.
- SB 743 / VMT considerations.
- Relationship between CEQA mitigation, local transportation standards, and development impact fees.
- Any relevant housing-related limitations on traffic impact fees, roadway widening requirements, or exactions.

The consultant is not expected to provide legal advice, but shall prepare technical work products suitable for City Attorney review.

Growth Forecast and Land Use Assumptions

The consultant shall prepare development projections to be used in the fee calculation. The analysis shall include:

- Existing land use and development inventory.
- Future growth assumptions by land use category.
- Residential growth by unit type and/or residential square footage.
- Nonresidential growth by land use type, square footage, employees, trips, VMT, or other appropriate metric.

- Consistency with the General Plan, Housing Element, regional growth assumptions, and approved development pipeline.
- Identification of growth within any specific plan areas, priority development areas, or geographic benefit districts.
- Recommended planning horizon for the fee program.

The consultant shall clearly identify the data sources, assumptions, and methodology used.

Transportation Facility Needs and Project List

The consultant shall develop an updated list of fee-eligible transportation improvements. The project list may include, as appropriate:

- Roadway and intersection improvements.
- Complete streets improvements.
- Bicycle and pedestrian facilities.
- Transit-supportive improvements.
- Safe routes to school improvements.
- Traffic signals and intelligent transportation systems.
- Railroad crossing improvements.
- Bridges, overcrossings, undercrossings, or interchange improvements.
- VMT-reducing infrastructure.
- Planning, engineering, design, right-of-way, environmental clearance, construction management, and program administration costs, where legally appropriate.

For each project or project category, the consultant shall identify:

- Project description.
- Location.
- Planning-level cost estimate.
- Basis for cost estimate.
- Existing deficiency component, if any.
- Growth-related component.
- Fee-eligible cost share.
- Non-fee funding sources, if known.

- Relationship to General Plan, Mobility Element, CIP, specific plan, VMT policy, or other adopted City policy.
- Whether the project supports local circulation, multimodal access, VMT reduction, safety, or other transportation objectives.

Existing and Proposed Level of Service / Facility Standard Analysis

Utilizing the new General Plan, the consultant shall identify, where applicable:

- Existing facility standards or levels of service.
- Proposed facility standards or levels of service.
- Explanation of why any proposed new or revised standard is appropriate.
- Relationship between facility standards and future development.
- How the standards are used to determine facility needs and fee amounts.

The consultant should not rely solely on automobile delay or roadway level of service unless appropriate for a non-CEQA local circulation purpose and clearly distinguished from CEQA VMT analysis.

Nexus Analysis and Fee Methodology

The consultant shall prepare a nexus analysis that supports the required findings for adoption of the fee program. The study shall identify:

- The purpose of the fee.
- The use of the fee.
- The public facilities to be funded.
- The relationship between the fee-funded facilities and the types of development paying the fee.
- The relationship between the need for the facilities and the types of development paying the fee.
- The relationship between the fee amount and the cost attributable to new development.
- The reasonable allocation of costs among land use categories.
- The treatment of existing deficiencies and non-growth costs.
- The treatment of grants, regional funding, developer obligations, and other non-fee sources.
- Any proposed geographic benefit areas or fee zones.
- The maximum legally supportable fee by land use category.

- Recommended adopted fee levels, if different from the maximum supportable fee.

The consultant shall evaluate fee methodologies that may include trip generation, person trips, VMT, equivalent dwelling units, residential square footage, nonresidential square footage, employees, or other appropriate measures.

Residential Fee Methodology and AB 602 Compliance

For housing development projects, the consultant shall calculate fees proportionately to residential square footage unless the consultant recommends and supports an alternative methodology.

If an alternative residential fee methodology is recommended, the consultant shall prepare substantial technical support and proposed findings explaining:

- Why square footage is not an appropriate metric.
- Why the alternative metric establishes a reasonable relationship between the fee and the burden of development.
- How the fee structure avoids disproportionate impacts on smaller residential developments.

The consultant shall also evaluate whether fee reductions, phase-ins, or other policies are appropriate for smaller units, affordable housing, accessory dwelling units, mixed-use projects, infill projects, or transit-supportive development.

SB 743 / VMT and Multimodal Transportation Alignment

The consultant shall evaluate how the transportation impact fee program should align with SB 743 and American Canyon's VMT policies. This task shall include:

- Identifying projects that reduce or avoid VMT.
- Identifying projects that support walking, bicycling, transit, safety, or complete streets.
- Distinguishing between CEQA VMT mitigation and local transportation infrastructure funding.
- Evaluating whether a VMT-based, trip-based, or hybrid fee methodology is appropriate.
- Recommending how American Canyon should treat roadway capacity projects within the fee program.
- Recommending whether any fee-funded projects should be characterized as VMT mitigation, local circulation improvements, safety improvements, or multimodal improvements.

Fee Program Administration

The consultant shall prepare recommendations for implementation and administration of the fee program, including:

- Fee collection timing.
- Residential fee deferral requirements.
- Credits for developer-constructed improvements.
- Reimbursements.
- Fee exemptions or reductions.
- Annual inflation adjustment.
- Fee appeals.
- Treatment of change of use, redevelopment, expansion, and replacement development.
- Treatment of mixed-use projects.
- Treatment of accessory dwelling units.
- Treatment of affordable housing.
- Treatment of development agreements and vested projects.
- Geographic fee zones or benefit districts, if recommended.
- Coordination with American Canyon's CIP and budget process.
- Annual reporting procedures.
- Five-year findings procedures.
- Website transparency requirements.
- Internal staff workflow for calculating, collecting, tracking, and reporting fees.

Stakeholder Outreach and Public Meetings

The consultant shall support City staff in conducting public outreach and adoption proceedings. The proposal should include assumptions for the number and type of meetings, which may include:

- Staff working meetings.
- Development community stakeholder meeting.
- Planning Commission study session or recommendation hearing.
- City Council study session.
- City Council public hearing for adoption.
- Meetings with regional transportation agencies or partner agencies, if needed.

The consultant shall prepare presentation materials, respond to technical questions, and revise documents based on public, staff, and City Attorney comments.

Draft and Final Deliverables

The consultant shall prepare the following deliverables:

A. Project schedule and data request memorandum.

B. Existing fee program assessment.

C. Growth forecast and land use assumptions memorandum.

D. Transportation facility needs and project list.

E. Planning-level cost estimates.

F. Existing and proposed level of service / facility standard analysis.

G. Draft nexus study.

H. Draft fee schedule.

I. Draft implementation and administration recommendations.

J. Draft ordinance or resolution exhibits, in coordination with American Canyon Attorney.

K. Public hearing presentation materials.

L. Response to comments memorandum.

M. Final nexus study.

N. Final fee schedule.

O. Final implementation guide.

P. Excel-based fee calculation model.

Q. Excel-based annual reporting / tracking template.

R. Electronic copies of all final documents in Word, Excel, and PDF formats.

3.2. City-Provided Information

American Canyon anticipates making the following information available to the selected consultant:

- Current fee schedule.
- Existing traffic impact fee nexus study.
- General Plan and Circulation Element.
- Housing Element.

- 5-yr CIP.
- Transportation plans and studies.
- VMT policies and thresholds.
- Development pipeline.
- Building permit and development data.
- Prior annual and five-year Mitigation Fee Act reports.
- GIS data, if available.
- Relevant specific plans and development agreements.

Additional information from the Napa Valley Transportation Authority will also be made available.

3.3. Disadvantaged Business Enterprise (DBE) Goal

[If there are special DBE requirements, use the following, if none, delete this entire section]

The City has set an **X%**Disadvantaged Business Enterprise (DBE) participation goal for this project.

3.4. Term of Contract

The initial term of the Contract is at the City's discretion and may be up to 3 years. The City also reserves the right to extend the Contract for up to 2 additional 1-year terms (individually, “Extension”) upon the same terms and conditions as parties agreed to in the Contract. Thus, parties agree the Contract may be for a total of 5 years upon the same terms and conditions as parties agreed in the Contract if necessary.

4. Proposal Requirements

4.1. Proposal Format & Content

Proposer Questionnaire must include each of the following sections to be uploaded in the Proposer Questionnaire section.

A. Proposal Transmittal Letter

B. Proposer's Mandatory Qualifications and Experience

C. Technical Project Approach

D. Cost Proposal

Specific content and format requirements for each section are detailed below.

Each section shall be uploaded in the Proposer Questionnaire section of this RFP.

4.2. Proposal Transmittal Letter

A Proposer is required to provide a written transmittal letter and offer in the form of a standard business letter ("Proposal Transmittal Letter" or "Letter"). The Proposal Transmittal Letter shall reference and respond to the following subsections in sequence and have attached to it corresponding documentation, as required. A Proposal Transmittal Letter is mandatory and failure to provide the required information may result in the proposal being considered nonresponsive and rejected.

A. Proposer's Name and Contact. The Letter shall state the complete name, or business name, of the Proposer making the Proposal. The Letter shall state the name, title, mailing address, email address, and telephone number of the person the City should contact regarding the Proposal.

B. Statement of Offer. The Letter shall state that the Proposal is an offer to complete the Scope of Work and the offer, including the Cost Proposal rates and budget, remains valid for at least ninety (90) business days after the Proposal due date.

C. Conflict of Interest. The Letter shall state whether the Proposer, or any individual who shall perform work under the Contract, has a possible conflict of interest and, if so, the nature of that conflict. The City reserves the right to terminate the Contract if its execution would or could create, or give the appearance of creating, a conflict of interest. The City, at its sole discretion, shall make all determinations on the existence or appearance of a conflict of interest.

D. City Contract Terms. The Letter shall include a statement of acknowledgement that the City's standard contract and insurance (Included in Attachments) have been reviewed and accepted by the Proposer with or without qualification.

   1. If the Proposer has qualifications, the Proposer shall download a copy of the standard contract and re-upload a version of the document in the Proposer Questionnaire under Standard City Contract Qualifications identifying the contract language at issue and Proposer's suggested adjustment or modification.

   2. If no qualifications are identified, Proposer is presumed to have accepted the City's standard contract and be capable of completing the Scope of Work, as well as all reasonably associated managerial tasks, without reservation or qualification.

E. Subcontractors. The Letter shall state whether the Proposer intends to use subcontractors, subconsultants, or other contracting parties to complete the Scope of Work (collectively, "Subcontractors"). If so, the Letter shall clearly identify the name of each proposed Subcontractor, their mailing address, email address, and telephone number as well as the service related to the Scope of Work that the Subcontractor is anticipated to perform. NOTE: The Consultant must obtain written approval from the City prior to the use of any Subcontractor, even after a Contract is executed.

F. Signature and Authority. The Letter shall be signed by a person empowered to bind the Proposer to the provisions of the RFP, and any contract awarded pursuant to it.

Evidence demonstrating authority to bind the Proposer shall be included or attached to the Letter, such as a statement describing the signatory's role with or relationship to the Proposer.

4.3. Proposer's Mandatory Qualifications and Experience

A Proposal shall demonstrate that the Proposer holds the qualifications and experience required to complete the Scope of Work by referencing and responding to the following subsections in sequence and attaching corresponding documentation, as required ("Mandatory Qualifications and Experience"). The qualifications and experience listed below are mandatory and failure to provide the required information may result in the proposal being considered nonresponsive and rejected.

A. Organization. A brief description of Proposer's background, years in business, organizational history, and client base. Briefly state Proposer's total number of employees and list all relevant licenses, specialties, and trainings held by Proposer and/or employees. List office location(s) and identify the office(s) from which services will be performed.

B. Experience. A brief statement of how long Proposer has been performing the services required to complete the Scope of Work. Proposer shall have a minimum of five (5) years of experience providing the services required to complete the Scope of Work to public agencies in California. If the Proposer has been in business for less than five years, the experience of its principals may be used to meet this requirement.

C. Public Agency Experience. A description of no more than ten (10) public sector projects completed within the last five (5) years that demonstrates Proposer's experience performing services to complete the Scope of Work, including a statement as to whether Proposer has experience working for the City of West Sacramento, or a public agency similar in size to the City. Note key personnel involved in each project and if they are proposed for this Proposal and if applicable, differentiate which work was performed by subcontractor. List any contractual relationships with the City existing now or within the past five (5) years.

D. Personnel. A narrative description, resume, and organizational structure chart of personnel to be assigned to complete tasks within the Scope of Work, clearly indicating where Subcontractors will be used, if applicable. The narrative description or resume shall list, at least, each individual’s title, education, relevant experience and duration, professional licenses, and demonstrated accomplishments. Identify the individual who will lead the day-to-day work effort and serve as the primary contact to the City.

E. References. A list of five (5) references for whom the services required to complete the Scope of Work have been performed by Proposer within the last three (3) years. The list of references shall include name, mailing address, email address, brief description of services completed relevant to this RFP, and point of contact who can attest to the quality and effectiveness of the services.

F. History. A statement as to whether there have been any mergers, acquisitions, or sales related to Proposer's organizational structure within the last three (3) years. If so, attach an explanation providing relevant details.

G. Legal Challenges. Astatement as to whether there is any pending litigation against the Proposer. If such litigation exists, attach an opinion of counsel as to whether the pending litigation will impair the Proposer's ability to perform the Contract.

H. Fiscal Viability. A statement as to whether, in the last ten (10) years, the Proposer has filed (or had filed against it) any bankruptcy or insolvency proceeding, whether voluntary or involuntary, or undergone the appointment of a receiver, trustee, or assignee for the benefit of creditors. If so, attach an explanation providing relevant details.

4.4. Technical Project Approach

A document detailing the operational and/or organizational approach the Proposer will take to timely fulfill the Scope of Work shall be submitted with the Proposal ("Technical Project Approach"). The Technical Project Approach shall be a comprehensive narrative describing how the Proposer will complete the Scope of Work, communicate with the City throughout the work, advance the project objectives, and provide continuity on work efforts.

4.5. Cost Proposal

A document detailing all costs associated to complete the Scope of Work shall be submitted with the Proposal ("Cost Proposal"). For sealed bids, the Cost Proposal shall be opened after and separately from the rest of the Proposal. Cost Proposal shall include all applicable federal, state, and local taxes and must be all-inclusive of project expenses, as no additional charges shall be allowed, except for additional services as requested by the City, if any. There shall be no additional reimbursement for travel time or expenses, telephone costs, copying costs, etc.

If applicable, the Cost Proposal shall separately delineate costs for optional term extensions and/or optional services. Proposer agrees to maintain pricing pursuant to the Cost Proposal for the duration of the Contract, and any optional extensions.

5. General Information

5.1. Proposal Submission

All Proposals, including any attachments, exhibits, or amendments, shall be submitted through the City's E-Procurement Portal, which will deliver Proposals to the City of American Canyon staff overseeing the solicitation. Proposals not submitted through the City's E-Procurement Portal shall be deemed nonresponsive and rejected. Proposals may not be delivered orally, by paper, by email, by facsimile transmission, or by any other means.

All proposals shall be submitted through the City's e-Procurement Portal no later than:

Wednesday, July 15, 2026 at 5:00 pm.

A Proposer shall respond to the RFP and any exhibits, attachments, or amendments.

A Proposer's failure to submit a Proposal in compliance with the procedures and timelines set forth in the RFP shall cause the Proposal to be deemed nonresponsive and rejected. A late Proposal shall not be accepted. Additional time to respond shall not be granted to any Proposer.

5.2. Questions and/or Objections

It is to the City and Proposer's benefit that questions and objections are brought to the City's attention so it may issue necessary amendments to the RFP and help prevent the opening of defective proposals upon which the City could not award a Contract. Proposer should carefully review this RFP and all attachments for comments, questions, defects, objections, or any other matter requiring clarification or correction (collectively, “Questions”).

A Proposer may submit Questions related to this RFP to the City through the City’s e-Procurement Portal at or before:

Wednesday, July 1, 2026 at 1:00 pm.

Questions shall be considered waived and invalid if not brought to the attention of the City in conformity with this subsection. Questions not submitted through the City's e-Procurement Portal will not be accepted or responded to. Questions submitted after the deadline will not be accepted or responded to. Questions and answers will be posted on the City's e-Procurement Portal and visible to all.

Any revisions to the Standard Contract should be in the Proposal Transmission Letter and shown in redline, as described above. (4.2.D)

5.3. General Proposal Format Requirements

A. The City discourages lengthy and costly proposals. A Proposal should be prepared simply and economically and provide a straightforward, concise description of the Proposer's capabilities to satisfy the requirements of this RFP. Emphasis should be on conformity to the City’s instructions, requirements of this RFP, and completeness and clarity of content.

B. A Proposal must address all portions of the RFP, provide all information requested, and comply with all formatting requirements detailed herein.

C. A Proposal must be labeled and organized as requested in this RFP, including using section headers. Failure to follow the specified format, to label the responses correctly, or to address all of the subsections may, at the City’s sole discretion, result in the rejection of a Proposal.

D. A Proposal must not contain extraneous information. All information presented in a Proposal must be relevant to, and in response to, a requirement of this RFP. Any information not meeting these criteria shall be deemed extraneous and shall in no way contribute to the evaluation process.

E. A Proposal shall be prepared on standard 8 1/2" x 11" formatted electronic documents. Foldouts containing charts, spreadsheets, and other exhibits are permissible but

Proposer shall be reminded that responses will be read electronically through the City's e-Procurement Portal.

F. All responses, as well as any reference material presented, must be written in English.

G. All monetary amounts must be detailed in United States currency.

H. All uploaded proposal pages must be numbered. Proposals shall be limited to a total of twenty-five (25) pages and should not include unnecessary company advertisement material. Resumes and references are part of the proposal package and will be included as part of the total page count. Cost proposals may be excluded.

5.4. Proposal Preparation, Interview, and Negotiation Costs

The City shall not be responsible for, nor shall it pay, any costs associated with the preparation, proposal, or presentation of any Proposal, or costs incurred by the Proposer during the preparation of the Proposal, the Proposal Evaluation Process, or Contract Award Process.

5.5. Proposal Withdrawal

A Proposal may be withdrawn at any time by clicking "unsubmit" on the City's e-Procurement Portal. If after withdrawing a Proposal and before the deadline to submit a Proposal, a Proposer may submit another Proposal.

5.6. Proposal Amendment

A Proposal may be amended prior to the deadline to submit a Proposal by unsubmitting and resubmitting a Proposal on the City's e-Procurement Portal. After the deadline to submit a Proposal, the City shall not accept any amendments, revisions, or alterations to a Proposal.

5.7. Proposal Errors

Proposers are liable for all errors or omissions contained in their Proposal. A Proposer is prohibited from altering a Proposal through any means after the deadline for submitting a proposal.

5.8. Incorrect Proposal Information

If the City determines that a Proposer has provided, for consideration in the Proposal Evaluation Process or Contract Award Process incorrect information which the Proposer knew or should have known was materially incorrect, the Proposal may be rejected by the City, at its sole discretion.

6. Terms and Conditions

6.1. Executive Order N-6-22 – Russia Sanctions

On March 4, 2022, Governor Gavin Newsom issued Executive Order N-6-22 (the EO) regarding Economic Sanctions against Russia and Russian entities and individuals. "Economic Sanctions" refers to sanctions imposed by the U.S. government in response to Russia's actions in Ukraine, as well as any sanctions imposed under state law. By submitting a bid or proposal, Contractor represents that it is not a target of Economic Sanctions. Should the State determine Contractor is a target of Economic Sanctions or is conducting prohibited transactions with sanctioned

individuals or entities, that shall be grounds for rejection of the Contractor's bid/proposal any time prior to contract execution, or, if determined after contract execution, shall be grounds for termination by the State.

6.2. Assignment and Subcontracting

The Contractor may not subcontract, transfer, or assign any portion of the Contract without prior written approval from the City. Any subcontractor, subconsultant, or other contracting parties (collectively, "Subcontractor") must be specifically approved in writing by the City. Inclusion of a subcontractor in a Proposal does not guarantee the City's later approval of a Subcontractor.

Notwithstanding the use of an approved Subcontractor, the Contractor shall remain the prime contractor and responsible for all work performed under the Contract and pursuant to this RFP.

6.3. RFP Amendment and Cancellation

The City reserves the right to amend, cancel, or reissue this RFP at any time and at its sole discretion. Any amendment shall be in writing and posted to the City's e-Procurement portal. A potential Proposer is solely responsible for clicking "Follow" on the RFP page to receive notifications and shall be solely responsible for complying with such notifications.

6.4. Right of Rejection

A. The City reserves the right, at its sole discretion, to reject any and all Proposals, no matter their level of responsiveness, or to cancel this RFP in its entirety.

B. A Proposer must comply with all of the terms and instruction of this RFP, and all applicable state and local laws and regulations. Any Proposal that does not meet the requirements of this RFP may be considered to be nonresponsive and rejected.

C. A Proposer may not restrict the rights of the City or otherwise qualify a Proposal. If a Proposer does so, the City may determine the Proposal is a nonresponsive counteroffer, and the Proposal may be rejected.

D. The City reserves the right, at its sole discretion, to waive variances in a Proposal, provided such action is in the best interest of the City. Where the City waives variances in a Proposal, such waiver does not modify the RFP requirements or excuse the Proposer from full compliance with the RFP. Notwithstanding any variance, the City may hold any Proposer to strict compliance with the RFP.

6.5. Prohibition of Respondent Terms and Conditions

A Proposer shall not submit their own contract terms and conditions in a Proposal. If a Proposal contains such terms and conditions, the City, at its sole discretion, may reject the Proposal. A Proposer may either submit Questions to gain clarification on a term of the City's standard contract or submit proposed revisions to the City's standard contract in redline as part of the Proposal Transmission Letter, both pursuant to the terms of this RFP.

6.6. Joint Ventures and Partnering

A Proposal from joint ventures or entities partnering for a specific service must be designed to minimize any administrative burden on the City as a result of the participation of multiple entities. Joint proposals must adhere to the following:

A. The Proposer shall respond to each section and subsection of this RFP.

B. The Proposal shall clearly set forth the respective responsibilities and functions that each Principal of the joint venture or partnering entities would perform if awarded a Contract pursuant to this RFP.

C. The Proposal must include a copy of the joint venture or partnering agreement(s) that identify the Principals involved, as well as their rights and responsibilities regarding the Contract pursuant to this RFP.

D. The Proposal Transmittal Letter must be signed by each Principal of the joint venture and include all required information.

6.7. Proposal of Alternate Services

A Proposal for alternate services (i.e., proposals that offer something different from that requested by the RFP) will be considered nonresponsive and rejected.

6.8. Proposal of Additional Services

A Proposal may indicate and offer services in addition to those required by this RFP. These additional services may be added to the Contract, at the sole discretion of the City. The cost for any such additional services shall be mutually agreed upon by the Contractor and the City, and incorporated into the Contract before execution.

6.9. Severability

If any provision of this RFP is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected, and the rights and obligations of the City and Proposers shall be construed and enforced as if the RFP did not contain the particular provision held to be invalid.

6.10. Licensure and Special Certification

Before executing the Contract pursuant to this RFP, the Contractor must hold all necessary business and professional licenses and certifications to complete the Scope of Work. The City may require any or all Proposers to submit evidence of proper licensure and certifications.

6.11. Disclosure of Proposal Contents

All Proposals and other materials submitted to the City related to this RFP shall become the property of the City. Selection or rejection of a Proposal does not affect this right. All proposal information, including detailed price and cost information, shall be held in confidence during the evaluation and selection process. Upon the completion of the evaluation and selection process, or by rejection of all Proposals, the Proposals and shall be open for review by the public to the extent required by the California Public Records Act, Government Code section 6254 et seq..

By submitting a Proposal, a Proposer acknowledges and accepts that the contents of the Proposal and associated documents shall become open to public inspection.

Portions of a Proposal exempt from public disclosure by law may be protected from public disclosure by the City. A Proposer is required to clearly label such portion of a Proposal "CONFIDENTIAL" and list the grounds for non-disclosure. In doing so, the Proposer thereby agrees to indemnify and defend the City from any action arising from the non-disclosure of the information. The failure to so label any information shall constitute a complete waiver of all claims for damages caused by or related to any release of the information.

6.12. Conflict of Interest and Restrictions

By submitting a Proposal, the Proposer certifies that no amount shall be paid directly or indirectly to an employee or official of the City as wages, compensation, or gifts in exchange for acting as an officer, agent, employee, subcontractor, or consultant to the Proposer in connection with the procurement under this RFP.

6.13. Proprietary Information

A copy of each Proposal shall be retained for official files and will become public record after the award of a contract unless the Proposal, or specific parts of the Proposal, can be shown to be exempt by law. Each Proposer may clearly label any part of a Proposal as "CONFIDENTIAL." In doing so, the Proposer thereby agrees to indemnify and defend the City for withholding the information from public inspection. Failure to label information shall constitute a complete waiver of all claims for damages caused by or related to any release of the information.

If a public records request for appropriately-labeled information is received by the City, the City will endeavor to notify the Proposer of the request and delay access to the material until seven (7) working days after the City's notice. Within that time delay, it will be the duty of the Proposer to act in protection of its labeled information. Failure to so act shall constitute a complete waiver.

7. Evaluation Criteria

No.	Evaluation Criteria	Scoring Method	Weight (Points)
1.	**Proposer Understanding** Information and completeness of a Proposal in conformity with the requirements in the RFP.	Points Based	40 *(40% of Total)*
2.	**Proposer Qualifications and Experience** Qualifications and experience of the Proposer and members of the team that may be assigned tasks within the Scope of Work.	Points Based	30 *(30% of Total)*

3.	**Proven Ability** Ability to complete the Scope of Work, as described in the Proposal, including experience completing projects for public agencies similar to the City.	Points Based	30 *(30% of Total)*

8. Consultant Selection and Contract Award

8.1. Proposal Requirements

Proposals shall include the following:

A. Cover Letter

Provide a cover letter signed by an authorized representative of the firm. The letter shall identify the project manager and confirm the firm's ability to perform the work.

B. Firm Qualifications

Describe the firm's qualifications and experience preparing California development impact fee nexus studies, transportation impact fee programs, AB 602-compliant studies, VMT-related transportation fee programs, and public agency fee updates.

C. Project Understanding and Approach

Describe the consultant's understanding of the project, key issues, recommended methodology, and approach to preparing a legally defensible and administratively practical fee program.

D. Scope of Work

Provide a detailed scope of work, organized by task. The proposal may use American Canyon's requested scope or recommend modifications.

E. Project Team

Identify the project manager, key personnel, subconsultants, and their roles. Include resumes for key team members.

F. Relevant Experience

Provide at least three comparable projects completed for California cities, counties, or special districts. For each project, include:

- Client name.
- Project description.
- Date completed.
- Consultant role.
- Fee types studied.
- Whether the study addressed AB 602, transportation fees, VMT, or residential square-footage fee calculations.

- Client reference, including name, title, phone number, and email.

G. Schedule

Provide a proposed schedule showing major tasks, meetings, deliverables, review periods, and adoption milestones.

F. Cost Proposal

Provide a not-to-exceed cost proposal by task. The cost proposal shall identify labor hours, hourly rates, subconsultant costs, reimbursable expenses, and optional task costs.

American Canyon may require the cost proposal to be submitted separately from the technical proposal.

G. Assumptions and Exclusions

Identify all assumptions, exclusions, City responsibilities, data needs, and optional services.

H. Conflicts of Interest

Identify any potential conflicts of interest, including work performed for developers, property owners, or other parties with pending or foreseeable development interests in American Canyon.

8.2. Proposal Evaluation Process

The Proposal review and evaluation process will comply with the following processes ("Proposal Evaluation Process"):

A. The Proposal Evaluation Process is designed to establish a list of qualified Proposers with the best combination of attributes based upon the Evaluation Criteria.

B. The City's Proposal Evaluation Process is intended to identify the Proposer with the best combination of attributes. Cost is not the exclusive attribute and the lowest Proposer is not guaranteed to be offered a Contract.

C. The Project Contact, identified in the "Contact Information" of this RFP, shall manage the Proposal Evaluation Process and maintain all records related to the process.

D. The Project Contact shall conduct an initial review of all Proposals and determine if each Proposal is in compliance with the requirement specified in this RFP and, thereby, responsive.

E. The Project Contact shall work with selected City staff whose specialties and responsibilities are relevant to this RFP (collectively, "Evaluation Team") to complete the evaluation process.

F. The Evaluation Team shall evaluate all responsive Proposals. Each Evaluation Team member shall score each responsive Proposal based on the Evaluation Criteria.

G. The City reserves the right, at its sole discretion, to request clarification of any Proposal. Any such communication shall only be after initial evaluation by the Evaluation Team

and only for the purpose of ensuring full understanding of the Proposal. Any clarification shall be made by the Proposer in writing.

H. Proposers with the highest scores pursuant to the Evaluation Criteria may be asked to complete an interview. The City reserves the right, at its sole discretion, to request an interview. If requested, interviews shall be conducted as provided in this RFP.

8.3. Proposer Interviews

The top-rated Proposers with the highest score from the Evaluation Criteria may be interviewed and rated. The City reserves the right, at its sole discretion, to request interviews. If interviews are held, they will occur at a time and location to be specified or virtually via a City internet platform.

A. Interviews will be conducted by the Evaluation Team and in a format determined by the Team, generally consisting of Team questions and Proposer presentations. The interviews will be limited to one (1) hour. The Evaluation Team shall use the Evaluation Criteria to rate Proposers during the interview.

B. Interviews shall be attended by the individual identified in the Proposal as the primary contact to the City on a day-to-day basis and members of the proposed team identified in the "Personnel" section of the Mandatory Qualifications and Experience.

C. Following all interviews, the Evaluation Team will re-rank the Proposers to determine the highest ranked Proposers.

8.4. Contract Award Process

The contract selection and award process shall comply with the following process ("Contract Award Process"):

A. The Project Contact shall invite the Proposer with the highest score from the Proposal Evaluation Process to participate in contract negotiations with the City.

B. Proposer and City shall negotiate the final terms and conditions of the Contract, pursuant to this RFP. The Contact shall contain the same, or substantially the same, terms and conditions as portrayed in this RFP, the Scope of Work, the Proposal, and the City's Standard Contract.

C. Following negotiations, the City shall draft a contract for execution by all parties. If the Proposer fails to sign and return the Contact within seven (7) working days of its delivery to the Proposer, the City may determine, at its sole discretion, that the Proposer is nonresponsive to the terms of this RFP and initiate further Proposal Evaluation Processes.

D. City records related to this RFP shall be made available for public inspection, as permitted by law, following Contract execution, or rejection of all Proposals.

E. The City reserves the right to accept or reject any or all Proposals.

9. Standard Contract Information

9.1. Standard Contract

The Contract executed pursuant to this RFP shall contain the same, or substantially the same, terms as provided in the City of American Canyon Standard Professional Services Contract (provided in Attachments). Capitalized, highlighted or bracketed items shall be replaced with appropriate information in the final contract.

This RFP, including the Scope of Work, and the successful Proposal emanating from the RFP process shall be incorporated into the Contract.

9.2. Insurance Requirements

The apparent successful Proposer will be required to provide proof of insurance as set forth in the Standard Contract (exhibit C) and Insurance Requirements, both found in Attachments, prior to commencing work. Exceptions to City insurance requirements will not be made. Any Proposer unable to meet the insurance requirements, as detailed, shall not be eligible for selection or award of a Contract.

9.3. Contract Approval

This RFP, Proposal Evaluation Process and Contract Award Process do not obligate the City to act in any certain way and do not create rights, interests, or claims of entitlement to any Proposer or any other entity. Any perceived or actual obligation of the City related to this RFP shall not commence until after the Contract is fully executed in compliance with City ordinances and regulations to establish a legally binding contract.

9.4. Contract Payment

Contract payments shall only be made in accordance with the terms and conditions of the Contract and only after the Contract is fully executed in compliance with City ordinances and regulations. No payment shall be made until the Contract is executed. The City shall not be liable for any payment related to this RFP or the Scope of Work prior to the execution of the Contact, even if the services or work is done in good faith or reliant on oral promises.

9.5. Contract Monitoring

The Consultant shall be responsible for the completion of all services required to complete the Scope of Work. All services, work, and tasks pursuant to the Scope of Work are subject to inspection, evaluation, and acceptance by the City. The City may employ all reasonable means to ensure that the Scope of Work is progressing and being performed in compliance with the Contract, including, but not limited to, inspection of Consultant's office, records, files, and other materials and places related to the Scope of Work. If the City wishes to conduct such an inspection, the Consultant shall provide reasonable access and assistance.

9.6. Contract Amendment

During the course of the Contract, the City may request the Consultant to perform additional services for which the Consultant would be compensated. Those services shall be within the general scope of this RFP. In such instances, the City shall provide the Consultant a written description of the additional work, and the Consultant shall submit a time schedule and cost proposal for completing the additional services, based on either the rates included in the Consultants Proposal to this RFP or else a fixed fee that is mutually agreed to by City and Consultant, whichever is lowest. If the City and Consultant reach an agreement regarding the

services and associated compensation, said agreement shall become effective by means of an amendment to the Contract.

10. Proposer Questionnaire

10.1. Proposal Requirements*

Please confirm that you have read and met all of the Proposal Requirements.

☐ Yes
☐ No

*Response required

10.2. Please enter Legal Company Name and any related DBA*

Please enter the full legal company name and any other business names related to this proposal registered with the Secretary of State to conduct business in the State of California.

*Response required

10.3. Type of Business*

Please confirm your form of business.

☐ Individual
☐ Sole Proprietor
☐ Corporation
☐ Non-Profit Corporation
☐ Partnership
☐ Joint Venture
☐ Limited Liability Company
*Response required

10.4. California Contractors State License Board

Please provide your Contractors License #, if applicable.

10.5. Proposal Documents without Cost Proposal*

Please upload all of the following Proposal Documents here and in the following order, WITHOUT any Cost Proposal documents.

A. Proposal Transmittal Letter

B. Proposer's Mandatory Qualifications and Experience

C. Technical Project Approach

*Response required

10.6. Cost Proposal Documents*

Please upload ONLY your Cost Proposal documents here. The Cost Proposal must be uploaded separately from the rest of the proposal.

*Response required

10.7. Standard City Contract Qualifications

If the Proposer seeks any contract modifications, they must upload a redlined version of the contract provided in the Attachments, clearly identifying the specific language at issue and the proposed revisions in a Word document.

If no modifications are submitted, this question may be skipped and no upload is required. In the absence of any submission, the Proposer will be deemed to have accepted the Contract terms in full and to be capable of performing the Scope of Work, along with all related managerial responsibilities, without reservation.

10.8. Insurance Requirements*

The Proposer acknowledges the City's insurance requirements and endorsements as outlined in the Insurance Requirements (exhibit C) in Attachments. Any Proposal unable to meet the Insurance requirements shall be considered nonresponsive and ineligible for Contract award.

Proposer shall be required to provide proof of requisite insurance prior to Contract execution. Failure to do so shall be just cause for forfeiture of the Proposal guaranty and/or rejection of the Proposal.

☐ Please confirm

*Response required

10.9. Certification Regarding Debarment

The City performs a SAM.GOV verification check to confirm debarment status. Please download the attached document, complete the form, and upload.

A unique entity identifier is requested for contracts greater than $25,000 or funded with Federal dollars. Your entity may register for a unique entity identifier on SAM.GOV at the following link https://sam.gov/content/entity-registration.

For all other proposers, the completed form is sufficient.

- Certification_Regarding_Deb...

10.10. Other Documentation

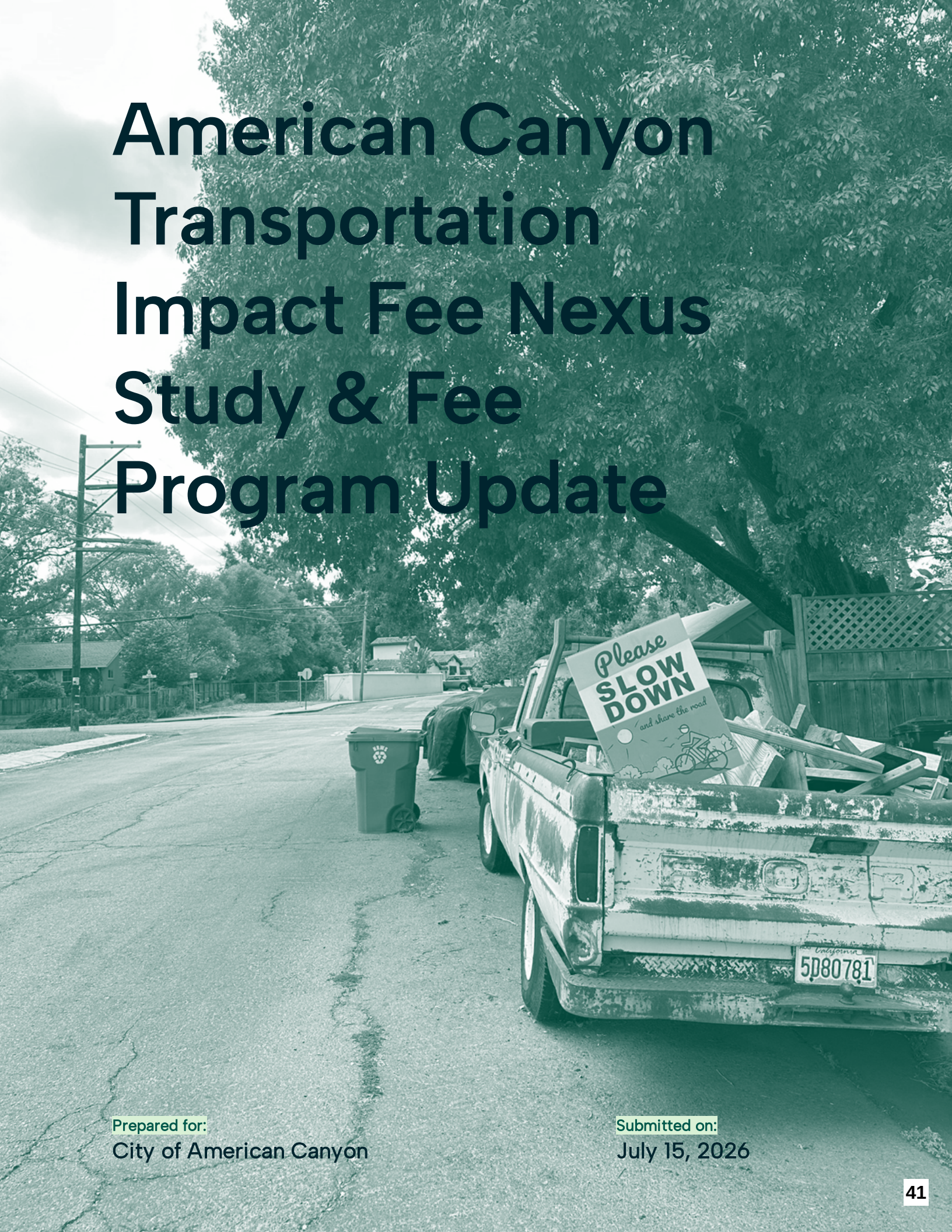
Please upload additional documentation required by this RFP here as well as any additional documentation that you feel would be a value to your submitted proposal. For example: Awards, Licenses, etc.

10.11. Authorized Contract Signer*

Please provide the name, title and email address of the authorized contract signer.

*Response required

American Canyon Transportation Impact Fee Nexus Study & Fee Program Update



Prepared for:
City of American Canyon

Submitted on:
July 15, 2026

July 15, 2026

Transmittal Letter

Noni Thomas, Management Analyst
City of American Canyon, Public Works Department
4381 Broadway Street
American Canyon, CA 94503

Subject: Proposal to Provide Transportation Impact Fee Nexus Study & Fee Program Update Services to the City of American Canyon

Dear Noni Thomas & members of the selection panel:

With the recent adoption of a new General Plan, the City of American Canyon has charted a course for community growth in the years ahead. To keep pace with the City's growth, an updated Transportation Impact Fee (TIF) Program is the opportunity to turn the General Plan's vision into funded transportation improvements. Matching the new TIF Program to the new General Plan and recent legislation, the City will have a clear and defensible basis for funding the transportation infrastructure improvements that support new growth. The City needs a team that understands compliance with the *Mitigation Fee Act* and recent legislation, including *AB 602*, *AB 3177*, and *AB 2553*, and the implications of the recent *Sheetz v. El Dorado County* and *Building Industry Association (BIA) v. City of Patterson* decisions.

Fehr & Peers knows the City of American Canyon and the broader Napa Valley. We recently updated the City's Traffic Calming Program, completed the citywide speed survey, and continue to support the City on an on-call basis. We pair that local knowledge with statewide leadership in transportation impact fees and recent fee program work in nearby communities including the Solano Transportation Authority's Regional TIF Nexus update, Sonoma County's Development Impact Fee Nexus Study, Fairfield's TIF update, and San Rafael's Nexus Study update. Across California, Fehr & Peers has developed and updated more than 50 transportation impact fee programs, all built to reflect current law, including the shift to vehicle miles traveled (VMT) analysis under SB 743, and to tie fees directly to the General Plan, Circulation Element, and Capital Improvement Program.

Our proposed approach builds on the City's adopted plans and existing fee program. We will prepare the nexus study, updated project list, and fee schedule in accordance with the Mitigation Fee Act and current legislation, and structure the program so it is transparent, proportionate, and straightforward for City staff to administer and defend. Our methodology emphasizes clarity, reproducibility, and practical implementation, giving the City tools and documentation it can apply with confidence long after adoption.

Fehr & Peers brings a highly skilled, Bay Area-based team with extensive experience in nexus studies, VMT analysis, and multimodal planning, as well as direct experience working with the City of American Canyon. I will serve as Principal-in-Charge, drawing on years of leading nexus studies for clients throughout the Bay Area combined with leadership in SB 743 implementation and VMT analysis. **Bruno Lertora** will serve as Project Manager and your day-to-day contact, applying recent experience managing the Solano County RTIF Nexus Update, Lamorinda TIF Nexus Update, and San Ramon TIF Nexus Study.

Mackenzie Watten will serve as Technical Advisor; he leads our travel behavior forecasting group and brings the travel demand modeling expertise that underpins the VMT and trip generation analysis at the heart of a defensible nexus study. **Ashlee Takushi** will round out our team, bringing firsthand knowledge of American Canyon and the Napa Valley through recent projects and adding valuable local insight.

Please direct any questions to:

Bruno Lertora | Project Manager
Fehr & Peers
100 Pringle Avenue, Suite 600
Walnut Creek, CA 94596
B.Lertora@fehrandpeers.com | (925) 357-3373

Fehr & Peers is not currently providing services for any private development project within the City of American Canyon. We provide transportation planning and engineering services to public and private clients throughout California and given the breadth of that work we cannot anticipate whether a client we serve might hold an interest in the City. We are not aware of any relationship that would impair our ability to serve American Canyon objectively, and we will promptly disclose and address any actual or potential conflict of interest that arises during this engagement.

I, Julie Morgan, am authorized to bind Fehr & Peers to this proposal and any resulting contract. Our team is committed to collaborating with City of American Canyon staff to refine the scope and deliverables, ensuring they align with your priorities, schedule, and budget. Our firm understands the sample contract, conflicts of interest provisions, timeline, and insurance as outlined in the RFP. Fehr & Peers has reviewed the City's professional services agreement and insurance requirements and submits its exceptions as a separate redlined document. This proposal, including the cost proposal provided separately, remains valid for 90 days following the July 15, 2026, due date. This work will be performed entirely by Fehr & Peers staff, with no subconsultants. We appreciate the opportunity to continue our partnership with the American Canyon community and look forward to supporting the successful update of this important program.

Sincerely,

Fehr & Peers



Julie K. Morgan AICP
Principal-in-Charge &
Director of Operations

2025 Client Feedback

Client survey results show we consistently met or exceeded expectations:

- **99% in quality**
- **98% in value**
- **99% in service**
- **100% say they would use us again**

As Director of Operations, Julie is responsible for overseeing operations across the firm, evaluating operational performance, tracking progress towards operational goals, and overseeing our annual financial forecasts and action plans.

She will also serve as Principal-in-Charge for this contract.

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Qualifications & Experience

Organization

About our firm.

We are a transportation planning and engineering firm with *24 offices* and over *400 staff nationwide*. Since 1985, we have partnered with public and private clients to design safer, more effective ways for people and goods to move — creating spaces where everyone can thrive, today and for generations to come. Bringing together data, technology, and the experiences of the communities we serve, we help clients make confident, well-informed decisions. Along the way, we have earned national recognition for raising the bar on how transportation projects are planned, designed, and delivered. Many of our first clients still trust us with their transportation needs after decades of collaboration — a testament to the strong partnerships we build and the innovative mindset we bring to every project. We do not just follow trends; we help clients anticipate what is next. With a blend of multimodal expertise, national perspective, and local insight fueled by our strong and longstanding relationships, we tailor solutions across a wide range of services to meet each community's unique needs.



Our specialties include transportation impact fee and nexus studies, VMT analysis under SB 743, travel demand forecasting, and multimodal planning and design, and our staff hold professional credentials including Professional Engineer (PE), Traffic Engineer (TE), Professional Traffic Operations Engineer (PTOE), Certified Planner (AICP and or PTP), and Registered Safety Professional (RSP). Our Walnut Creek office will be the primary office serving the City of American Canyon, supported by staff who have worked directly with the City and across the North Bay. Many of our earliest clients still trust us decades later, a testament to the partnerships we build and the forward-looking approach we bring to every project.

Proposed project team.

With four Bay Area offices and over 100 technical staff, we have the resources to dedicate ourselves to creating quality deliverables for American Canyon. As Principal-in-Charge, **Julie Morgan** will apply her decades-long expertise as a professional planner leading local and regional fee and nexus programs including the *Solano County* and *Sonoma County fee updates* and will guide delivery of the City's goals. **Bruno Lertora** leads our team as Project Manager and your day-to-day contact, bringing recent, directly relevant technical experience and understanding through the *Solano Transportation Authority RTIF*, *Lamorinda TIF Nexus Update*, *San Ramon TIF Nexus Study*, and the *City of Pleasant Hill Impact Fee Nexus Study*. Experienced staff, **Mackenzie Watten** and **Ashlee Takushi**, round out our proposed team, with Ashlee having worked on various efforts with the City of American Canyon and broader Napa Valley, and Mackenzie bringing travel demand modeling expertise supporting VMT and trip generation analysis for Solano County, San Ramon, Oakland, and Brisbane. Complete resumes are available in Appendix A.

Experience

Fehr & Peers has served agencies throughout the Bay Area for more than 40 years from our offices in Walnut Creek, San Francisco, Oakland, and San Jose. There are now more than 100 technical professionals working across all our Bay Area office locations.

Fehr & Peers has a long history of conducting Nexus studies for development impact fees, a core part of our transportation planning practice since our firm began. We bring together deep knowledge of an agency's local needs and context, combined with rigorous expertise in the legal and analytical requirements of Nexus studies, to produce fee programs that are solid, defensible, practical, and implementable. We also have extensive North Bay experience and an established presence serving agencies throughout Napa County and the City of American Canyon. Our familiarity with local roadway networks, development patterns, regional travel behavior, and community priorities allows us to provide practical, context-sensitive transportation solutions. Combined with the resources of our broader Bay Area team, we offer clients both local insight and specialized expertise across transportation planning, engineering, multimodal mobility, safety, and development services. Through our North Bay staff and nearby Bay Area offices, we can provide responsive support to local agencies on transportation impact analysis, corridor planning, multimodal improvements, development review, and implementation strategies that help communities maintain mobility while advancing long-term planning objectives. As you will see from the sampling of similar project work presented below, many of our fee program clients choose to work with us over many years and multiple cycles of nexus updates, establishing longstanding relationships and trusting us to build and maintain one of the crucial elements of their infrastructure funding process.

Building upon our extensive experience with impact fee nexus studies and our unparalleled expertise in VMT analysis and SB 743 implementation, Fehr & Peers has also recently led several studies of VMT Mitigation Programs, including the *Contra Costa VMT Mitigation Program* feasibility study for CCTA, the *LADOT SB 743 Mitigation Pilot Program*, the *Sonoma County VMT Mitigation Program* for the Sonoma County Transportation and Climate Authority, and the *San Mateo Countywide VMT Mitigation Program* for the City/County Association of Governments in San Mateo.

Completed Project Experience

Solano County Regional Transportation Impact Fee & Update

Fehr & Peers played a key role on the consulting team charged with developing the first regional transportation impact fee program in Solano County. A successful regional fee program requires cooperation among many local stakeholders, and developing such a program requires thorough technical analysis, compliance with legal mandates, and sensitivity to important local political and economic issues. Fehr & Peers and the rest of the team developed a comprehensive approach to engaging the key stakeholders in a collaborative and informed decision-making process. Fehr & Peers staff led all the technical analysis required to establish the necessary nexus relationships between capital improvements to be funded and the amount of the fee. This effort required extensive use of the Napa-Solano regional travel demand model, combined with the local knowledge and transportation planning expertise of several Fehr & Peers staff. As part of a separate contract, Julie and Bruno have continued to work with the Solano Transportation Authority for many years on fee program updates and revenue projections that were incorporated into a project prioritization process.

Client Name: Solano Transportation Authority
Location: Solano County, CA
Timeline: 2021 – 2025

Value: $155,000
Consultant Role: Prime
Fee Types Studied: Countywide regional transportation impact fee
AB 602/VMT/Residential SF Calculations: Nexus established using the Solano-Napa Activity-Based Model for countywide growth projections
Reference: Jasper Alve, Senior Project Manager JAlve@sta.ca.gov | (707) 399-3204

Pleasant Hill Transportation Impact Fee & CIP Update

Fehr & Peers prepared and updated the City of Pleasant Hill's Traffic Impact Fee program to reflect current capital priorities and growth expectations. After delivering the initial nexus study in 2023, we revised the project list and costs to incorporate the City's 2024-2029 Capital Improvement Program (CIP) and the newly adopted Bicycle and Pedestrian Master Plan, aligned land use assumptions with recent planning work, and recalibrated fees using dwelling unit equivalents based on ITE trip generation rates and a clear, project-based nexus consistent with the Mitigation Fee Act. Fehr & Peers also coordinated with the City Attorney on AB 602 compliance and supported the City through the fee adoption process.

Client Name: City of Pleasant Hill
Location: Pleasant Hill, CA
Timeline: 2025
Value: $54,000
Consultant Role: Prime
Fee Types Studied: Citywide traffic impact fee funding City Capital Improvement Program and Bicycle and Pedestrian Master Plan projects
AB 602/VMT/Residential SF Calculations: Addressed AB 602 through coordination with the City Attorney; fees calculated using dwelling unit equivalents based on ITE trip generation rates (no VMT-based component)
Reference: Laetitia Galeazzi, Senior Engineer LGaleazzi@phillca.gov | (925) 671-5252

San Rafael Transportation Fee Report & Nexus Study Update

Fehr & Peers updated the City of San Rafael's Traffic Mitigation Fee (TMF) Nexus Report, building on the 2021 report Fehr & Peers prepared alongside General Plan 2040. The update converted the fee from a per-trip basis to land-use-based rates and brought it into compliance with the state laws most relevant to American Canyon: AB 602 (residential fees by square footage), AB 2553, and AB 3177 (reduced fees for housing near major transit stops). Fehr & Peers added new projects to the fee list, recalculated the maximum fee by land use type using the Marin County travel demand model, and prepared the updated nexus report for the City.

Client Name: City of San Rafael
Location: San Rafael, CA
Timeline: 9/2024 – 2/2025
Value: $75,000
Consultant Role: Prime
Fee Types Studied: Transportation Mitigation Fee, converted from per-trip to land-use-based
AB 602/VMT/Residential SF Calculations: Addressed AB 602 (residential square-footage fees), AB 2553, and AB 3177; land-use-based fee established using the Marin County travel demand model
Reference: Sarah Teplitsky, Associate Engineer sarah.teplitsky@cityofsanrafael.org | (415) 485-3158



Public Agency Experience

Sonoma County Development Impact Fee Nexus Study

Fehr & Peers is updating the Sonoma County Development Impact Fee Nexus Study as transportation subconsultant to Harris & Associates, building on the prior Sonoma County nexus study Fehr & Peers prepared in 2020. The update brings the County's Countywide and Sonoma Valley transportation impact fee programs into compliance with AB 602, translating demand into residential fees by square footage, and reflects the Mitigation Fee Act's reasonable-relationship findings and the recent Sheetz decision. Fehr & Peers leads the transportation analysis, updating growth projections and the project list and using the Sonoma County travel demand model to establish each land use type's fair-share nexus across both fee programs.

Client: County of Sonoma
Location: Sonoma County, CA
Timeline: 8/2025 – 12/2026
Value: $96,000
Fehr & Peers Role: Subconsultant
Key Personnel: Julie Morgan

American Canyon Speed Survey

Fehr & Peers completed a citywide Engineering and Traffic Survey for the City of American Canyon, establishing defensible, enforceable speed limits across the surveyed roadway segments in accordance with the California Vehicle Code and the California MUTCD. The survey documented prevailing speeds and roadway conditions and supported the adjustments needed to give the City a current engineering basis for radar speed enforcement.

Client: City of American Canyon
Location: American Canyon, CA
Timeline: 8/2022 – 8/2023
Value: $53,000
Fehr & Peers Role: Prime
Key Personnel: Ashlee Takushi

American Canyon Traffic Calming Program

Fehr & Peers prepared the City of American Canyon's Traffic Calming Program, delivered as a final report in March 2024. The program gives the City a clear structure and application process for evaluating and prioritizing neighborhood traffic calming requests, along with a toolbox of measures ranging from education and targeted enforcement to speed- and volume-control devices such as speed tables, raised crosswalks, traffic circles, roundabouts, and pedestrian refuge islands. The result is a consistent, data-informed process City staff can use to respond to community concerns about speeding and cut-through traffic.

Client: City of American Canyon
Location: American Canyon, CA
Timeline: 3/2023 – 8/2024
Value: $46,000
Fehr & Peers Role: Prime
Key Personnel: Ashlee Takushi

San Ramon Transportation Impact Fee

Fehr & Peers updated the San Ramon Traffic Impact Fee (SRTIF) to reflect current conditions and General Plan assumptions and to incorporate new capital projects from the Bicycle Master Plan and ITS Master Plan. Using CCTA's regional travel demand model, we recalculated the fee and allocated it across residential and non-residential land use categories, delivering a final nexus report consistent with the Mitigation Fee Act while preserving the program's existing structure for a smooth transition.

Client Name: City of San Ramon
Location: San Ramon, CA
Timeline: 2021 – 2023
Value: $57,000
Fehr & Peers Role: Prime
Key Personnel: Bruno Lertora, Julie Morgan, Mackenzie Watten

Personnel



Julie Morgan AICP
Principal-in-Charge

Julie has 25 years of experience in a wide range of transportation planning efforts, including travel demand forecasting, long-range plan development, and integrated transportation/land use planning. She develops and applies travel demand forecasting tools in all the major travel demand software packages and manages projects ranging from long-range city-wide circulation plans to traffic impact evaluations to applications of innovative analytical methods for quantifying the effects of neighborhood-scale land use changes on personal travel behavior.

Julie has substantial experience with all the major travel models used in the Bay Area and the Central Valley. She has provided travel demand forecasting services in support of numerous planning and engineering projects, including General Plans, infrastructure development studies, and complex environmental impact reviews. Julie has developed substantial expertise in the field of transportation impact fees, having completed nexus studies in support of legally defensible fee programs for dozens of California cities and counties with populations ranging from 25,000 to 400,000, as well as for several regional financing authorities that involve multiple local jurisdictions.



Bruno Lertora
Project Manager

Bruno is a transportation planner with experience in land use planning, traffic operations, and active transportation planning. As a project manager and analyst, he has participated in and managed multiple transportation impact fee nexus studies across the Bay Area for regional authorities and several cities, covering nexus methodology, demand and land-use inputs, planning-level cost updates, external funding credits, and fee schedule recalibration by land use. He is familiar with Mitigation Fee Act requirements and recent case law, and is a clear, bilingual communicator (English/Spanish) who aligns technical analysis with policy direction and stakeholder priorities.

For American Canyon, Bruno brings recent, directly relevant experience managing transportation impact fee nexus updates, including the Solano Transportation Authority regional fee program, which draws on the same Solano-Napa Activity-Based Model that covers American Canyon. He will lead day-to-day coordination with City staff, right-size the technical effort to the City's needs and keep the study on schedule and within budget.



Mackenzie Watten PTP
Technical Advisor

Mackenzie ("Mac") leads Fehr & Peers' Travel Behavior Forecasting Discipline Group, bringing a measured, analytical, and thoughtful approach to understanding how people move from place to place. His recognized expertise has led to his ITE leadership positions on the ITE Post-COVID Travel Behavior Task Force and the Data Committee, where he is investigating travel behavior data availability, quality, procedures, standards, sources, and tools. He has over 15 years of experience contributing his forecasting travel demand forecasting expertise to a wide range of complex transportation projects across the country and around the world. Mac helps clients address tough questions using data, models, and other tools to understand travel behavior and inform planning efforts. He is always thinking about what comes next, helping clients and colleagues alike address and plan for uncertainty.

Mac has worked extensively across the state of California, developing and applying trip and activity-based models at regional and local scales for a wide range of projects, including transit infrastructure planning, smart growth planning, land use modeling, environmental impact assessments, and highway planning. His history of successfully guiding teams through tough projects has resulted in a deep level of trust from clients, who, along with his colleagues, appreciate his candor, thoughtful insight, and affable demeanor.



Ashlee Takushi EIT, RSP1
Project Analyst & Regional Advisor

Ashlee is a transportation planner with experience in multimodal safety planning, complete streets design, and long-range transportation. As an active member of Fehr & Peers' Safety Discipline Group and a board member of the ITE San Francisco Bay Area Section, she brings a collaborative, community-informed perspective to identifying transportation needs and advancing well-supported infrastructure investments.

For American Canyon, Ashlee brings direct, current experience leading the City's Complete Streets Safety Assessment and Engineering & Traffic Survey Update, along with related regional planning efforts including the NVTA Regional & Local Vision Zero Plan, NVTA Countywide Transportation Plan Update, and Jefferson Corridor Transportation Safety and Connectivity Plan. As Project Analyst and Regional Advisor, she will draw on this working knowledge of the City's and County's recent planning efforts to help ground the transportation facility needs and project list in locally supported priorities.

References

DALE DENNIS
Program Manager | East Contra Costa Regional Fee & Financing Authority
255 Glacier Drive, Martinez, CA 94553
Dale.Dennis@pw.cccounty.us | (925) 595-4587
Associated Project(s): East Contra Costa Regional Fee & Finance Authority Comprehensive Fee Update.

MATT KELLY
Director of Planning | Contra Costa Transportation Authority
2999 Oak Rd, Walnut Creek, CA 94596
MKelly@ccta.net | (925) 256-4730
Associated Project(s): CCTA East County Integrated Transit, CCTA Countywide Transportation Plan, SB 743 and VMT Mitigation Framework.

LAETITIA GALEAZZI
Senior Civil Engineer | City of Pleasant Hill
100 Gregory Lane, Pleasant Hill, CA 94523
LGaleazzi@phillca.gov | (925) 671-5252
Associated Project(s): Pleasant Hill Transportation Impact Fee & CIP Update.

JASPER ALVE
Senior Project Manager | Solano Transportation Authority
One Harbor Center, Suite 130, Suisun City, CA 94585
JAlve@sta.ca.gov | (707) 399-3204
Associated Project(s): STA Regional Impact Fee Update.



History

During the past three years, Fehr & Peers has completed one acquisition. In February 2026, Fehr & Peers acquired Safe Streets Research & Consulting, a safety research firm based in Portland, Oregon. Safe Streets' five-person team strengthens our already robust safety practice by adding national expertise in crash data analysis, Safe System policy, data science, and federal research design and evaluation.

Additional details about the acquisition are confidential.

Legal Challenges

Fehr & Peers are not currently involved in any active litigation matters. The firm is not aware of any pending legal proceedings that would impair its ability to perform the services contemplated under this agreement. Fehr & Peers maintains the professional, financial, and staffing resources necessary to fulfill its contractual commitments and provide uninterrupted service to its clients.

Fiscal Viability

Fehr & Peers has not filed for bankruptcy, receivership, or insolvency protection, nor has any such proceeding been filed against the firm within the past ten (10) years. The firm is financially stable and possesses the resources necessary to successfully perform and complete the services required under this agreement.

Established in 1985, Fehr & Peers is a nationally recognized transportation consulting firm with more than 400 professionals in 24 offices across the United States. The firm's balance sheet is exceptionally strong, with a current liquidity factor exceeding 300 percent and a $2,000,000 line of credit. Fehr & Peers has the financial strength, resources, and capability to finance and complete contracted work in a satisfactory manner.

Technical Project Approach

Understanding & Approach

Understanding & methodology

The preparation of an impact fee program involves three integrated components:

The technical and analytical component, which defines the fee metric (e.g., trip or VMT basis), updates future growth estimates to a consistent horizon year based on the latest General Plan and development forecasts, identifies and screens capital improvements, updates planning-level cost estimates, and calculates maximum justified fees with clear, reproducible methods.

The legal and policy component, in which we support the City's compliance with the Mitigation Fee Act (AB 1600) and other recent state legislation such as AB 3177 and AB 602, documenting findings of reasonable relationship and rough proportionality, and addressing recent case law (including } ÃÞÞŦ7¥fj⁰¥ / çħáŦo¥ç³¥9Ú₺ çš¸™ç and . ħÉÚ"Éá©¥Ñ™ħùŦšo¥ÞŦø⁰¥ fj⁰¥ ÉŦo¥ç³¥w¸ ŦĦÞšùçá), as well as clarifying policies for credits, exemptions, and fair-share methodologies.

The administration and implementation component, which gives the City clear procedures for collecting, accounting for, and annually reporting fees consistent with the Mitigation Fee Act, along with implementation guidance and documentation that City staff can apply and defend as development occurs.

American Canyon's traffic and transportation impact fee program has been in place since 1999 and the most recent update was prepared in 2015. Fehr & Peers has supported various jurisdictions of similar sizes to American Canyon on their nexus study and impact fee program. We will leverage our team's knowledge on developing reasonable land use assumptions and understanding the development pipeline with the current General Plan information to ground the nexus analysis in locally accepted growth projections. This familiarity lets us translate General Plan assumptions into fee service units efficiently and focus effort on where methods or data materially affect fee outcomes. We also understand that the City's new General Plan establishes updated multimodal level of service and design standards, and our approach to the existing deficiencies and facility standard analysis will be grounded in these updated standards.

Given that context and the current legal, policy, and market environment, our approach for the 2026 American Canyon Nexus Study and Fee Program Update is to refresh rather than rebuild the technical foundation, while placing added emphasis on legal defensibility and documentation, and on working with City staff to evaluate whether methodology changes would benefit the program. Concretely, in coordination with City of American Canyon staff, we will confirm whether updates are needed to key methodologies—such as the fee metric and dwelling unit equivalent (DUE) framework, whether and how to incorporate VMT in the fee calculation process, and how the fee is structured and applied across development types.

Our detailed scope of work is outlined in the next section, following the RFP's overall task order and naming. We look forward to working closely with City of American Canyon staff in refining this approach so that it aligns with their priorities, schedule, and budget. Checkpoint meetings are embedded at key decision points to keep decisions timely and the effort on schedule.

Approach to work plan

For consistency with the scope of work outlined in the RFP, our approach to the American Canyon Transportation Impact Fee Nexus Study and Fee Program Update is described below. To achieve the City of American Canyon's goals as we understand them, we have made minor adjustments to the RFP's task descriptions, including consolidating fee program administration into its own dedicated task and integrating the existing deficiencies and level of service analysis directly into the transportation facility needs task. This entire approach is flexible and can be adapted based on input from City staff.



Scope of Work

Task 1. Project Initiation, Legal & Policy Framework Review

Fehr & Peers will attend a virtual kickoff meeting with City staff from Public Works, Planning, and the City Attorney's office. The purpose of this meeting will be to confirm the overall objectives of the fee study, refine the scope of work, and identify key policy considerations that may influence the analytical approach. A central topic of discussion will be the structure of the fee program, including:

1. Linkage to policies related to VMT and multimodal infrastructure per the City's General Plan Update and the potential for integrating VMT-based fees within the nexus study;
2. A fee structure that balances flexibility while maintaining a clear and defensible nexus between development impacts and fee-supported improvements;
3. Whether the existing fee structure is functioning effectively; and
4. Options for Nexus Methodology.

This will also include consideration of recent legal developments and statutory requirements that may influence fee design, including ***Sheetz v. County of El Dorado (2024), Building Industry Association (BIA) v. City of Patterson (2026), AB 602, and other pending or enacted legislation or legal decisions*** at the time of project initiation. Regarding the VMT considerations, we will discuss with City staff and attorney the various ways that VMT can be incorporated into a fee program; this can range from using a development project's VMT to calculate that project's fee, all the way to structuring the entire fee program around the goal of VMT reduction. The considerations will be discussed with staff and attorney so they can make an informed decision about the most appropriate way to incorporate VMT concepts into the City of American Canyon's program.

As part of this task, Fehr & Peers will prepare a detailed project schedule, identify data needs, and review existing City documents. The outcome of this stage will be a refined work plan, if applicable, and data request that reflects the decisions made during the kickoff process. We will review the *2015 City of American Canyon Traffic Impact Fee Nexus Study* and local policy documents, including American Canyon's *2040 General Plan, Capital Improvement Program (CIP), Active Transportation Plan, and Complete Streets policies.* We will also review other applicable documents and reports such as the Napa Valley Transportation Authority (NVTA) Highway 29 Multimodal Project, NVTA's Transit Plan, and the Annual and five-year Mitigation Fee Act reports, as needed.

Deliverables: Information request, scope and schedule refinement (as needed), and brief written summary of the policies and how they may be integrated within the updated Nexus Study.

Task 2. Growth Forecast & Land Use Assumptions

The next stage of the analysis will focus on defining the amount and type of growth that will occur within the City over the planning horizon. The *Solano Napa Activity-Based Model (SNABM)* maintains a set of growth projections for use in conducting transportation planning studies, aligned with regional projections prepared by ABAG. Fehr & Peers will refer to the SNABM growth projections contained within the current version of the travel demand model, which reflects the growth forecasts assumed in the *American Canyon General Plan Update*, and will extract the data relevant to the City. We will compile base-year development by land use; reconcile it with available pipeline information, including projects that are already committed to the current fee levels or that are otherwise exempt from the fee; and align assumptions with current RHNA allocations, accessory dwelling unit (second unit) trends, and institutional uses. We will coordinate with City staff to discuss whether there may be a consideration around establishing separate fee zones or geographic benefit districts; for the purposes of this scope, we have assumed that the fee program will remain at the citywide level.

As part of the scope, we will convene a coordination meeting with City of American Canyon staff to review preliminary baseline and growth projections, confirm data sources, and agree on the method for converting land use to transportation demand. Once the future growth potential is defined, we will develop a set of factors to convert those land uses into Dwelling Unit Equivalents (DUEs) and/or VMT-based demand factors. These factors typically account for components such as trip generation rates, average trip lengths, the likelihood for diverted/pass-by trips, and sometimes other elements such as proximity to other compatible uses or transit facilities. We will develop DUE and/or VMT factors for this study based on inputs and outputs from the travel demand model, as well as industry standard reference materials and factors used in other fee programs. These factors will be reviewed with the team and will be used later in the fee calculations. Based on the growth forecast and General Plan buildout assumptions, we will also recommend a planning horizon for the fee program that aligns with the City's General Plan Update and available development capacity.

Deliverables: Summary of growth forecast and land use assumptions and agreed approach for converting land use data to measure facility demand.

Task 3. Transportation Facility Needs & Project List

Fehr & Peers will work with City staff to identify the transportation facilities needed to support growth. We will review the current list and cost assumptions, and we will update the improvements list by drawing from existing planning documents, such as *American Canyon's Capital Improvement Program (CIP), Active Transportation Plan, relevant TIAs and corridor studies,* and the other documents listed in the RFP; it is not anticipated that it would be necessary to define new projects separate from those existing documents. We will also offer guidance on project inclusion so that the improvement list reflects multimodal priorities.

This base scope of work assumes that most of the capital improvements that will be included in the transportation impact fee already have some level of cost estimates prepared. Fehr & Peers will perform high-level updates to those transportation project cost estimates, such as applying an escalation index or adjustments to reflect scope refinements at the direction of City staff; detailed and comprehensive updates to project costs, such as preparation of brand new cost estimates or significant changes to project scopes that require a substantial level of effort to generate new costs, are not assumed as part of the base scope of work and are included as part of Optional Task 7.

Given the evolving legal landscape surrounding development impact fees, including recent rulings such as *Sheetz v. County of El Dorado (2024) and BIA v. City of Patterson (2026),* Fehr & Peers will emphasize risk management and legal considerations in the development of the transportation project list and nexus analysis. These legal decisions underscore the importance of clearly demonstrating the proportional relationship between new development and the need for and cost of transportation improvements. As a result, this scope anticipates carefully defining and explaining the need for the transportation project list, including documentation of project purpose, growth-related need, and benefit to new development, as well as documenting how the projects support transportation objectives in the adopted City policies.

An important element of this stage will be identifying and accounting for existing deficiencies in the City's infrastructure systems. Fehr & Peers will prepare a map of existing transportation deficiencies based on available traffic data (including existing or prior traffic counts) and prior work completed for the *General Plan Update* and *Active Transportation Plan*. Fehr & Peers will use the City's newly adopted *2040 General Plan multimodal level of service and design standards* as the basis for identifying existing facility standards and defining the proposed facility standards that will apply to future development. This mapping will be used to distinguish between existing deficiencies and growth-related needs and to support documentation of nexus findings. Given that the City has recently completed substantial citywide planning processes, this scope assumes that the collection of additional new traffic data beyond what is already available from those planning documents will not be necessary; such data collection could be added later as an optional task if it is found to be needed.

Deliverables: List and map of transportation projects, including existing deficiencies.



Task 4. Nexus Analysis, Fee Methodology & Cost Allocation

Building on the prior tasks, Fehr & Peers will develop the nexus analysis that establishes the required relationship between new development, the need for transportation capital improvements, and the fees charged to development. This analysis will quantify the extent to which new development contributes to the need for infrastructure improvements and will allocate the costs of those improvements accordingly.

As noted under Task 1, we believe that the work that has already been completed and documented can provide a solid foundation for the nexus analysis. For roadway improvements included in the fee program, Fehr & Peers will tier from this work by using the SNABM travel demand model to conduct a select link analysis to determine the proportion of traffic on each link that is attributable to new development in the city, which will then be used to define the proportion of the project costs to be included in the fee program.

For non-roadway facilities (e.g., improvements to bicycle and pedestrian facilities), Fehr & Peers will coordinate with City staff to evaluate options for defining a defensible nexus. These options may involve defining the nexus consistent with the proportional population growth occurring in the City or establishing a nexus relationship based on City policies and design standards. These topics will be discussed with City staff before a final nexus relationship is defined.

To align the fee program with SB 743 and the City's VMT policies, we will discuss with City staff options for characterizing the VMT effects of the fee program. An option would be to describe how the transportation project list contributes to citywide VMT reduction goals, framing fee payment as one way a development project can support that goal while clearly distinguishing this local infrastructure-funding purpose from separate CEQA VMT mitigation requirements. This qualitative assessment would build on the VMT analysis already completed for the *General Plan Update*.

The City's current fee program calculates fees for each project individually, based on the project's estimated daily trip generation, rather than through a fee schedule assigned by land use category. Following completion of the nexus analysis, Fehr & Peers will discuss with City staff whether to retain this project-specific approach, move toward a fee schedule differentiated by land use category, or adopt some hybrid of the two. Whichever approach is selected, Fehr & Peers will identify the maximum supportable fee using metrics such as trip generation and/or VMT generation and will document AB 602 findings as needed depending on the residential methodology selected. These calculations will represent the maximum fee that could be charged; policymakers may decide to set fees at less than the maximum to support other City policy goals. Fehr & Peers will develop these fees in alignment with applicable policy and legislative requirements.

Deliverables: Table summary of fair share calculations for vehicle facilities and discussion of multi-modal transportation improvements, table summary of fee calculations, draft fee schedule, Excel-based fee calculation model.

Task 5. Fee Program Administration

Based on our understanding, the current fee program has been functioning smoothly from an administrative standpoint, with no significant pain points identified in areas such as fee collection or credits. As part of this task, Fehr & Peers will work with City staff to confirm and, where needed, formalize the administrative provisions that will accompany the updated fee program, including fee calculation and collection, credits and reimbursements, exemptions or reductions, and special treatment for specific project types. We will also confirm the approach for annual inflation adjustments, and annual and five-year reporting procedures. We anticipate carrying forward the current administrative approach with minimal changes where it continues to serve the City well, while identifying and documenting adjustments needed to stay consistent with the updated nexus methodology.

Deliverables: Brief memorandum summarizing fee program administration and implementation recommendations, Excel-based annual reporting and tracking template.



Task 6. Documentation, Outreach & Public Hearings

Fehr & Peers will document the technical analysis and nexus findings from the prior tasks in an Administrative Draft Nexus Report, incorporating one round of consolidated City staff review of the quantitative analysis and fee schedules. Following that review, we will prepare a Draft Nexus Study reflecting City staff's direction, which will serve as the public-facing document for the Planning Commission and public hearing process. We will then prepare a Final Nexus Study reflecting one round of consolidated comments received during that review process, along with a brief response to comments memorandum summarizing how comments were addressed. The final fee schedule will be incorporated into and finalized alongside the Final Nexus Study.

In coordination with the City Attorney, Fehr & Peers will be available to support the City Attorney in the preparation of draft ordinance or resolution exhibits and provide example fee resolutions and ordinances from peer jurisdictions for reference, if helpful.

To support the adoption process, Fehr & Peers will meet with City staff to review the analysis results and walk through allocations, fee schedules, and key policy choices, and will attend up to two virtual meetings with development community stakeholders and other City departments as needed. Fehr & Peers will also prepare and deliver presentation materials for, and attend, a Planning Commission study session and a City Council public hearing for adoption, designed to clearly explain the nexus study, fee calculations, and policy considerations. Should the City wish to hold additional briefings, such as individual council member briefings, we can support those as an optional task.

Deliverables: Administrative Draft Nexus Report, Public Draft Nexus Report, Final Nexus Report, final fee schedule, public hearing presentation materials, response to comments memorandum, electronic copies of all deliverables in Word, Excel, and PDF formats.

Optional Task 7. New Project Cost Estimates

As an optional task, Fehr & Peers can provide planning-level cost estimates for some of the projects in the fee program using industry-standard cost assumptions, comparable project data, and/or appropriate unit cost factors. This task could be undertaken if cost information is unavailable, incomplete, or requires substantial changes. If City of American Canyon staff decide that a more detailed and comprehensive refresh of the cost estimates is warranted, we can engage a local civil/structural engineering partner to develop cost estimates grounded in recent unit costs, bid histories, and regional pricing.

Proposed Schedule

Our detailed schedule for the proposed scope of work can be found in Appendix B.



Appendix A. Staff Resumes



Julie Morgan, AICP

Principal & Director of Operations | Principal-in-Charge

About

Julie has 25 years of experience in a wide range of transportation planning efforts, including travel demand forecasting, long-range plan development, and integrated transportation/land use planning. She develops and applies travel demand forecasting tools in all the major travel demand software packages and manages projects ranging from long-range city-wide circulation plans to traffic impact evaluations to applications of innovative analytical methods for quantifying the effects of neighborhood-scale land use changes on personal travel behavior.

Julie has substantial experience with all the major travel models used in the Bay Area and the Central Valley. She has provided travel demand forecasting services in support of numerous planning and engineering projects, including General Plans, infrastructure development studies, and complex environmental impact reviews. Julie has developed substantial expertise in the field of transportation impact fees, having completed nexus studies in support of legally defensible fee programs for dozens of California cities and counties with populations ranging from 25,000 to 400,000, as well as for several regional financing authorities that involve multiple local jurisdictions.

Education

M.S., Transportation Engineering, University of California at Berkeley, 1996

M.C.P., City & Regional Planning (transportation planning emphasis), University of California at Berkeley, 1996

Registrations

American Institute of Certified Planners (015698)

Affiliations

Institute of Transportation Engineers (ITE): Associate

American Planning Association (APA): Member

Women's Transportation Seminar (WTS): Member

Presentations

Advanced CEQA Training on VMT Implementation, California Association of Environmental Professionals, 2019

Evaluating the Effectiveness of TDM Strategies for SB743 Application, Bay Area Regional Modeling Working Group, 2019

Estimating a Disrupted Future: Measuring Emerging Trends in Transportation, 3 Revolutions Conference, Davis, 2018

Transportation Impact Fees in a Multimodal Age, Growth & Infrastructure Consortium National Conference, Portland, 2015

Relevant Project Experience

Solano County TIF Nexus Study (Solano County, CA)

Fehr & Peers was a key member of the consulting team charged with developing the first regional transportation impact fee program in Solano County. A successful regional fee program requires cooperation among many local stakeholders, and developing such a program requires thorough technical analysis, compliance with legal mandates, and sensitivity to important local political and economic issues. Fehr & Peers and the rest of the consultant team developed a comprehensive approach to engaging the key stakeholders in a collaborative and informed decision-making process. Fehr & Peers staff were responsible for all the technical analysis required to establish the necessary nexus relationships between the capital improvements to be funded and the amount of the fee. This effort required extensive use of the Solano-Napa regional travel demand model, combined with the local knowledge and transportation planning expertise of several Fehr & Peers staff.

East Contra Costa Regional Impact Fee (Contra Costa County, CA)

The East Contra Costa Regional Fee & Finance Authority is a regional joint powers agency, involving four incorporated cities and the County, that establishes transportation impact fees and uses the revenue to construct major regional infrastructure projects in eastern Contra Costa County. The Authority has been very successful in delivering projects, having collected more than $200 million over the life of the fee program and used those funds to construct major highway and arterial infrastructure projects that have benefited all the East County communities.

Fehr & Peers has worked with the Authority since 2000. We have conducted three major updates to the fee program and have collaborated extensively with staff from all the member jurisdictions on issues related to fee application and administrative processes. We are currently working with the Authority and member jurisdiction staff to develop a prioritization structure to set guidelines for using the fee revenues to deliver the next set of priority projects within each of the jurisdictions.

West Contra Costa Transportation Impact Fee (Contra Costa County, CA)

Fehr & Peers served as the prime consultants for the West Contra Costa Transportation Advisory Committee (WCCTAC) in preparing a comprehensive nexus study to update the West County impact fee program. The fee program is a key mechanism to ensure that future development pays its fair share toward necessary transportation improvements. The West County fee had not been substantially updated since 2005, and the fee levels had not kept pace with inflation. Julie led a comprehensive nexus study, involving extensive engagement with the six local agencies, determination of the fair-share nexus relationships, and discussion of policy and implementation options through many presentations to the WCCTAC Board and the Technical Advisory Committee. Key questions were about financial feasibility, the effects on housing affordability, and the methods for ensuring equitable distribution of fee revenues amongst the member jurisdictions. The final fee was successfully adopted by all the West County jurisdictions.

City of Brisbane TIF Nexus Study (Brisbane, CA)

Fehr & Peers conducted a Transportation Impact Fee (TIF) Nexus Study for the City of Brisbane to calculate fees that the City could collect to fund capital improvements necessary to support new development within the City. The project team coordinated with the city to outline key assumptions, including a methodology based on three separate districts/zones that represent key areas of development within the city. Fehr & Peers used a "select link" analysis to identify the proportional contribution to the necessary improvements by land use and calculate a maximum fee rate for each land use type and district.

Additional Impact Fee Experience

- Oakland Impact Fee Nexus Study (Oakland, CA)
- East Dublin Transportation Impact Fee (Dublin, CA)
- Pleasanton Impact Fee (Pleasanton, CA)
- Pittsburg Fee & Range Road Analysis (Pittsburg, CA)
- Antioch Transportation Impact Fee (Antioch, CA)
- Contra Costa County AOB Services (Brentwood, CA)
- Leona Quarry Traffic Impact Fee (Oakland, CA)
- Lodi IMFP Update (Lodi, CA)
- Ukiah Valley Impact Fee Program (Ukiah, CA)
- El Cerrito Traffic Impact Fee (El Cerrito, CA)
- Napa Circulation Element Update & TIF (Napa County, CA)
- Stanislaus County RTIF (Stanislaus County, CA)
- Corte Madera Impact Fee Study (Corte Madera, CA)
- Fairfield TDM Development & Fee Study (Fairfield, CA)
- Moraga Impact Fee Program Advisory Services (Moraga, CA)
- Santa Cruz County TIF Study (Santa Cruz, CA)



Bruno Lertora

Senior Transportation Planner | Project Manager

About

Bruno is a transportation planner with experience in land use planning, traffic operations, and active transportation planning. As a project manager and analyst, he has participated in and managed multiple transportation impact fee nexus studies across the Bay Area for regional authorities and several cities, covering nexus methodology, demand and land-use inputs, planning-level cost updates, external funding credits, and fee schedule recalibration by land use. He is familiar with Mitigation Fee Act requirements and recent case law, and is a clear, bilingual communicator (English/Spanish) who aligns technical analysis with policy direction and stakeholder priorities.

Bruno brings current, on-the-ground familiarity with Lafayette, Moraga, and Orinda from Fehr & Peers' recent work on each city's Housing Element (including RHNA allocations, land-use assumptions, development pipelines, and VMT analysis). He will leverage these accepted datasets to anchor growth inputs to a consistent 2050 horizon, ensuring internal consistency across the three jurisdictions and a transparent bridge between land-use planning and the fee program. Bruno will lead coordination with LFFA and city staff, right sizing the technical effort, and keeping the study on schedule and within budget.

Education

B.S., Transportation & Industrial Engineering, Pontifical Catholic University of Chile, 2019

Study Abroad Program, University of California at Berkeley

Software

Python

Synchro

ArcGIS

Relevant Project Experience

STA RTIF Nexus Study Update (Solano County, CA)

Fehr & Peers has assisted the Solano Transportation Authority with the countywide Regional Transportation Impact Fee program for more than ten years. We conducted the nexus analysis that served as the foundation for establishing the initial program, and we have helped STA with several program updates to accommodate changes in regional growth patterns and transportation investment priorities. In this most recent program update, which Bruno is managing, we are conducting a Nexus analysis to support the addition of four new transportation projects to the program.

San Ramon Traffic Impact Fee (San Ramon, CA)

Fehr & Peers helped to update the transportation impact fee program for the City of San Ramon which will achieve the city's objectives of a strong and effective program to fund important transportation infrastructure throughout the city. The focus of our work is to define a program that is legally defensible, effective in generating funds for critical transportation projects, economically feasible within the context of local development constraints, and easy to administer. Fehr & Peers' work efforts include helping to develop a comprehensive list of multimodal transportation improvement projects needed to serve the demands of new development, establishing the magnitude of existing deficiencies in Pleasanton's transportation system, calculating the fair share contributions from new growth, and helping the team to document the findings and conclusions in a legally defensible manner.

Lamorinda TIF Nexus Study Update (Lafayette, CA)

Fehr & Peers is supporting the Lamorinda Development Mitigation Fee Nexus Study Update for the Lamorinda Fee & Finance Authority (LFFA) and the Cities of Lafayette, Moraga, and Orinda. Building on the region's existing fee program, we are helping the agency evaluate policy, legal, and technical considerations to ensure continued compliance with the Mitigation Fee Act (AB 1600) and recent legislation, including AB 602, AB 3177, and the Sheetz v. County of El Dorado decision. Our team is developing a consistent baseline and growth forecast through 2050 to understand future transportation demand and inform the update of transportation improvements needed to serve anticipated growth. We are also reassessing the nexus methodology, including the use of vehicle miles traveled (VMT) and project trips as potential impact measures, and refining the capital improvement and funding framework to support a legally defensible fee program. The study will ultimately establish updated maximum justified fees, refine jurisdictional allocation formulas, and provide the technical foundation for adoption of updated nexus reports by the participating agencies. Bruno serves as Project Manager for this effort.

East Dublin TIF Update for Housing Element (Dublin, CA)

Fehr & Peers is working with the City of Dublin on their East Dublin TIF Update, for which Bruno is serving as the Project Manager. The project team is reviewing model land use inputs and comparing them to the Housing Element data, using that information to update existing processes and documentation as needed.

Lafayette Housing Element Update EIR & VMT Analysis (Lafayette, CA)

Fehr & Peers assisted the City of Lafayette in preparing the housing element and safety evacuation analysis component of the General Plan Update. Bruno led efforts for this project as the Project Manager.

City of Pleasanton Housing Element Update & Transportation Impact Analysis (Pleasanton, CA)

Bruno was the Lead Analyst responsible for the transportation impact analysis prepared for the update to the City of Pleasanton's Housing Element Update. As part of the work, Fehr & Peers evaluated the implications to VMT for implementation of the Housing Element Update. Where significant adverse impacts related to various housing sites were identified, mitigation measures were developed and proposed. In addition to the impact of the HEU on VMT the effects of newly generated traffic on intersection levels of service were also assessed. Intersection LOS was evaluated for 50 intersections under multiple scenarios using the local and regional travel demand models.

City of Antioch Housing Element Update & SB 743 Implementation (Antioch, CA)

Bruno served as Project Manager for the City of Antioch's Housing Element Update and SB 743 Implementation project. Fehr & Peers was the transportation consultant who prepared the technical analysis supporting the City's update to the General Plan's Housing Element. As part of this work, the firm prepared an analysis supporting the development of housing plans and programs that will result in beneficial VMT outcomes. In a separate but linked piece of work, Fehr & Peers prepared the analysis and updates to the City's transportation guidelines for the full implementation of SB 743 and the use of VMT to evaluate projects within the city.



Mackenzie "Mac" Watten, PTP

Associate | Technical Advisor

About

Mac leads Fehr & Peers' Travel Behavior Forecasting Discipline Group, bringing a measured, analytical, and thoughtful approach to understanding how people move from place to place. His recognized expertise has led to his ITE leadership positions on the ITE Post-COVID Travel Behavior Task Force and the Data Committee, where he is investigating travel behavior data availability, quality, procedures, standards, sources, and tools. He has over 15 years of experience contributing his forecasting travel demand forecasting expertise to a wide range of complex transportation projects across the country and around the world. Mac helps clients address tough questions using data, models, and other tools to understand travel behavior and inform planning efforts. He is always thinking about what comes next, helping clients and colleagues alike address and plan for uncertainty.

Mac has worked extensively across the state of California, developing and applying trip and activity-based models at regional and local scales for a wide range of projects, including transit infrastructure planning, smart growth planning, land use modeling, environmental impact assessments, and highway planning. His history of successfully guiding teams through tough projects has resulted in a deep level of trust from clients, who, along with his colleagues, appreciate his candor, thoughtful insight, and affable demeanor.

Education

B.S. Civil Engineering, University of California at Berkeley, 2009

Registrations

Professional Transportation Planner (793)

Affiliations

Institute of Transportation Engineers (ITE): Member

Presentations

Transforming Predictive Models into Decision Frameworks: Evidence from San Francisco Bay Area Rail Transit Models (co-authored), Transportation Research Record, 2020.

Relevant Project Experience

Solano County RTIF Nexus Study Update (Solano County, CA)

Fehr & Peers has assisted the Solano Transportation Authority with the countywide Regional Transportation Impact Fee program for more than ten years. We conducted the nexus analysis that served as the foundation for establishing the initial program, and we have helped STA with several program updates to accommodate changes in regional growth patterns and transportation investment priorities. In this most recent program update, we conducted a Nexus analysis to support the addition of four new transportation projects to the program and applied the recently updated Solano-Napa Activity-Based Model to establish new countywide growth projections. Mac served as the Technical Lead for this effort.

Additional Experience

- San Ramon TIF Nexus Study (San Ramon, CA)
- East Dublin TIF Update for Housing Element (Dublin, CA)
- Benicia Housing Element Update (Benicia, CA)
- Lafayette Housing Element Update EIR (Lafayette, CA)
- Napa County Housing & Safety Element Updates (Napa County, CA)
- Caltrain Business Plan (Bay Area, CA)
- Vision California (Statewide, CA)



Ashlee Takushi, EIT, RSP[1]

Senior Transportation Planner | Project Analyst & Regional Advisor

About

Ashlee is drawn to transportation engineering because of the potential to improve communities by understanding their local goals and needs, while offering innovative ideas that have been successfully implemented in other regions by similar community types. Since joining Fehr & Peers, Ashlee has worked on a variety of projects, gaining experience and interest in transportation impact analyses, pedestrian planning and design, and citywide safety planning.

She has supported agencies in developing practical, community-informed strategies that connect long-range growth with multimodal transportation improvements. As an active member in Fehr & Peers' Safety Discipline Group and a board member of the ITE San Francisco Bay Area Section, Ashlee brings a collaborative perspective to identifying transportation needs and advancing investments that support safer, more connected, and well-planned communities.

Education

B.S., Civil Engineering, California Polytechnic State University at San Luis Obispo, 2017

Registrations

Engineer in Training, State of California (165048)

Road Safety Professional (962)

Leadership & Affiliations

Institute of Transportation Engineers (ITE), SF Bay Area Chapter: Board Member

Relevant Project Experience

American Canyon Complete Streets Safety Assessment (American Canyon, CA)

Fehr & Peers works with the Safe Transportation Research & Education Center (SafeTREC) at UC Berkeley to deliver Complete Streets safety assessments for jurisdictions throughout California every year. The project includes conducting interviews with local staff to provide a safety policy benchmarking assessment, reviewing historic collision data to understand key safety issues, completing field visit safety audits with local staff, and delivering a summary report with project recommendations. Ashlee served as a Project Manager for these assessments.

American Canyon Engineering & Traffic Survey Update (American Canyon, CA)

Fehr & Peers assisted the City of American Canyon with updating their 2017 speed surveys. The purpose of this analysis was to determine the adequacy of existing speed limits for various roadway segments within the city and develop recommendations based on that analysis. In addition, Fehr & Peers conduct Wejo data analysis to assist the city with pre-AB 43 implementation. Work conducted for this effort includes data collection and review of 17 road segments with city limits, analysis of that data, and subsequent documentation in the form of a Final Speed Survey Report. Ashlee served as Project Manager for this effort.

Additional Experience

- NVTA Regional & Local Vision Zero Plan (Napa Valley, CA)
- NVTA Countywide Transportation Plan Update (Napa Valley, CA)
- Jefferson Corridor Transportation Safety and Connectivity Plan (Napa, CA)
- Modesto Comprehensive Safety Action Plan Update (Modesto, CA)

Appendix B. Proposed Schedule

Schedule for the Transportation Impact Fee Nexus Study & Fee Program Update

Project Start Date: 8/10/2026

Tasks	Days	Start	End	Type
Task 1 – Project Initiation and Legal & Policy Framework Review				
Project Kickoff Meeting	5	10-Aug-26	14-Aug-26	Meeting
Revised Scope & Schedule (if needed)	10	10-Aug-26	21-Aug-26	Work Period
Consolidated Information Request	10	10-Aug-26	21-Aug-26	Work Period
Legal and Policy Framwork Review Summary	20	10-Aug-26	4-Sep-26	Deliverable
Task 2 – Growth Forecast and Land Use Assumptions				
Growth Projection Estimates Compilation	20	24-Aug-26	18-Sep-26	Work Period
Assessment of Methods to Link Land Use to Transportation Demand	20	24-Aug-26	18-Sep-26	Work Period
Coordination Meeting to Review Growth Projection Estimates	5	21-Sep-26	25-Sep-26	Meeting
Revision of Land Use Projections (if needed)	10	28-Sep-26	9-Oct-26	Work Period
Growth Projections Summary Table & Agreed Approach for Tranportation Demand	10	28-Sep-26	9-Oct-26	Deliverable
Task 3 – Transportation Facility Needs and Project List				
Evaluation of Project List Structure	15	12-Oct-26	30-Oct-26	Work Period
Coordination Meeting to Define Project List Structure	10	26-Oct-26	6-Nov-26	Meeting
Improvements/Categories List Update	25	26-Oct-26	27-Nov-26	Work Period
Planning-Level Cost Estimates Update	30	30-Nov-26	8-Jan-27	Work Period
Existing Deficiencies Mapping & Facility Standard Analysis	30	30-Nov-26	8-Jan-27	Work Period
List of Proposed Improvements/Categories & Cost Estimates	10	18-Jan-27	29-Jan-27	Deliverable
Task 4 – Nexus Analysis, Fee Methodology, and Cost Allocation				
Confirmation on Fee Calculation Methodology	5	1-Feb-27	5-Feb-27	Meeting
Select Link Analysis	20	8-Feb-27	5-Mar-27	Work Period
Fee Calculations	10	8-Mar-27	19-Mar-27	Work Period
Draft Fee Schedule & Fee Calculation Model	15	22-Mar-27	9-Apr-27	Deliverable
Task 5 – Fee Program Administration				
Coordination Meeting on Administrative Provisions	5	8-Mar-27	12-Mar-27	Meeting
Fee Program Administration Memorandum	11	12-Mar-27	26-Mar-27	Deliverable
Task 6 – Documentation, Outreach, and Public Hearings				
Coordination Meeting to Review Fee Schedule	5	12-Apr-27	16-Apr-27	Meeting
Administrative Draft Report	15	19-Apr-27	7-May-27	Deliverable
Public Draft Report	5	24-May-27	28-May-27	Deliverable
Planning Commission & Stakeholders Meetings	15	31-May-27	18-Jun-27	Meeting
Final Report	5	21-Jun-27	25-Jun-27	Deliverable
Support Public Hearing for Report Adoption	10	28-Jun-27	10-Jul-27	Meeting



Notes:

Task Type	Legend
Meeting	
Work Period	
Client Review	
Deliverable	

American Canyon Transportation Impact Fee Nexus Study & Fee Program Update

Tasks	Billing Rate	Fehr & Peers					Labor Hours	Direct Labor Costs	Direct Costs	Total
		Julie Morgan Principal-in-Charge	Bruno Lertora Project Manager	Mackenzie Watten Technical Advisor	Ashlee Takushi Project Analyst & Regional Advisor	Project Coordinator (TBD)				
		$410	$235	$330	$230	$180				
Task 1 – Project Initiation and Legal & Policy Framework Review		12	24	4	18	7	65	$17,280	$1,210	$18,490
Task 2 – Growth Forecast and Land Use Assumptions		8	12	12	24	7	63	$16,840	$1,180	$18,020
Task 3 – Transportation Facility Needs and Project List		8	24		64	12	108	$25,800	$1,810	$27,610
Task 4 – Nexus Analysis, Fee Methodology, and Cost Allocation		12	32	12	72	16	144	$35,840	$2,510	$38,350
Task 5 – Fee Program Administration		8	16		24	6	54	$13,640	$950	$14,590
Task 6 – Documentation, Outreach, and Public Hearings		24	48	4	48	16	140	$36,360	$2,550	$38,910
Total for Tasks 1-6		72	156	32	250	64	574	$145,760	$10,210	$155,970

Notes:

Actual billing rate at the time of service may vary depending on the final staffing plan at the time the project starts; the overall fee will not be exceeded.

Reimbursable Expenses will cover travel expenses, production of presentation materials, and other direct costs.

Mileage is billed at the IRS rate plus 10% handling fee.

Rates and staff are subject to change at any time, without notice, and within the total budget shown.

TITLE

Approve an Addendum to the Certified General Plan Program Environmental Impact Report (Program EIR) (SCH No. 2022070038) and Conduct Final Reading and Adoption of the Hess/Laird Territory Special Study Pre-Zoning Ordinance

RECOMMENDATION

Waive final reading, read by title only, and adopt an Ordinance to approve Special Study Pre-Zoning for the Hess/Laird Territory consistent with the General Plan (American Canyon Municipal Code Chapter 19.50) and approve an Addendum to the Certified General Plan Program Environmental Impact Report, finding the Ordinance consistent with the General Plan Program EIR.

CONTACT

Brent Cooper, AICP, Community Development Director
Matthew Summers, City Attorney

BACKGROUND & ANALYSIS

The Hess/Laird property consists of approximately 281 acres and is located outside the City limits in unincorporated Napa County, east of State Route 29 and north of Watson Lane. In March 2026, the property owners initiated an application with the Napa County Local Agency Formation Commission (LAFCO) to annex their property into the City of American Canyon (Assessor Parcel Numbers 057-090-065 and 057-090-066). A location map of the Hess/Laird property is included as Attachment 2.

On September 1, 2026, the City Council approved the first reading of an Ordinance approving Pre-Zoning for the Hess/Laird Territory consistent with the General Plan (American Canyon Municipal Code Chapter 19.50) If the final reading is approved, the Ordinance will become effective 30 days later on October 15, 2026. A copy of the Ordinance is included as Attachment 1.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Organizational Effectiveness: "Deliver exemplary government services."

FISCAL IMPACT

Not applicable due to zoning regulations that allow very limited land use potential.

ENVIRONMENTAL REVIEW

The Affected Territory Special Study General Plan designation was evaluated in the General Plan Program Environmental Impact Report (Program EIR) (SCH# 2022070038). The implementing Special Study Pre-Zoning, and contemplated LAFCO actions are consistent with the General Plan, is a contemplated "Project Approval" under the Program EIR. Therefore, approval of the Pre-Zoning based on the Certified General Plan Final EIR, which includes the Statement of Overriding Considerations and the Mitigation Monitoring and Reporting Program, complies with CEQA. The City Council certified the General Plan Final EIR by adoption of Resolution No. 2025-37 on May 20, 2025. A copy of the addendum is included as Exhibit C to Attachment 1.

COMMUNICATION

Level 0: No Further Public Communication Needed

ATTACHMENTS:

1._Ordinance_HLAT_PreZoning
2. Hess Laird Location Map

ORDINANCE NO. 2026-XX

AN ORDINANCE ADOPTING SPECIAL STUDY PREZONING FOR THE HESS/LAIRD TERRITORY CONSISTENT WITH THE GENERAL PLAN (AMERICAN CANYON MUNICIPAL CODE CHAPTER 19.50)

WHEREAS, pursuant to Section 65300 of the State Planning and Zoning Law, the City of American Canyon (City) has adopted a General Plan (the 2040 General Plan Update) to provide comprehensive long-range planning and a blueprint of the City's future form, including land use and circulation maps that specify the roadway network and the distribution of types and intensities of land; and

WHEREAS, on May 20, 2025, the City Council of the City of American Canyon adopted Resolution No. 2025-38 adopting the 2040 General Plan Update, including the "Future Study Area" designation of approximately 282 acres located northeast of the City of American Canyon in unincorporated Napa County, California. The property is known as the Hess/Laird Territory (hereafter the "Affected Territory") and identified by Assessor's Parcel Numbers (APNs) 057-090-065 and 057-090-066; and

WHEREAS, in March 2026, Hess-Laird property owners initiated proceedings with the Local Area Formation Commission of Napa County ("LAFCO") to annex the Hess-Laird Affected Territory into the City of American Canyon and the American Canyon Fire Protection District, with concurrent and coterminous amendment of the City of American Canyon's Sphere of Influence ("SOI"), which requires an application to the Local Agency Formation Commission of Napa County ("Napa LAFCo") for approval of the proposed reorganization (collectively, "Reorganization Activities"); and

WHEREAS, pursuant to Section 56375(a)(7) of the Government Code the City must pre-zone the Affected Territory as a condition to LAFCO's approval of the proposed annexation; and

WHEREAS, the City is lead agency and LAFCO is the responsible agency for the Reorganization Activities on the Affected Territory under California Environmental Quality Act ("CEQA"), Public Resources Code section 2000 et seq.; and

WHEREAS, notwithstanding any annexation, under Government Code section 65860, the City is obligated to bring zoning into conformance with the Update General Plan; and

WHEREAS, the City seeks to pre-zone the Affected Territory as a "special study zone" ("SSZ") within the Special Study Zone District as described in American Canyon Municipal Code Chapter 19.50, consistent with the 2040 General Plan Update and Government Code Section 65859; and

WHEREAS, the purpose of the SSZ district is to: (a) allow properties to be zoned or Pre-Zoned until the City has completed appropriate planning studies to determine the types and intensities of land uses through an amendment of the City's general plan; and (b) allow agricultural, grazing, open space and public uses within the district as interim uses; and

WHEREAS, the proposed Reorganization Activities will maintain the status quo of land use designations, zoning, infrastructure, and municipal services, including the 2040 General Plan Update's "Future Study Area" designation and consistent SSZ pre-zoning. The SSZ pre-zoning is more restrictive than the County's current industrial zoning, reducing rather than increasing land use intensity; and do not propose any development or other physical change to the Hess-Laird Property or propose any particular action affecting the environment; and

WHEREAS, on May 20, 2025, as the Lead Agency under the City Council of the City of American Canyon adopted Resolution No. 2025-37 certifying that the 2040 General Plan Update Final Program Environmental Impact Report ("General Plan EIR") (State Clearinghouse No. 2022070038) had been prepared in full compliance with CEQA and includes the Affected Territory at a program level of analysis, required mitigation measures, and a Mitigation Monitoring and Reporting Program (MMRP); and

WHEREAS, for purposes of CEQA analysis the proposed Reorganization Activities and Pre-zoning are a project (Project); and

WHEREAS, the proposed Project has been reviewed for consistency with the applicable General Plan, zoning, and other applicable land use regulations; and

WHEREAS, Public Resources Code section 21083.3 and CEQA Guidelines section 15183 provide that projects which are consistent with the development density established by an existing General Plan, community plan, or zoning for which an EIR has been certified require no additional environmental review except as necessary to examine project-specific effects that are peculiar to the project or its site; and

WHEREAS, in connection with the proposed Project, an Addendum to the 2040 General Plan Update Final Program Environmental Impact Report ("Addendum"), a copy of which is on file in the Community Development Department and attached as Exhibit C, has been prepared pursuant to Public Resources Code section 21166 and sections 15163-15164.7 of the State CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3) to determine whether any new or substantially more severe significant environmental impacts would result from the proposed reorganization; and

WHEREAS, the City has reviewed and considered the Addendum together with the General Plan EIR and the entire administrative record; and

WHEREAS, the proposed Affected Territory Pre-Zoning is a contemplated "Project Approval" under the General Plan EIR and the City is lead agency for reorganization actions pursuant to CEQA Guidelines section 15367; and

WHEREAS, the Affected Territory is located in Napa Airport Land Use Compatibility Plan District Zones D1 and D2; and

WHEREAS, allowable uses in the Special Study Pre-Zoning district, such as agricultural, grazing, open space and public uses are deemed "normally compatible" within the Napa Airport Land Use Compatibility Plan District Zones D1 and D2 (Exhibit 5-2); and

WHEREAS, on July 30, 2026, the Planning Commission of the City of American Canyon conducted a public hearing and unanimously recommended City Council approval of the ordinance; and

WHEREAS, a duly noticed public hearing was held by the City Council of the City of American Canyon on September 1, 2026, at which time all interested persons were given an opportunity to be heard regarding the proposed Municipal Code amendments.

NOW, THEREFORE, BE IT ORDAINED that the City Council of the City of American Canyon hereby adopts the Affected Territory Pre-Zoning to Special Study Zone as described in American Canyon Municipal Code Chapter 19.50 based on the findings and depicted on Exhibit A and Exhibit B and attached hereto.

SECTION 1. FINDINGS. The City Council finds based on the following evidence and as required by State Law on General Plan Amendments:

a. The proposed amendment is deemed to be in the public interest.

Pre-Zoning Special Study will achieve the project objectives listed in the Resolution recitals which include facilitating an orderly and public discussion, supported by technical analysis that will determine beneficial land uses in this area consistent with objectives in the American Canyon General Plan. Furthermore, permitting interim use of agriculture and open space uses demonstrates that the annexation is part of a longer-term, staged plan that avoids rushing the Affected Territories into development by maintaining agricultural resources until no longer needed.

b. The amendment is consistent with the purposes of this title, as set forth in Chapter 19.01, Authority, Purposes and Effects of the Zoning Ordinance.

The Pre-Zoning is consistent with the purpose of the Zoning Ordinance to protect and promote the public health, safety, peace, comfort, convenience, aesthetics, prosperity, and general welfare because the proposed Pre-Zoning regulations will maintain a low intensity of use prior to an orderly and transparent decision making process on optimal long-term land use or land uses in the Affected Territory.

SECTION 2. CEQA FINDINGS: The Affected Territory Special Study General Plan designation was evaluated in the General Plan Program Environmental Impact Report (General Plan EIR) (SCH# 2022070038). Implementing Special Study Pre-Zoning and Reorganization Activities is a contemplated later "Project Approval" under the General Plan EIR.

Section 2.1 The Project is consistent with the land use designation, development density, applicable General Plan policies, and zoning applicable to the Project site.

Section 2.2 The City previously certified the General Plan EIR, which analyzed the environmental impacts associated with development contemplated by the General Plan, including development of the type and intensity proposed by the Project.

Section 2.3 The City finds that the Project will not result in significant environmental effects that are peculiar to the Project which were not analyzed in the certified General Plan EIR.

Section 2.4 The Project will not result in significant off-site or cumulative impacts that were not adequately analyzed in the certified General Plan EIR.

Section 2.5 There is no substantial new information that was not known at the time the General Plan EIR was certified demonstrating that the Project would result in previously identified significant impacts that would be substantially more severe than disclosed in the prior EIR.

Section 2.6 All applicable mitigation measures adopted in connection with certification of the General Plan EIR that are relevant to the Project have been incorporated into the Project or otherwise will be implemented through existing City ordinances, development standards, permit conditions, or other uniformly applied policies.

Section 2.7 To the extent applicable, uniformly applied development policies, regulations, and standards adopted by the City substantially mitigate environmental effects associated with the Project.

Section 2.8 Accordingly, pursuant to Public Resources Code section 21083.3 and CEQA Guidelines section 15183, no additional Environmental Impact Report, Mitigated Negative Declaration, or Negative Declaration is required because the Project is consistent with the development density established by the applicable General Plan and the certified General Plan EIR adequately addresses the environmental effects of the Project, subject only to implementation of applicable mitigation measures and uniformly applied development standards.

Section 2.9 The Addendum to the General Plan EIR was prepared for Project in compliance with the requirements of CEQA and the CEQA Guidelines.

Section 2.10 Based on the evidence submitted and as demonstrated by the analysis in the Addendum, and in light of the record as a whole, none of the conditions described in Public Resources Code section 21166 or CEQA Guidelines sections 15162 or 15163 calling for preparation of a subsequent or supplemental EIR or negative declaration have occurred. Specifically:

(1) No substantial changes are proposed by the Project that will require major revisions of the General EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) No substantial changes have occurred with respect to the circumstances under which these actions are undertaken that will require major revisions of the General Plan EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) No new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the General Plan EIR was certified as complete and the 2040 General Plan Update was adopted, shows any of the following:

(A) The Project will have one or more significant effects not discussed in the General Plan EIR;

(B) Significant effects previously examined will be substantially more severe than shown in the General Plan EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the pre-zoning or Reorganization Activities, but the proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives that are considerably different from those analyzed in the General Plan EIR would substantially reduce one or more significant effects on the environment, but the proponents decline to adopt the mitigation measure or alternative.

Section 2.11 The City has considered the Addendum in connection with the previously approved General Plan EIR and hereby finds on the basis of the whole record before it that based on substantial evidence the Project will have no significant effect on the environment. The Project not authorize development beyond the land uses, densities, intensities, and development assumptions analyzed in the General Plan EIR. The City further finds that the Addendum fully discloses and analyzes the environmental effects of the Project and reflects the City's independent judgment and analysis.

Section 2.12 Pursuant to the above findings, the City Council of the City of American Canyon determines that the 2040 General Plan Update Final General Plan EIR and MMRP, together with the Addendum (Exhibit C), satisfy all requirements of CEQA and are adequate to serve as the required environmental documentation for the proposed Pre-zoning the Affected Territory and Reorganization Activities and, therefore, hereby approves and adopts the Addendum to the 2040 General Plan Update Final General Plan EIR.

Section 2.13 The City Council hereby directs the Community Development Director or designee, to file a Notice of Determination in accordance with the requirements of the CEQA Guidelines and the Public Resources Code in accordance with Public Resources Code section 21152 and CEQA Guidelines sections 15075 and 15094, as applicable.

SECTION 3. NAPA AIRPORT LAND USE COMPATIBILITY PLAN. The Pre-Zoning that accommodates agricultural, grazing, open space and public uses are considered "normally compatible" within Zones D1 and D2 of the Napa Airport Land Use Compatibility Plan (NALUCP) (Exhibit 5-2). Furthermore, the Pre-Zoning does not involve the types of airport impact concerns listed in Policy 2.3.1(a) which include:

(1) Noise: Locations exposed to potentially disruptive levels of aircraft noise.

The proposed uses are deemed "normally compatible" within Zones D1 and D2.

(2) Safety: Areas where the risk of an aircraft accident poses heightened safety concerns for people and property on the ground.

Zones D1 and D2 present minimal aircraft accident hazards coupled with extremely low population densities permitted within the proposed Pre-Zoning.

(3) Airspace Protection: Places where height and various other land use characteristics need to be restricted in order to prevent creation of physical, visual, or electronic hazards to flight within the airspace required for operation of aircraft to and from the *Airport*.

The Affected Territory subject to the Pre-Zoning is approximately 1 mile at its closest point to the Napa Airport runway. The proposed agricultural, grazing, open space and public uses represent historical uses on the property and do not present a height characteristic that would impair physical, visual, or electronic hazards to flight within the airspace required for operation of aircraft to and from the Airport.

(4) Overflight: Locations where aircraft overflying can be intrusive and annoying to many people.

The proposed uses are very low in population density and deemed "normally compatible" within Zones D1 and D2.

For reasons explained above, it can be concluded with certainty that the Affected Territory Pre-Zoning would not affect Napa County airport operations and therefore referral to the Napa County Airport Land Use Commission is not required.

Furthermore, the applicant received a voluntary project referral finding of consistency with the NALUCP consistent with NALUCP Section 2.6.1(c), by the ALUC Executive Director. A copy of the consistency determination is included as Exhibit D to this Ordinance.

SECTION 4. EFFECTIVE DATE. This ordinance shall become effective effect 30 days after its final passage pursuant to Government Code section 36937.

SECTION 5. SEVERABILITY. If any section, sentence, clause or phrase of this Ordinance is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance. The City Council hereby declares that it would have passed this Ordinance and adopted this Ordinance and each section, sentence, clause or phrase thereof, irrespective of the fact that one or more sections, subsections, sentences, clauses or phrases be declared invalid or unconstitutional.

SECTION 6. CUSTODIAN OF RECORDS. The documents and materials that constitute the record of proceedings on which this Ordinance is based are located at the City Clerk's office located at 4831 Broadway, Suite 201, American Canyon, CA 94503. The custodian of these records is the City Clerk.

The foregoing Ordinance was introduced at a regular meeting of the City Council of the City of American Canyon, State of California, held on the 1st day of September, 2026 by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

The foregoing Ordinance was adopted at a regular meeting of the City Council of the City of American Canyon, State of California, held on the _____ day of _____, _____, by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

_____
Pierre Washington, Mayor

ATTEST:

APPROVED AS TO FORM:

_____
Taresa Geilfuss, CMC, City Clerk

_____
Matthew Summers, City Attorney

EXHIBITS

A. Pre-Zoning Map
B. Pre-Zoning District Regulations
C. General Plan EIR Addendum
D. Napa County Airport Land Use Consistency Determination

EXHIBIT A

Hess/Laird Territory Annexation Project Pre-Zoning Map

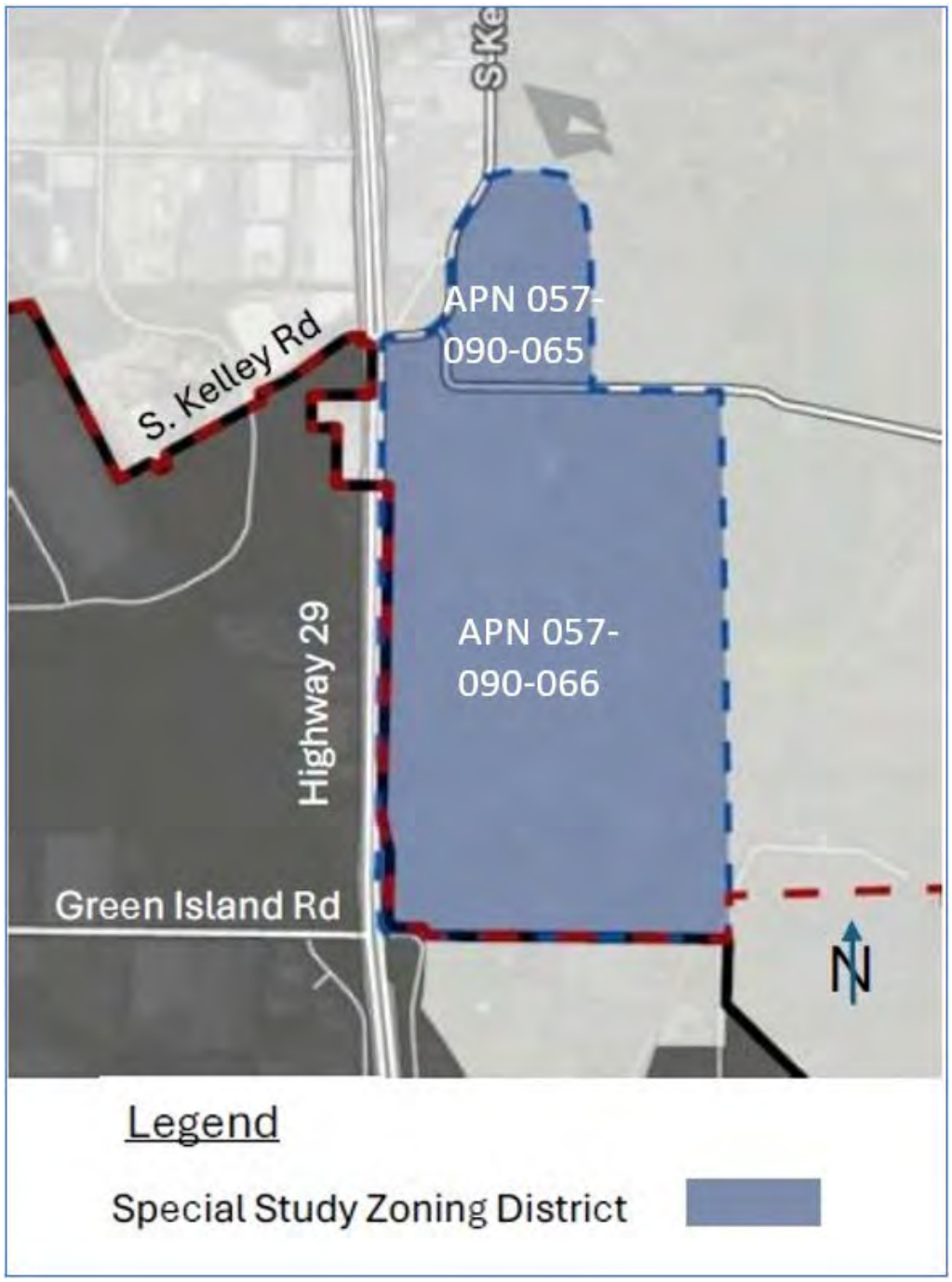


EXHIBIT B
PRE-ZONING DISTRICT REGULATIONS

Chapter 19.50 SPECIAL STUDY ZONE DISTRICT

19.50.010 Purpose.

The purpose of the special study zone district is to:

(A) Allow properties to be zoned or prezoned until the city has completed appropriate planning studies to determine the types and intensities of land uses through an amendment of the city's general plan.

(B) Allow agricultural, grazing, open space and public uses within the district as interim uses. (Res. 2008-105 § 4, 2008)

19.50.020 Applicability.

Properties designated as "special study zone" by the general plan shall be within the special study zone district. (Res. 2008-105 § 4, 2008)

19.50.030 Permitted uses.

Permitted uses shall be: agriculture, grazing, open space and public uses, except as provided in Section 19.12.040. (Res. 2008-105 § 4, 2008)

19.50.040 Conditionally permitted uses.

Any structure greater than ten thousand square feet shall be a conditionally permitted use. (Res. 2008-105 § 4, 2008)

EXHIBIT C

City of American Canyon

Pre-Zoning and Proposed Reorganization Project

Addendum to 2040 General Plan Program EIR
State Clearinghouse Number 2022070038

July 2026

451252.1

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1 Introduction and Project Summary

1.1 Overview

This document is an Addendum to the previously certified City of American Canyon 2040 General Plan Program Environmental Impact Report ("General Plan EIR") (State Clearinghouse [SCH] Number 2022070038), prepared in compliance with the California Environmental Quality Act (CEQA) and the state CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3). The 2040 General Plan Update includes the "Future Study Area" designation of approximately 282 acres located northeast of the City of American Canyon ("City") in unincorporated Napa County, California. The property is known as the Hess-Laird Territory (the "Affected Territory"). The City seeks to pre-zone the Affected Territory as a "special study zone" (SSZ) within the Special Study Zone District as described in American Canyon Municipal Code (ACMC) Chapter 19.50, consistent with the 2040 General Plan Update and the City's obligation to make zoning consistent with its General Plan under Government Code section 65860 (the "Project").

Additionally, the Affected Territory owners submitted an application in March 2026 to the Local Area Formation Commission of Napa County ("LAFCO") to seek annexation of the Affected Territory into the City and the American Canyon Fire Protection District, and concurrent amendment of the City's and Fire Protection District's Spheres of Influence (SOI) (collectively, "Reorganization Activities"), which also requires an application to the LAFCO. Section 56375(a)(7) of the Government Code requires that the City must pre-zone the Affected Territory as a condition of annexation. LAFCO, not the City, is the approving authority for the Reorganization Activities.

Where more than one agency may take a discretionary action with respect to a project under CEQA (a "Project"), the law generally requires that one agency serve as the CEQA "lead agency" and the other agencies serve as "responsible agencies." Section 15051(b) of the CEQA Guidelines, which establish criteria for the identification of the lead agency, provides that the lead agency will normally be the agency with general governmental powers rather than an agency with a single or limited purpose. That section further provides that, when a city pre-zones an area, the city will be the appropriate lead agency for any subsequent annexation of the area, and that the LAFCO shall act as a responsible agency. The responsibilities of a responsible agency are set forth in Section 15096 of the CEQA Guidelines.

Because no person challenged the General Plan EIR following its May 20, 2025 certification and within the applicable statute of limitation, the EIR is *conclusively* presumed to comply with the provisions of CEQA for the purpose of its use by responsible agencies unless a supplemental or subsequent EIR (either, an "SEIR") and is required under Section 21166 of CEQA due to changes in the project, changes in circumstances, or certain types of new information. The purpose of this Addendum is therefore to assess whether any of the triggers requiring preparation of an SEIR have occurred. An addendum is appropriate where a previously certified EIR has been prepared and some changes or revisions to the project are proposed but none of the changes or revisions would result in significant new or substantially more severe environmental impacts, consistent with CEQA Section 21166 and State CEQA Guidelines Sections 15162, 15164, 15166, 15168, and 15183.

As the lead agency under the CEQA, the City has determined, based on substantial evidence, that the proposed pre-zoning warrants the preparation of an addendum in accordance with Section 15164 of the CEQA Guidelines. The Project will neither result in new significant impacts nor

substantially increase the severity of previously disclosed impacts beyond those already identified in the certified 2040 General Plan EIR. Moreover, the Project has not changed to any extent requiring preparation of an SEIR. Accordingly, the certified 2040 General Plan EIR, together with this Addendum, provides the environmental documentation required for the Project and will be relied upon by both the City and LAFCO.

1.2 Lead Agency Name and Address

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

1.3 Contact Person and Phone Number

Brent Cooper, AICP
Community Development Director for the City of American Canyon
4381 Broadway, Suite # 201
American Canyon, CA 94503
(707) 647-4335
bcooper@americancanyon.gov

1.4 Project Location

The City is located in Napa County at the southern entrance of the Napa Valley, approximately 35 miles northeast of San Francisco, and serves as a northern Bay Area gateway north of Vallejo and south of downtown Napa. The City is bordered by the Napa River to the west, Sulphur Springs Mountain foothills to the east, Vallejo to the south, and vineyards near the Napa County Airport to the north. Figure 1 shows a regional map of the City's relationship to nearby cities, communities, and the regional transportation system, and Figure 1 also shows the City's limits and the location of the Project.

The Affected Territory is located outside of and adjacent to the City's limits, as shown as the "Future Study Area" in Figure 2. The Project Area includes the Affected Territory, Future Study Area which consists of approximately 282 acres located northeast of the City in unincorporated Napa County, California. The property is also identified by Assessor's Parcel Numbers (APNs) 057-090-065 and 057-090-089.

Figure 1 Regional Location.

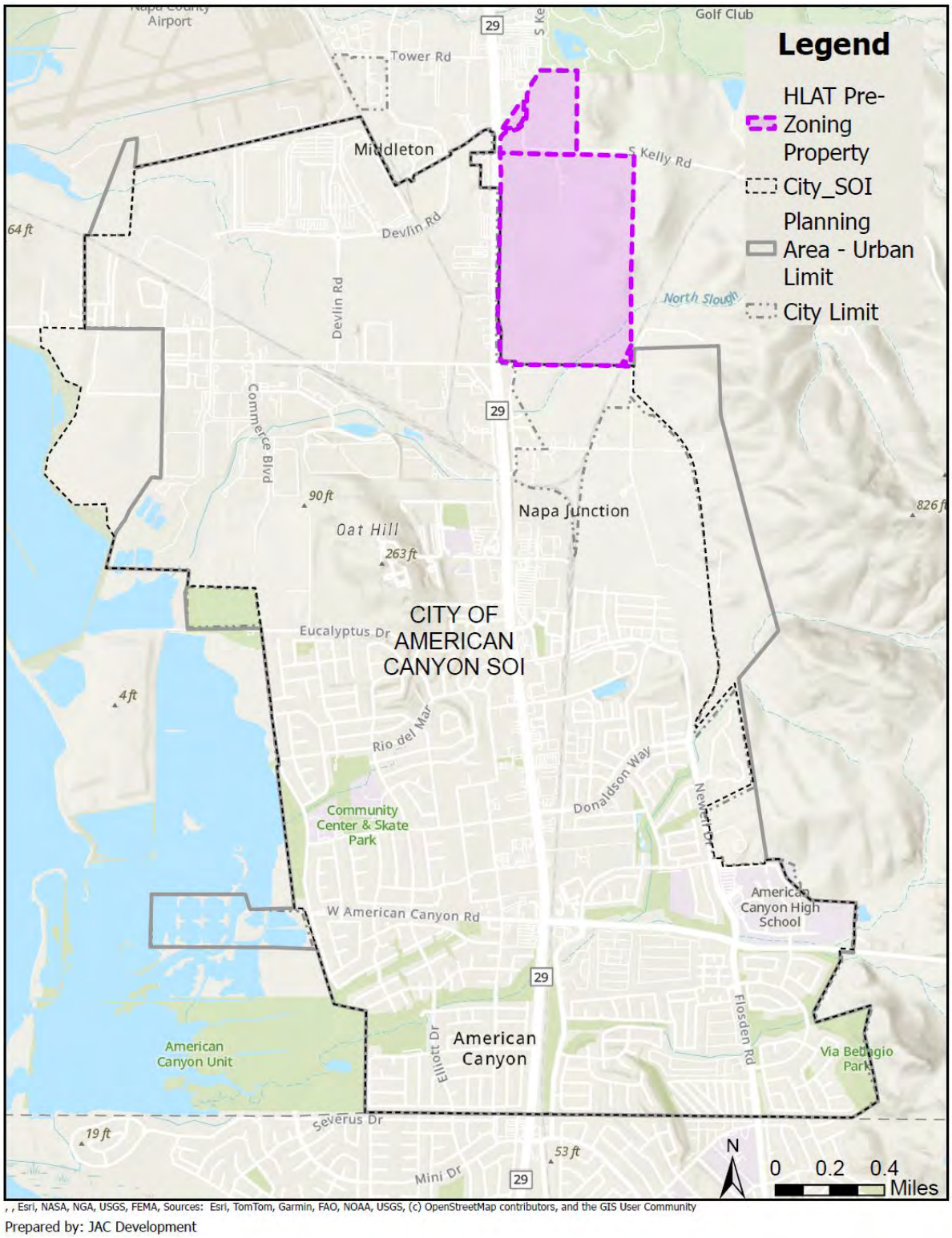
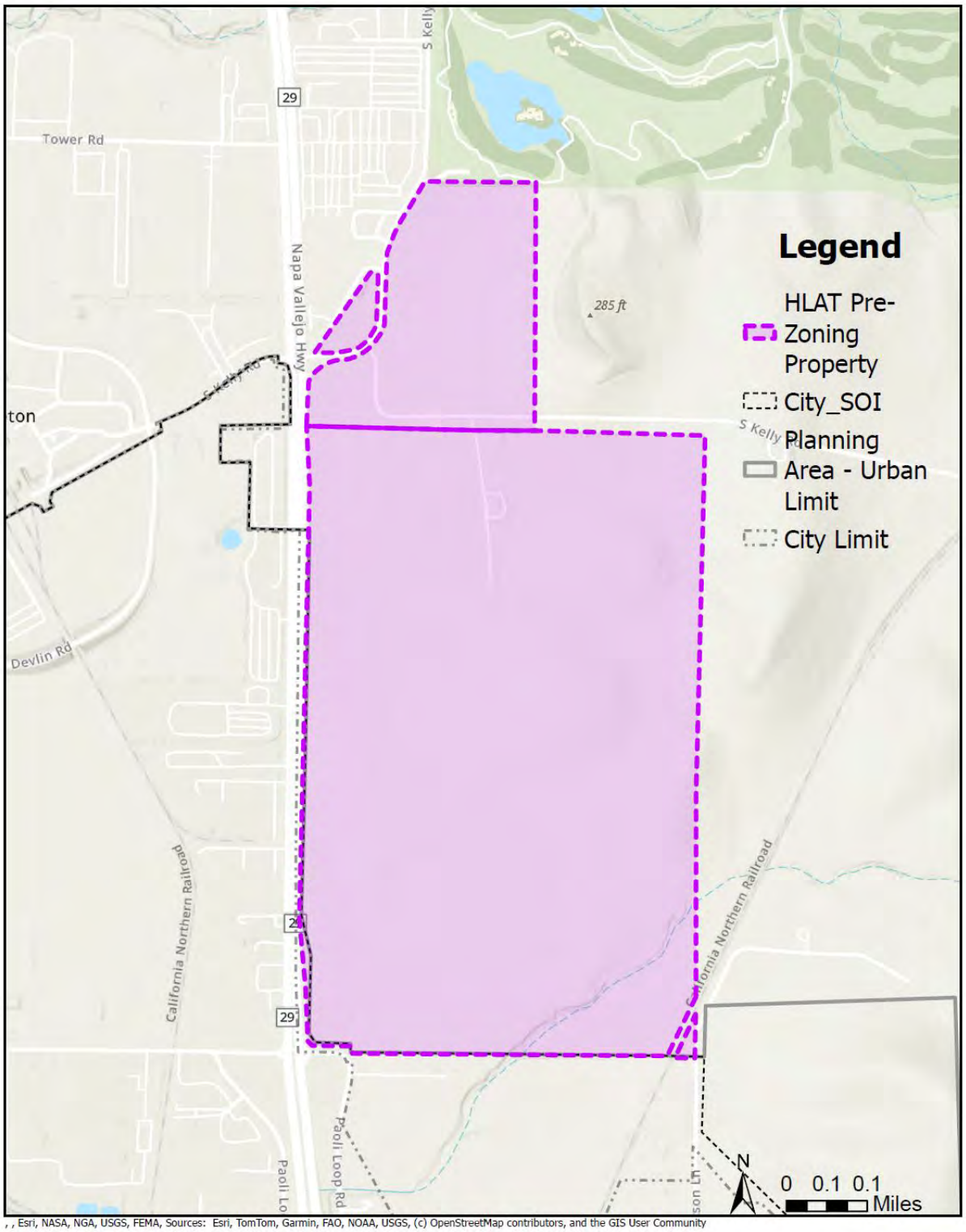


Figure 2 Project Area



Prepared by: JAC Development

1.5 Project Description

The City proposes to pre-zone the Affected Territory to the Special Study Zone District (SSZ) pursuant to Government Code Section 65859 (the "Project").

The Special Study Zone District is established by ACMC Chapter 19.50 for the following purposes:

- Allow properties to be zoned or pre-zoned until the City has completed appropriate planning studies to determine the types and intensities of land uses through an amendment of the City's General Plan.
- Allow agricultural, grazing, open space, and public uses within the district as interim uses.

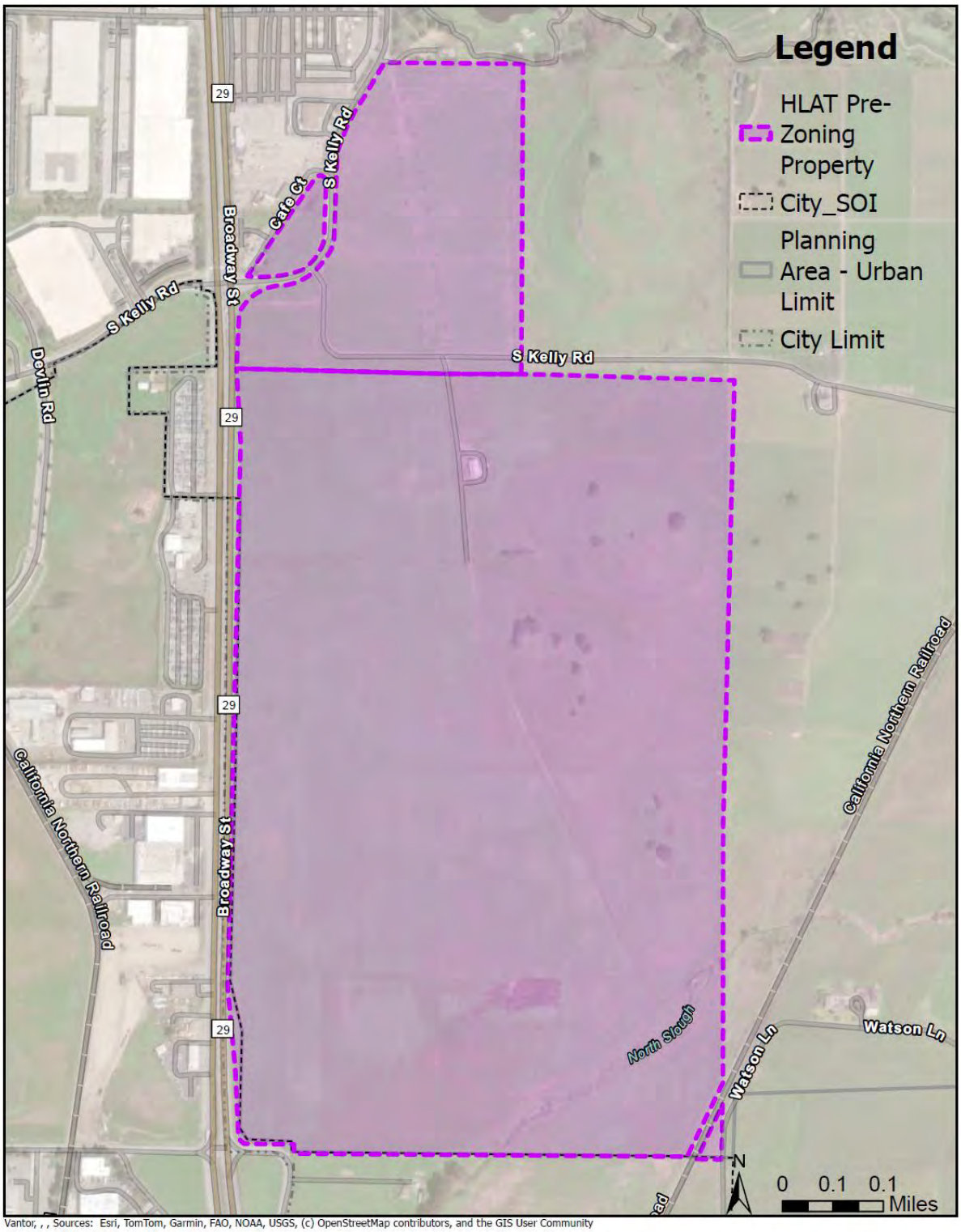
The Affected Territory has not been pre-zoned by the City on any prior occasion and therefore currently carries no municipal zoning district designation. On November 12, 2024, the Napa County Board of Supervisors unanimously approved a General Plan Amendment (P21-00055) and Rezone (P24-0221), that redesignated and rezoned the Affected Territory as "Industry." Under Napa County Code of Ordinances Chapter 18.08.330, "Industry" means, "the processing of materials or fabricating of articles, including research, manufacturing and refining, and the packaging, treatment, assembly and storage of goods, materials, liquids and equipment in connection therewith. It includes sales of items produced on the premise." The County's general plan designation and zoning are not legally relevant to the Project, because upon Reorganization the City's general plan and pre-zoning will govern the use of the Affected Territory. It should nonetheless be noted that the Affected Territory was formerly a vineyard; however, operations have ceased and the property is currently in a fallow, open space condition with no structures or active land uses.

The City's proposed SSZ pre-zoning is substantially more restrictive than the County's current "Industry" zoning designation. The SSZ District does not authorize any of the industrial, commercial, or warehouse uses that would be permissible under the County's Industry zoning. Rather, the SSZ serves as a study zone that limits uses to agriculture, grazing, open space, and public uses pending completion of future City planning studies. Upon the potential Reorganization Activities approval by LAFCO, the effect of the SSZ District would replace the County's Industry designation with a more restrictive, less environmentally impactful, interim classification that preserves the Affected Territory's current fallow/open space condition. As such, the Project would not allow for any intensification of existing or planned land uses beyond what already would be allowed under existing conditions. Additionally, following Reorganization Activities, the Project would not authorize or permit any new urban development within the Affected Territory, as all future development within the Affected Territory would be subject to rezoning and applications for discretionary permits that would separately require their own review and analysis in compliance with CEQA. Although the SSZ District allows certain by-right agricultural and rural residential uses, the property owners have advised the City that they do not have any intention of developing such uses on the Affected Territory.

In conjunction with their Reorganization Activities application, the Affected Territory landowners have requested the LAFCO to amend the SOI for the City and the American Canyon Fire Protection District and concurrently annex into the City's and American Canyon Fire Protection District's boundaries, which requires LAFCO approval of the Reorganization Activities into the respective agency boundaries. Under state law, LAFCO is responsible for coordinating and overseeing logical and timely changes to local government agency boundaries. As a responsible agency under CEQA, LAFCO also must consider this addendum in conjunction with the City's 2040 General Plan Program

EIR in evaluating whether to approve the Project. The SOI amendment and annexation areas for the City and American Canyon Fire Protection District included in the Project are shown in Figure 3.

Figure 3 Annexation Detail



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1.6 Prior Environmental Document

The City prepared the General Plan EIR for the 2040 General Plan Update (State Clearinghouse No. 2022070038) in accordance with CEQA and the CEQA Guidelines.

On May 20, 2025, the City Council reviewed and considered the entire record before taking the following actions (Resolution No. 2025-37):

- Certified the Final Program EIR (SCH No. 2022070038);
- Adopted CEQA Findings of Fact pursuant to CEQA Guidelines Section 15091;
- Adopted a Statement of Overriding Considerations pursuant to CEQA Guidelines Section 15093;
- Adopted a Mitigation Monitoring and Reporting Program (MMRP) pursuant to CEQA Guidelines Section 15097; and
- Adopted the 2040 General Plan Update, including the "Future Study Area" designation for the Affected Territory.

A Notice of Determination was filed on May 21, 2025. No challenge was filed. The General Plan EIR is conclusive.

The General Plan EIR analyzed the environmental impacts of a full buildout of the 2040 General Plan across the entire planning area, including the City limits, SOI, Urban Limit Line (ULL), and historic water service area. The General Plan EIR analyzed the update to the City's current General Plan, which established the City's vision for future development through the horizon year of 2040. The 2040 General Plan Update is the City's primary guide for future land use and development decisions in a way that meets the community needs and priorities while serving as a key tool for influencing and improving the quality of life for residents and businesses. As such, it serves as the "blueprint" for future development and conservation of a community. The 2040 General Plan Update helps the City plan for important community issues, such as community growth; health, housing, mobility, and infrastructure needs; climate change; and environmental protection. It sets the stage for future social, physical, and economic development of the city.

In the General Plan EIR, the Affected Territory was specifically included in the planning area and its designation as "Future Study Area" was part of the project description analyzed in the Program EIR. The Program EIR also contemplated the potential future expansion of the City's SOI and ULL to include the Affected Territory, as reflected in the "Future Study Area" designation and the General Plan's ULL extension provisions. Furthermore, General Plan Land Use Element Policy LU-11.5 states: LU-11.5: SOI Amendment. Meet and confer with Napa County and LAFCO to amend the City's Sphere of Influence to include the "Hess and Laird" Properties and other properties at the direction of the City Council. The General Plan EIR also identifies LAFCO as a Responsible Agency under the General Plan EIR for its implementation through annexations over the project life. (p. 1-6.)

2 Addendum Criteria

Under Public Resources Code section 21166 and CEQA Guidelines sections 15162 and15164, a lead agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary, but the lead agency determines, based on substantial evidence in the light of the whole record, that none of the following has occurred:

1. Substantial changes are proposed in the project that 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.
2. Substantial changes occur with respect to the circumstances under which the project is undertaken 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.
3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:
   A. The project will have one or more significant effects not discussed in the previous EIR.
   B. Significant effects previously examined will be substantially more severe than shown in the previous EIR.
   C. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative.
   D. Mitigation measures or alternatives that 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.

The analysis pursuant to Public Resources Code section 21166 and sections 15162 and15164 of the CEQA Guidelines demonstrates whether the lead agency can approve the activity as being within the scope of the existing certified EIR, that an addendum to the existing EIR would be appropriate, and no new environmental document, such as a subsequent EIR or EIR supplement, would be required.1 Moreover, the tiering provisions of CEQA Guidelines Section 15183 require that when a project is consistent with the development density established by general plan policies for which an EIR was certified, lead agencies shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project.

The analysis herein substantiates and supports the City's determination that the Project does not require subsequent or supplemental review under Public Resources Code section 21166 and CEQA Guidelines sections 15162 and15164, and contains no peculiar environmental impacts under section 15183. In conjunction with the Program EIR, this Addendum adequately analyzes potential environmental impacts of the Project and no additional environmental review is required.

1 The addendum need not be circulated for public review but can be included in or attached to the final EIR, and the decision-making body shall consider the addendum with the final EIR prior to deciding on the project.

3 Addendum Evaluation

3.1 Overview

3.1.1 No substantial changes justifying preparation of an SEIR are proposed to the Project

Pre-zoning the Project Area as SSZ is consistent with the current land use designations provided in the City's General Plan EIR. The Project would not result in zoning or land use regulations different from those in the City's General Plan such that there would be a net increase of potential buildout in the Affected Territory or associated significant impacts. As noted above, the City's proposed SSZ pre-zoning is substantially more restrictive than the current industrial zoning designation. The SSZ District does not authorize any of the industrial, commercial, or warehouse uses that would be permissible under the County's General Industrial zoning. Rather, the SSZ serves as a zoning district that limits uses to agriculture, grazing, open space, and public uses pending completion of future City planning studies. The effect of the SSZ pre-zoning, upon LAFCO's potential approval of the Reorganization Activities, would be to replace the County's Industry designation with a classification that preserves the property's current fallow/open space condition. As such, the Project would not allow for any intensification of existing or planned land uses beyond what already would be allowed under existing conditions. Additionally, the Project would not authorize or permit any new development within the Affected Territory, as all future development within the Affected Territory would be subject to rezoning and applications for discretionary permits that would separately require their own review and analysis in compliance with CEQA. The City has received no development applications from either Hess or Laird.

3.1.2 No substantial changes to the circumstances have occurred that would justify preparation of an SEIR

No substantial changes in circumstances have occurred since the General Plan EIR was certified on May 20, 2025 — approximately 13 months ago. The Affected Territory remains in a fallow, open space condition. Former vineyard operations have ceased and no new, more intensive development is occurring or planned on the Project Area that would alter the environmental baseline analyzed in the General Plan EIR.

Further, in November 12, 2024, the Napa County Board of Supervisors' rezoned the property from Agriculture, Watershed and Open Space (AWOS) to Industry. As this predated the General Plan EIR certification it was known to the City during General Plan EIR preparation. No new infrastructure projects, changed environmental regulations, or altered site conditions have been identified that would require major revisions to the EIR.

3.1.3 No new information of substantial importance showing an environmental impact that was not previously analyzed to the extent an SEIR is required

Likewise, no new information of substantial importance has become available since certification of the Program EIR that would trigger any of the conditions for subsequent or supplemental environmental review. The pre-zoning to SSZ does not introduce any new land uses, development potential, or significant unmitigated environmental impacts that were not analyzed in the Program

EIR. Because the SSZ District authorizes only agriculture, grazing, open space, and public uses — and no new, more intensive development entitlements —the pre-zoning would not result in new or more severe significant effects. No new mitigation measures or alternatives have been identified that are relevant to this non-development action.

The following table examines each environmental topic area addressed in the Program EIR and confirms that the Project is within the scope of the prior analysis and does not result in any new or substantially more severe environmental impact.

3.2 Environmental Checklist

The purpose of this checklist is to evaluate the Project to determine if it may result in new or substantially more severe environmental impacts when compared to the impacts identified in the certified General Plan EIR. The following sections, adapted from Appendix G of the CEQA Guidelines, examines each environmental topic area addressed in the General Plan Program EIR and confirms that the Project is within the scope of the prior analysis, including applicable MMRPs, and does not result in any new or substantially more severe environmental impact. A "no" answer does not necessarily mean that there are no potential impacts relative to the environmental category; rather, it means there is no change in the condition or status of the impact compared to the conclusions of the General Plan EIR.

Aesthetics: Yes, it is within scope of the General Plan EIR. No new or more severe impact.

The Project does not authorize any new structures or development that would significantly alter the visual character of the property. The property will continue in its existing fallow/open space condition. No new significant sources of light or glare will be introduced. Visual impacts were analyzed in the General Plan EIR and no new or more severe impacts will result from the Project.

Agriculture and Forestry Resources: Yes, it is within scope of the General Plan EIR. No new or more severe impact.

Agricultural uses (former vineyard) have ceased and the property is currently fallow. The SSZ District expressly permits agriculture and grazing as primary uses (ACMC § 19.50.030), preserving the option for future agricultural use. The pre-zoning does not convert farmland to non-agricultural use; rather, it establishes a zoning district allows agriculture, grazing, open space and public uses when the County's current Industry designation authorized conversion of agricultural to industrial use. Agricultural resources impacts were analyzed in the General Plan EIR and no new or more severe impacts will result from the Project.

Air Quality: Yes, it is within scope of the General Plan EIR. No new or more severe impact.

The Project does not authorize any new significant development, construction activity, or operational emissions sources. No significantly new vehicle trips, stationary sources, or fugitive dust emissions will result. Air quality impacts were analyzed in the General Plan EIR and no new or more severe impacts will result from the Project.

Biological Resources: Yes, it is within scope of the General Plan EIR. No new or more severe impact.

The SSZ District expressly agriculture, grazing, open space and public uses (ACMC § 19.50.030), preserving the option for future agricultural use. No significantly new ground disturbance, grading, vegetation removal, or habitat modification is authorized by the SSZ pre-zoning. No new significant impacts to special-status species, sensitive habitats, wetlands, or wildlife corridors will occur.

Biological resources impacts were analyzed in the General Plan EIR and no new or more severe impacts result from the Project.

Cultural Resources: Yes, it is within scope of the General Plan EIR. No new or more severe impact.

The Project does not authorize more significant ground disturbance or construction that could affect historical or archaeological resources because the SSZ District expressly agriculture, grazing, open space and public uses (ACMC § 19.50.030), preserving the option for future agricultural use.. Cultural resources impacts were addressed in the General Plan EIR and no new or more severe impacts will result from the Project.

Energy: Yes, it is within scope of the General Plan EIR. No new or more severe impact.

No new significant increase in energy demand or consumption will result from the Project because the SSZ District expressly permits agriculture, grazing, open space and public uses (ACMC § 19.50.030), preserving the option for future agricultural use. Energy impacts were analyzed in the General Plan EIR and no new or more severe impacts will result from the Project.

Geology and Soils: Yes, it is within scope of the General Plan EIR. No new or more severe impact.

The Project authorizes no significantly new construction, grading, or ground disturbance that could expose people or structures to seismic or geologic hazards, or affect paleontological resources beyond anticipated by the General Plan EIR because the SSZ District expressly permits agriculture, grazing, open space and public uses (ACMC § 19.50.030), preserving the option for future agricultural use. Geology and soils impacts were analyzed in the General Plan EIR and no new or more severe impacts will result from the Project.

Greenhouse Gas Emissions: Yes, it is within scope of the General Plan EIR. No new or more severe impact.

No significantly new GHG emission sources will result from the Project because the SSZ District expressly permits agriculture, grazing, open space and public uses (ACMC § 19.50.030), preserving the option for future agricultural use. GHG impacts were analyzed in the General Plan EIR and no new or more severe impacts will result from the Project.

Hazards and Hazardous Materials: Yes, it is within scope of the General Plan EIR. No new or more severe impact.

The SSZ pre-zoning does not authorize industrial uses that could significantly increase hazardous materials handling, transport, use, or disposal because the SSZ District expressly permits agriculture, grazing, open space and public uses (ACMC § 19.50.030), preserving the option for future agricultural use. No new hazard conditions are created. Proximity to the Napa County Airport was addressed in the General Plan EIR; the SSZ does not introduce incompatible land uses within any Airport Land Use Compatibility Plan zone. Hazard impacts were analyzed in the General Plan EIR and no new or more severe impacts will result from the Project.

Hydrology and Water Quality: Yes, it is within scope of the General Plan EIR. No new or more severe impact.

No new water supply demand is created because the SSZ District expressly permits agriculture, grazing, open space and public uses (ACMC § 19.50.030), preserving the option for future agricultural use. Hydrology and water quality impacts were analyzed in the General Plan EIR and no new or more severe impacts will result from the Project.

Land Use and Planning: Yes, it is within scope of the General Plan EIR. No new or more severe impact.

The SSZ pre-zoning directly correlates with the "Future Study Area" designation in the adopted 2040 General Plan (ACMC § 19.50.020) and establishes consistency as required by law. It does not divide an established community or conflict with any applicable land use plan, policy, or regulation because the SSZ District expressly permits agriculture, grazing, open space and public uses (ACMC § 19.50.030), preserving the option for future agricultural use. This is the express purpose of the pre-zoning action — to achieve General Plan/zoning consistency as required by Gov. Code §§ 56375(a)(7) and 65860.

The Affected Territory is located outside the City's current Sphere of Influence (SOI) and outside the City's current Urban Limit Line (ULL). LAFCO's policy on urban growth boundaries for annexations to a City or Town states: "To the extent that a city or town maintains an urban growth boundary, the affected territory proposed for annexation should be included in the urban growth boundary prior to submittal of an annexation proposal." LAFCO's policy states that ideally, territory proposed for annexation should be within a city's urban growth boundary prior to submittal.

Because this policy is not mandatory, however, the Commission retains the full scope of its discretion to approve conditional annexations. This allows LAFCO to adapt to specific, beneficial regional circumstances.[2]

Conditional annexation of the Affected Territory subject to future adjustment of the ULL addresses and aligns with LAFCO's policies concerning annexation because (i) the landowner concurrently requests that the parcels be included within the City's SOI; (ii) LAFCO encourages concurrent annexation to special districts, including the American Canyon Fire Protection District; (iii) a property tax exchange agreement is in place between all affected agencies; (iv) the annexation facilitates logical and orderly boundaries for all affected agencies. Annexation conditioned on future adjustment of the City's urban growth boundary will facilitate effective long-range planning because it gives the City proactive control over regional development before disjointed growth occurs.

By bringing the Affected Territory under its jurisdiction, the City can logically map out a development future which, for example, may contain transportation corridors, coordinate the efficient extension of water and sewer infrastructure, and reserve strategic plots for schools, parks, and emergency services in advance of potential development pressure. Annexation transforms unpredictable fringe development into a deliberate, economically sustainable expansion that aligns with the City's long-term vision for housing, commerce, and resource conservation. The General Plan EIR also contemplated the potential future expansion of the City's SOI and ULL to include the Affected Territory, as reflected in the "Future Study Area" designation and the General Plan's ULL extension provisions.

Land use impacts associated with the pre-zoning which expressly permits agriculture, grazing, open space and public uses (ACMC § 19.50.030), preserving the option for future agricultural use were analyzed in the General Plan EIR and no new or more severe impacts will result from the Project.

Mineral Resources: Yes, it is within scope of the General Plan EIR. No new or more severe impact.

2 LAFCOs are afforded "large discretionary powers" under the Cortese-Knox-Hertzberg Local Government Reorganization Act. (Gov. Code § 56300(a); *Bozung v. Local Agency Formation Commission* (1975) 13 Cal.3d 263

The Project does not affect the availability of known mineral resources or mineral resource recovery sites because the SSZ District expressly permits agriculture, grazing, open space and public uses (ACMC § 19.50.030), preserving the option for future agricultural use. The pre-zoning would not allow a development that may preclude mineral extraction. Mineral resource impacts were analyzed in the General Plan EIR and no new or more severe impacts will result from the Project.

Noise: Yes, it is within scope of the General Plan EIR. No new or more severe impact.

The Project does not introduce any new noise sources because the SSZ District expressly permits agriculture, grazing, open space and public uses (ACMC § 19.50.030). No new significant construction, operational noise, or ground-borne vibration will result. Noise impacts were analyzed in the General Plan EIR and no new or more severe impacts will result from the Project.

Population and Housing: Yes, it is within scope of the General Plan EIR. No new or more severe impact.

The Project does not significantly impact population or housing because the SSZ District expressly permits agriculture, grazing, open space and public uses (ACMC § 19.50.030 No residents currently reside on the property. Therefore, displacement of people or housing will not occur. Population and housing impacts were analyzed in the General Plan EIR and no new or more severe impacts will result from the Project.

Public Services: Yes, it is within scope of the General Plan EIR. No new or more severe impact.

No new significant demand for fire protection, police protection, schools, parks, or other public services will result from the Project because the SSZ District expressly permits agriculture, grazing, open space and public uses (ACMC § 19.50.030). Public service impacts were analyzed in the General Plan EIR and no new or more severe impacts will result from the Project.

Fire protection to the property is currently provided by the American Canyon Fire Protection District (ACFPD) by mutual aid (Long Range Master Plan, 2022). Current response times show up to eight (8) minutes for the property. Reorganization Activities to the ACFPD would not significantly increase demands for fire or municipal services because the SSZ District expressly permits agriculture, grazing, open space and public uses as primary uses (ACMC § 19.50.030). As such, it results in no significant change to the existing physical environment and does not require significant construction of new facilities, increased service capacity, or any other alteration of facilities or operations.

Recreation: Yes, it is within scope of the General Plan EIR. No new or more severe impact. The Project does not generate significantly new residents or increase demand for recreational facilities because the SSZ District expressly permits agriculture, grazing, open space and public as primary uses (ACMC § 19.50.030). No physical deterioration of existing parks or facilities will occur. Recreation impacts were analyzed in the General Plan EIR and no new or more severe impacts will result from the Project.

Transportation: Yes, it is within scope of the General Plan EIR. No new or more severe impact.

No significant new vehicle trips are generated by the Project because the SSZ District expressly permits agriculture, grazing, open space and public uses (ACMC § 19.50.030).. Transportation impacts were analyzed in the General Plan EIR and no new or more severe impacts will result from the Project.

Tribal Cultural Resources: Yes, it is within scope of the General Plan EIR. No new or more severe impact.

The Project does not authorize significant new ground disturbance or construction that could affect tribal cultural resources because the SSZ District expressly permits agriculture, grazing, open space and public uses (ACMC § 19.50.030). Therefore, no significant new physical changes to the property will occur. The City conducted AB 52 consultation as part of the General Plan Update process. Tribal cultural resources impacts were analyzed in the General Plan EIR and no new or more severe impacts will result from the Project.

Utilities and Service Systems: Yes, it is within scope of the General Plan EIR. No new or more severe impact.

No new significant demand for water supply, wastewater treatment, stormwater drainage, electric power, natural gas, telecommunications, or solid waste disposal will result from the Project because the SSZ District expressly permits agriculture, grazing, open space and public uses (ACMC § 19.50.030). Utility impacts were analyzed in the General Plan EIR and no new or more severe impacts will result from the Project.

Wildfire: Yes, it is within scope of the General Plan EIR. No new or more severe impact.

The Project does not authorize new significant structures or development in a wildfire hazard area because the SSZ District expressly permits agriculture, grazing, open space and public uses (ACMC § 19.50.030). No new significant population will be exposed to wildfire risks. Wildfire impacts were analyzed in the General Plan EIR and no new or more severe impacts will result from the Project.

4 Cumulative Impacts

The Project would not result in new or more severe cumulatively considerable impacts than were identified in City's 2040 General Plan Program EIR. No new or substantially more severe significant effects would occur related to cumulative impacts, and no new mitigation measures are required. Additionally, any potential future use of the Project Area beyond allowable pre-zoning land uses without further environmental review is too speculative to consider in cumulative impacts. No substantial changes have occurred that require major revisions to the City's 2040 General Plan Program EIR, and none of the conditions identified in Public Resources Code section 21166 or CEQA Guidelines section 15162 requiring preparation of a subsequent or supplemental EIR have been met.

5 Conclusion

The City of American Canyon, as the CEQA lead agency, determined that an addendum is the appropriate CEQA document because the Project would not create any new significant environmental impacts, substantially increase the severity of previously identified impacts, or involve changes in circumstances or new information that would require further environmental review under Public Resources Code section 21166 and CEQA Guidelines section 15162. The Project is consistent with the development and growth assumptions analyzed in the certified 2040 General Plan Program EIR. Therefore, no additional CEQA review is required.

6 References

1. City of American Canyon, 2040 General Plan (adopted May 20, 2025).
2. City of American Canyon, 2040 General Plan Draft Environmental Impact Report (SCH No. 2022070038) (September 2024).
3. City of American Canyon, 2040 General Plan Final Environmental Impact Report (SCH No. 2022070038) (May 2025).
4. City of American Canyon, CEQA Findings of Fact, Statement of Overriding Considerations, and Mitigation Monitoring and Reporting Program for 2040 General Plan (May 20, 2025).
5. City of American Canyon, Ordinance No. 2025-02 (2040 General Plan Municipal Code Consistency Updates) (May 20, 2025).
6. City of American Canyon, Notice of Determination — 2040 General Plan Municipal Code Consistency Updates (June 4, 2025).
7. American Canyon Municipal Code, Title 19, Chapter 19.50 (Special Study Zone District).
8. California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq.
9. CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3), Sections 15061(b)(3), 15062, 15162, 15164, 15168, 15183.
10. California Government Code Sections 56375(a)(7), 56425, 65859, 65860.
11. Napa County Board of Supervisors, Resolution approving General Plan Amendment (P21-00055) and Rezone (P24-0221) for the Hess-Laird Property from AWOS to Industrial, with Addendum to 2008 General Plan EIR (November 12, 2024).
12. Napa County Board of Supervisors, Urban Limit Line and RHNA Allocation Transfer Agreement with City of American Canyon (Agreement No. 260377B) (May 2026).
13. Napa LAFCO, Staff Report — Current and Future Proposals (June 1, 2026).
14. Rincon Consultants, Inc., Environmental Impact Report for the City of American Canyon 2040 General Plan Update (2024–2025).
15. AP Triton, American Canyon Fire Protection District Long-Range Master Plan (September 2022).

EXHIBIT D

Planning, Building & Environmental Services

1195 Third Street, Suite 210
Napa, CA 94559
www.napacounty.gov
Main: (707) 253-4417

Brian D. Bordona
Director

RECEIVED
AUG 11 2026
CITY OF AMERICAN CANYON
COMMUNITY DEVELOPMENT DEPARTMENT

Napa County Airport Land Use Consistency Determination

August 11, 2026

Hess-Laird (Hess Collection Winery)
Attn: Timothy Persson
4411 Redwood Road
Napa, CA 94558

Dear Mr. Persson,

The project considered by the Airport Land Use Commission (ALUC) Executive Officer consisted of pre-zoning the Affected Territory as a "special study zone" ("SSZ") within the Special Study Zone District as described in American Canyon Municipal Code Chapter 19.50, consistent with he 2040 General Plan Update.

The properties are located generally east of Highway 29, north of Paoli Loop Road and south of South Kelly Road (APNs 057-090-065 and 057-090-089), in Napa County, Airport Compatibility Zones D1 and D2.

Chapter 2.6 Referral Process After local Agency Attains General Plan Consistency of the Airport Land Use Compatibility Plan, allows a local agency to voluntarily refer Major Land Use Actions to the ALUC. Section 2.6.1(c) states that the ALUC Executive Officer is authorized on behalf of the ALUC to provide comments on all Actions referred to the ALUC on a voluntary basis.

On May 7, 2025, the Airport Land Use Commission found the City of American 2040 General Plan Update consistent with the Countywide Airport Land Use Compatibility Plan.

The ALUC's Executive Officer considered the City of American Canyon's voluntary referral of the City of American Canyon Hess/Laird Territory Special Study Pre-Zoning Action and found the Action consistent with the Napa Countywide Airport land use Compatibility Plan provided the requirements are met for the following uses:

- Allowable uses in the Special Study Pre-Zoning district, such as agriculture and grazing, are deemed "Conditional" within the Napa County Airport Compatibility Zones D1 and D2,

provided the use avoids new features that attract birds or provide mitigation consistent with FAA regulations[1], exercise caution with uses involving noise-sensitive animals.

Because the City of American Canyon does not define "public uses" the following consistency information is provided for the various public uses described in the Napa County Airport Compatibility Plan, Exhibit 5-1 Basic Compatibility Criteria, Napa County Airport.

- Allowable uses in the Special Study Pre-Zoning district, such as public uses [Outdoor Major Assembly Facilities (capacity ≥1,000 people); spectator-oriented outdoor stadiums, amphitheaters, fairgrounds, racetracks, water parks, zoos] are deemed "incompatible" within the Napa County Airport Compatibility Zone D1, and "Conditional" within the Napa County Airport Compatibility Zone D2, and allowed only if alternative site outside zone would not serve intended function; exercise caution if clear audibility by users is essential; ensure intensity criteria met.
- Allowable uses in the Special Study Pre-Zoning district, such as public uses [Outdoor Large Assembly Facilities (capacity 300-999 people): spectator-oriented outdoor stadiums, amphitheaters] are deemed "Conditional" within the Napa Couty Airport Compatibility Zones D1 and D2, ensure intensity criteria met; not allowed if intended primarily for use by children; exercise caution if clear audibility by users is essential.
- Allowable uses in the Special Study Pre-Zoning district, such as public uses [Outdoor Group Recreation (limited spectator stands): athletic fields, water recreation facilities (community pools), picnic areas] are deemed "Conditional" within the Napa Couty Airport Compatibility Zones D1 and D2, ensure intensity criteria met; not allowed if intended primarily for use by children; exercise caution if clear audibility by users is essential.
- Allowable uses in the Special Study Pre-Zoning district, such as public uses [Outdoor Non-Group Recreation (small/low-intensity): golf courses (except clubhouse), tennis courts, shooting ranges, bocci courts, trails, passive regional/community parks with minimal recreational facilities are deemed "Normally Compatible" within the Napa County Airport Compatibility Zones D1 and D2.
- Allowable uses in the Special Study Pre-Zoning district, such as public uses (Local/Community Parks: neighborhood parks, community parks, playgrounds are deemed "Normally Compatible" within the Napa County Airport Compatibility Zones D1 and D2.

This finding of consistency with the ALUCP applies to the version of the project referred to the Executive Director, dated July 31, 2026. If there are any changes to the projects scope or scale it may necessitate further consistency review.

Please note that future development of the parcels would be subject to the Airport Land Use Compatibility Plan.

[1] No proposed use shall be allowed that would create an increased attraction for wildlife and that is inconsistent with FAA rules and regulations including, but not limited to, FAA Advisory Circular 150/5200-33C, Hazardous Wildlife Attractants On or Near Airports and Advisory Circular 150/5200-34A, Construction or Establishment of Landfills near Public Airports. Of particular concern are landfills and certain recreational or agricultural uses that attract large flocks of birds which pose bird strike hazards to aircraft in flight. See Policy 3.5.3.

If you have any questions about this letter, please feel free to contact me at (707) 259-8757 or via email at Wendy.Atkins@CountyofNapa.org.

Sincerely,

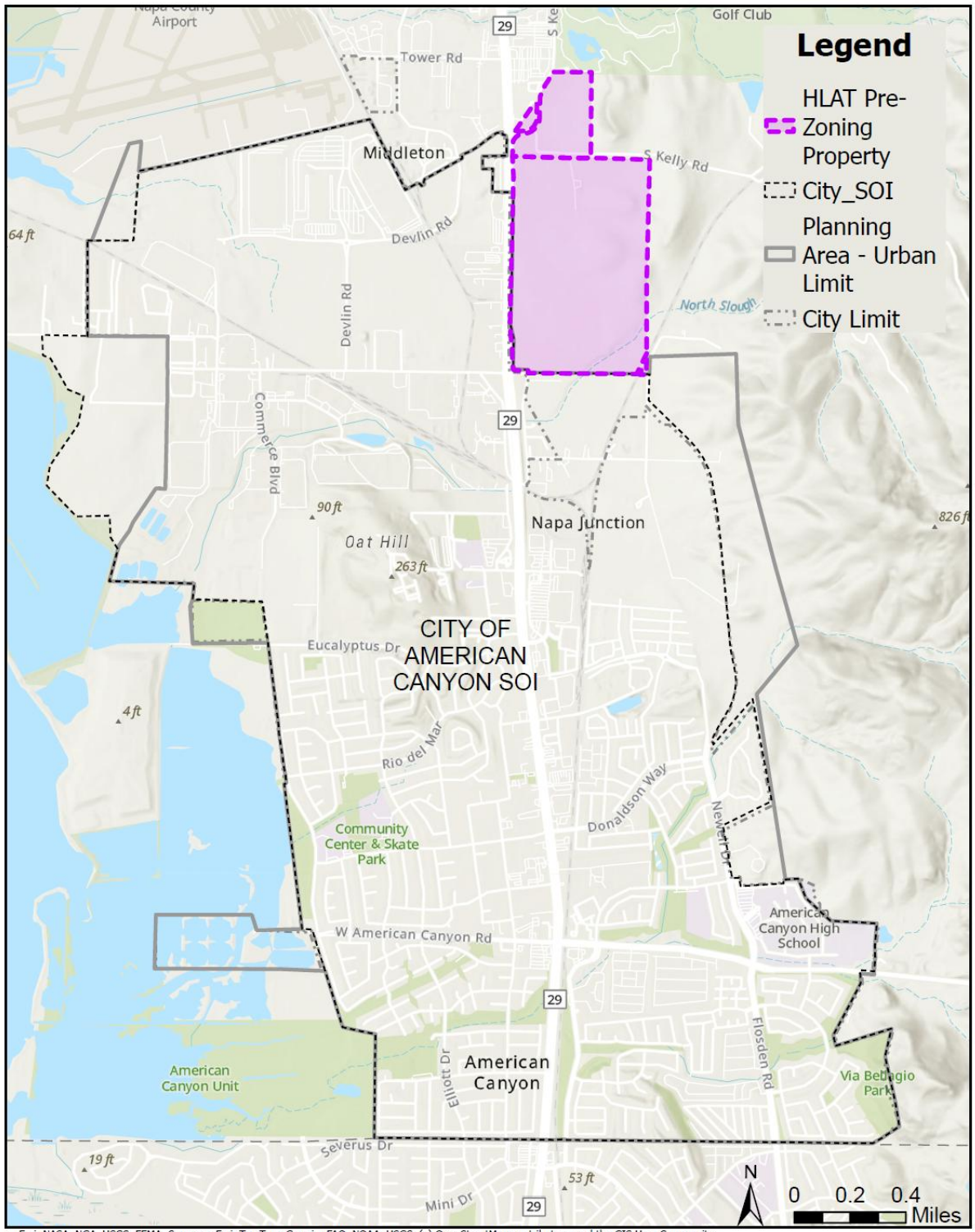


Wendy Atkins, Planner II

cc: Nick Johnson, via email: nick@jacair.com

ATTACHMENT 2

Hess/Laird Location Map



, , Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, (c) OpenStreetMap contributors, and the GIS User Community

Prepared by: JAC Development

TITLE

2026 Biennial City Conflict of Interest Code

RECOMMENDATION

Adopt a Resolution approving the 2026 Conflict of Interest Code as amended, authorizing future updates by Resolution, and authorizing the City Clerk to complete and file the 2026 Local Biennial Notice.

CONTACT

Taresa Geilfuss, CMC, City Clerk

BACKGROUND & ANALYSIS

The Political Reform Act requires local agencies to adopt and periodically review a Conflict of Interest Code identifying positions that make or participate in governmental decisions and establishing the financial disclosure requirements applicable to those positions. As part of the 2026 biennial review, staff evaluated the City's existing Conflict of Interest Code to ensure that it accurately reflects the City's current organizational structure, position responsibilities, and decision-making authority.

The proposed 2026 update comprehensively revises the City's designated-position and disclosure-category structure. The update separately identifies statutory filers subject to Government Code section 87200; adds City advisory commissions and newly created or previously unlisted positions; updates or removes outdated position titles; reorganizes designated positions by department and functional group; and revises disclosure assignments based on the decision-making responsibilities associated with each position.

The disclosure categories have also been rewritten and consolidated from six categories to five more clearly defined categories. The revised categories address full disclosure, land use and real property, Citywide contracting and purchasing, departmental regulatory and operational authority, and department-specific purchasing and contracting. This approach is intended to more clearly align required financial disclosures with the types of governmental decisions each designated position may make or participate in.

The update also establishes a duty-based approach for Management Analysts, consultants,

temporary and provisional employees, volunteers, retired annuitants, and newly created positions so that disclosure requirements may be assigned based on the actual responsibilities of the individual or position.

Collectively, these revisions are intended to improve the clarity and administration of the City's Conflict of Interest Code while ensuring that designated employees disclose financial interests that are reasonably related to the governmental decisions they may make or participate in.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Organizational Effectiveness: "Deliver exemplary government services."

FISCAL IMPACT

The recommended action will have no financial impact.

ENVIRONMENTAL REVIEW

15378(b) - The action is not a "Project" subject to the California Environmental Quality Act ("CEQA") because it does not qualify as a "Project" under Public Resources Code Sections 21065 and 21080 and in Section 15378(b) of Title 14 of the California Code of Regulations.

COMMUNICATION

Level 0: No Further Public Communication Needed

ATTACHMENTS:

1. Resolution - Conflict of Interest
Exhibit A - COI Appendices A and B
2. Previous COI Appendices A and B

RESOLUTION NO. 2026-

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON ADOPTING THE 2026 CONFLICT OF INTEREST CODE AS AMENDED, AUTHORIZING FUTURE UPDATES BY RESOLUTION, AND AUTHORIZING THE CITY CLERK TO COMPLETE AND FILE THE 2026 LOCAL BIENNIAL NOTICE

WHEREAS, the Political Reform Act of 1974, Government Code section 81000 et seq., requires state and local government agencies to adopt and maintain a Conflict of Interest Code; and

WHEREAS, Government Code section 87300 requires every agency to adopt and promulgate a Conflict of Interest Code pursuant to the Political Reform Act; and

WHEREAS, Government Code section 87302 requires a Conflict of Interest Code designating positions that involve the making or participation in the making of governmental decisions that may foreseeably have a material effect on a financial interest and to specify the disclosure categories applicable to those positions; and

WHEREAS, certain City officials are statutory filers pursuant to Government Code section 87200 and are subject to the disclosure requirements established by the Political Reform Act independent of the City's designation of positions in its Conflict of Interest Code; and

WHEREAS, Government Code section 87306.5 requires local agencies to review their Conflict of Interest Codes biennially and determine whether amendments are necessary due to changed circumstances, including the creation or deletion of positions, changes in assigned duties, or changes in organizational structure; and

WHEREAS, as part of the City's 2026 biennial review, the City Clerk reviewed the City's existing Conflict of Interest Code, designated positions, organizational structure, position titles, assigned duties, and disclosure categories and determined that amendments are necessary; and

WHEREAS, the proposed 2026 Conflict of Interest Code updates the City's designated positions to reflect its current organizational structure and position responsibilities, including the addition of newly created or previously unlisted positions, the removal or modification of obsolete position titles, and revisions to disclosure requirements based upon the governmental decision-making responsibilities of each position; and

WHEREAS, the 2026 update separately identifies officials subject to Government Code section 87200, organizes designated positions by department or functional group, and establishes provisions for determining appropriate disclosure requirements for Management Analysts, consultants, temporary and provisional employees, volunteers, retired annuitants, and newly created positions based upon their assigned duties; and

WHEREAS, the City's disclosure categories have also been revised and consolidated to more clearly identify financial interests that may foreseeably be affected by the governmental decisions made or participated in by designated employees; and

WHEREAS, Appendix A – Statutory Filers and Designated Positions**,** attached hereto and incorporated herein by this reference, identifies the City's statutory filers and designated positions and assigns the applicable disclosure category or categories to each designated position; and

WHEREAS, Appendix B – Disclosure Categories, attached hereto and incorporated herein by this reference, establishes the disclosure requirements applicable to the designated positions identified in Appendix A; and

WHEREAS, the City Council finds that adoption of the amended Conflict of Interest Code will ensure that the City's Code accurately reflects the City's current organizational structure and the responsibilities of officers, employees, consultants, and other persons who make or participate in governmental decisions.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of American Canyon hereby resolves as follows:

SECTION 1. Recitals.
The foregoing recitals are true and correct and are incorporated into this Resolution by this reference.

SECTION 2. Adoption of 2026 Conflict of Interest Code.
The City Council hereby adopts the City's amended 2026 Conflict of Interest Code**,** consisting of Appendix A – Statutory Filers and Designated Positions and Appendix B – Disclosure Categories**,** attached hereto as Exhibit A and incorporated herein by this reference.

SECTION 3. Statutory Filers.
Officials identified in Appendix A as statutory filers pursuant to Government Code section 87200 shall comply with the disclosure and filing requirements applicable to statutory filers under the Political Reform Act and regulations of the Fair Political Practices Commission.

SECTION 4. Designated Positions.
Persons occupying positions designated in Appendix A shall file Statements of Economic Interests (Form 700) in accordance with the disclosure category or categories assigned to their positions and applicable provisions of the Political Reform Act and Fair Political Practices Commission regulations.

SECTION 5. Special and Newly Created Positions.
Management Analysts shall disclose financial interests according to the disclosure category or categories appropriate to their actual assigned duties. Consultants and persons serving in temporary, provisional, volunteer, retired annuitant, or newly created positions shall disclose financial interests according to the disclosure category or categories appropriate to the duties performed, consistent with Appendices A and B and applicable law.

SECTION 6. Superseding Prior Appendices.
Upon the effective date of this Resolution, Appendices A and B adopted as part of the City's prior Conflict of Interest Code are superseded and replaced in their entirety by the Appendices A and B adopted by this Resolution. All other provisions of the City's Conflict of Interest Code that are not amended by this Resolution shall remain in full force and effect.

SECTION 7. Future Amendments.
To the extent permitted by law, future amendments to the City's Conflict of Interest Code, including amendments necessary as a result of biennial review, organizational changes, the creation or deletion of positions, changes in position titles or responsibilities, or revisions to disclosure categories, may be adopted by resolution of the City Council without amendment of the ordinance originally establishing the City's Conflict of Interest Code, unless an ordinance amendment is otherwise required by law.

SECTION 8. Authorization of City Clerk.
The City Clerk is authorized and directed to take all actions necessary to implement and administer the City's 2026 Conflict of Interest Code, including maintaining the City's list of Form 700 filers, providing notice to designated filers, completing and filing the City's **2026 Local Agency Biennial Notice**, and submitting or transmitting the Conflict of Interest Code and related documentation to the appropriate code reviewing body or other agency as required by law.

SECTION 9. Severability.
If any section, subsection, sentence, clause, phrase, or portion of this Resolution or the Conflict of Interest Code adopted herein is for any reason held invalid or unconstitutional by a court of competent jurisdiction, such decision shall not affect the validity of the remaining portions.

SECTION 10. Effective Date.
This Resolution shall take effect immediately upon its adoption.

PASSED, APPROVED AND ADOPTED at a regular meeting of the City Council of the City of American Canyon held on September 15, 2026, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Pierre Washington, Mayor

ATTEST:

_____
Taresa Geilfuss, CMC, City Clerk

APPROVE AS TO FORM:

_____
Matthew T. Summers, City Attorney

Exhibit A:
Appendix A - Statutory Filers and Designated Positions
Appendix B - Disclosure Categories

APPENDIX A

STATUTORY FILERS AND DESIGNATED POSITIONS

STATUTORY FILERS

The following positions are subject to the disclosure requirements of Government Code section 87200 and are required, as applicable, pursuant to Government Code section 87500 to file Statements of Economic Interests (Form 700) electronically with the California Fair Political Practices Commission (FPPC).

Group	Position
Elected and Appointed Officials	Mayor
	City Council
	Planning Commission
City Staff	City Attorney
	City Manager
	Finance Director

DESIGNATED POSITIONS

Pursuant to Government Code section 87302(a), the City's Conflict of Interest Code designates those positions, other than positions specified in Government Code section 87200, that involve the making or participation in the making of governmental decisions that may foreseeably have a material effect on a financial interest. Persons holding designated positions are required to file Statements of Economic Interests (Form 700) with the City Clerk in accordance with the disclosure categories assigned below.

Department / Group	Designated Position	Disclosure Category
Members of Advisory Bodies	Parks and Community Services Commission	1
	Open Space, Active Transportation and Sustainability Commission	1

Department / Group	Designated Position	Disclosure Category
Administration	Assistant City Manager	1
	Deputy City Manager	1
	City Clerk	1
	Deputy City Clerk	3
	Human Resources Manager	3
	Human Resources Analyst (MA)	3
	Police Chief	1
Community Development	Community Development Director	1
	Chief Building Official	2, 4
	Senior Planner	2, 4
	Assistant Planner/Associate Planner	2, 4
	Code Enforcement Officer	2, 4
Finance	Finance Manager	1
	Senior Accountant (MA)	3
	Senior Budget Analyst (MA)	3
	Information Technology Consultant	3, 5
Parks and Recreation	Parks and Recreation Director	1
	Recreation Manager	3, 5
Public Works	Public Works Director	1
	Assistant Director of Public Works	1
	Maintenance and Utilities Director	1
	Senior Civil Engineer	2, 3, 4
	Development Services Engineer	2, 3, 4

Public Works	Public Works Superintendent	3, 5
	Environmental Services Manager	3, 4, 5
	Operations Manager	3, 5
	Water Systems Manager	3, 4, 5
	Wastewater Manager	3, 4, 5
Other	Management Analyst (MA)	As assigned*
	Consultants	See note**
	Temporary or Provisional Positions	
	Volunteers and Retired Annuitants	
	Newly Created Positions	

* Management Analyst positions shall be designated based on the actual duties assigned to the position.
** Consultants and persons serving in temporary, provisional, volunteer, retired annuitant, or newly created positions shall disclose based on the disclosure category or categories that are appropriate to the individual's duties.

APPENDIX B

DISCLOSURE CATEGORIES

Category 1 – Full Disclosure
Persons in this category shall disclose all investments and business positions in business entities, interests in real property, and sources of income, including loans, gifts, and travel payments, as required by the Political Reform Act.

Category 2 – Land Use, Development, and Real Property
Persons in this category shall disclose: (1) interests in real property located within, or within two miles of, the jurisdiction of the City of American Canyon, or otherwise subject to the City's jurisdiction; and (2) investments and business positions in business entities, and sources of income, including loans, gifts, and travel payments, from persons or entities engaged in land development, construction, real estate, architecture, engineering, planning, environmental consulting, surveying, building, property management, or other activities subject to the City's land use, permitting, development, or regulatory authority.

Category 3 – Contracts, Purchasing, and City Services
Persons in this category shall disclose investments and business positions in business entities, and sources of income, including loans, gifts, and travel payments, from persons or entities that provide, or during the reporting period have provided, goods, equipment, materials, supplies, leased facilities, consulting services, professional services, or other services of the type used or purchased by the City.

Category 4 – Departmental Regulatory and Operational Decisions
Persons in this category shall disclose investments and business positions in business entities, and sources of income, including loans, gifts, and travel payments, from persons or entities that are subject to the regulatory, permitting, licensing, inspection, enforcement, operational, or other decision-making authority of the employee's department or area of responsibility.

Category 5 – Department-Specific Purchasing and Contracting
Persons in this category shall disclose investments and business positions in business entities, and sources of income, including loans, gifts, and travel payments, from persons or entities that provide goods, equipment, materials, supplies, consulting services, professional services, or other services of the type used, purchased, administered, or recommended by the employee's department or area of responsibility.

Special Assignment Provision
Consultants and persons serving in temporary, provisional, volunteer, retired annuitant, or newly created positions shall disclose based on the disclosure category or categories that are appropriate to the individual's duties.

APPENDIX A

DESIGNATED POSITIONS AND PERSONS PERFORMING DESIGNATED SERVICES

POSITION	**DISCLOSURE CATEGORIES**
Assistant City Manager	All
Assistant Planner/Associate Planner	1, 2, 3, 4
City Attorney	All
City Clerk	1, 2, 5, 6
City Manager	All
Chief Building Official	1, 2, 3, 4
Code Enforcement Officer	1, 2, 3, 4
Consultants[1]	All
Community Development Director	1, 2, 3, 4
Development Services Engineer	All
Finance Director	All
Finance Manager	All
Human Resources Officer	All
Management Analyst	All
Maintenance and Utilities Director	All
Parks and Recreation Director	1, 2, 6
Police Chief	1, 2
Public Works Director	All
Public Works Superintendent	All
Recreation Manager	5,6
Senior Civil Engineer	All
Senior Planner	1, 2, 3, 4
Temporary or Provisional Positions[2]	
Volunteer and Retired Annuitant[3]	
Plant Operations Manager	1, 2, 5, 6
Wastewater Systems Manager	1, 2, 5, 6
Water Systems Manager	1, 2, 5, 6

[1] Consultants – All key personnel listed in consultant firm contracts are required to file a Form 700 – Statement of Economic Interests (as well as consultants/temporary staff acting in staff capacity).

[2] Temporary or provisional positions may be included in the list of designated employees when the City Manager determines that the temporary position is the functional equivalent of a designated position. If such a determination is made, then disclosure shall be pursuant to the disclosure category required by this Code for the comparable designated staff position.

[3] Volunteers and retired annuitants may be included in the list of designated employees when the City Manager determines that the temporary position is the functional equivalent of a designated position. If such a determination is made, then disclosure shall be pursuant to the disclosure category required by this Code for the comparable designated staff position.

APPENDIX B

DISCLOSURE CATEGORIES
REPORTABLE INVESTMENTS, INTEREST IN REAL PROPERTY AND INCOME

1. All investments and sources of income.

2. All interest in real property.

3. All investments, interests in real property, and sources of income subject to the regulatory, permit, or licensing authority of the department.

4. Investments in business entities and business positions and sources of income which engage in land development, construction or the acquisition or sale of real property.

5. Investments in business entities and business positions and sources of income of the type which, within the past two years, have contracted with the City of American Canyon to provide services, supplies, materials, machinery, or equipment.

6. Investments in business entities and business positions and sources of income of the type which, within the past two years, have contracted with the designated employees' department to provide services, supplies, materials, machinery, or equipment.

TITLE

Approve an exemption from environmental review under the California Environmental Quality Act (CEQA) and conduct Final Reading and Adoption of the Accessory Animal Husbandry and Livestock Keeping Regulations Zoning Code Amendment

RECOMMENDATION

Waive final reading, read by title only, and adopt an Ordinance to amend American Canyon Municipal Code Sections 19.05.090, 19.05.100, 19.10.040, and 19.31.020 to remove the prohibition on swine, limit livestock keeping to the Residential Estate (RE) Zoning district, and remove obsolete General Plan policy references.

CONTACT

Brent Cooper, AICP, Community Development Director
Matthew Summers, City Attorney

BACKGROUND & ANALYSIS

On September 1, 2026, the City Council approved the first reading of an Ordinance approving a proposed Zoning Code Amendment that would revise three sections of the American Canyon Municipal Code related to animal husbandry and livestock keeping. These include:

1) Remove language that currently excludes swine from the definition of Animal Husbandry in ACMC Section 19.05.090 and 2) removes the same prohibition from the definition of Livestock Keeping in ACMC section 19.05.100. This amendment would allow swine to be kept wherever animal husbandry or livestock keeping is otherwise permitted under the zoning code, subject to all existing animal keeping standards, lot size requirements, setbacks, and nuisance regulations.

3) The amendment also provides that animal husbandry and livestock keeping is permitted as an accessory use only in the Residential Estate (RE) zoning district.

If the final reading is approved, the Ordinance will become effective 30 days later on October 15, 2026. A copy of the Ordinance is included as Attachment 1.

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

Not applicable.

ENVIRONMENTAL REVIEW

The proposed amendment is exempt from environmental review under the California Environmental Quality Act (CEQA) because it can be seen with certainty that the amendment will not have a significant effect on the environment. The amendment does not authorize new development and retains all existing operational standards governing animal keeping.

The proposed amendments do not authorize new development, increase development density, expand the geographic area where livestock keeping or animal husbandry is allowed, or eliminate existing operational standards applicable to animal keeping. Rather, the amendments remove the prohibition on swine within existing use classifications, reduce and clarify where livestock keeping and animal husbandry are permitted, and retain all existing standards governing lot size, setbacks, maintenance, sanitation, nuisance prevention, and code enforcement. Accordingly, the amendments will not result in a direct or reasonably foreseeable indirect physical change in the environment and are exempt under CEQA Guidelines Section 15061(b)(3). The proposed amendments are also exempt under CEQA Guidelines Section 15305 (Minor Alterations in Land Use Limitations) because they constitute minor modifications to land use regulations and do not change land use designations, density, or development intensity.

COMMUNICATION

Level 0: No Further Public Communication Needed

ATTACHMENTS:

1. Ordinance Animal Keeping Zoning

ORDINANCE NO. 2026-XX

AN ORDINANCE AMENDING AMERICAN CANYON MUNICIPAL CODE SECTIONS 19.05.090, 19.05.100, 19.10.040, AND 19.31.020 TO REMOVE THE PROHIBITION ON SWINE, LIMIT LIVESTOCK KEEPING TO THE RESIDENTIAL ESTATE (RE) ZONING DISTRICT, AND REMOVE OBSOLETE GENERAL PLAN POLICY REFERENCES

WHEREAS, the American Canyon Municipal Code (ACMC) regulates livestock keeping and animal husbandry through Chapter 19.05 (Use Classifications), Chapter 19.10 (Residential Zoning Districts), and Chapter 19.31 (Animal Keeping Standards); and

WHEREAS, ACMC Sections 19.05.090 and 19.05.100 currently exclude swine from the definitions of animal husbandry and livestock keeping; and

WHEREAS, the proposed amendments would remove those exclusions and allow swine where animal husbandry or livestock keeping are otherwise permitted by the ACMC; and

WHEREAS, The Residential Estate (RE) zoning district is intended for low-density residential development on large lots where livestock keeping is compatible with the area's rural character. In contrast, the Rural Residential Hillside (RRH), Rural Residential (RR), and Residential Single-Family (RS) zoning districts are intended primarily for residential use and generally have development patterns or lot sizes that make livestock keeping less compatible with surrounding neighborhoods.; and

WHEREAS, the proposed amendments would clarify that livestock keeping is allowed as an accessory use only in the Residential Estate (RE) zoning district. Livestock-keeping uses that were legally established in other residential zoning districts may continue in accordance with the Municipal Code as legal nonconforming uses; and

WHEREAS, the proposed amendments would clarify that animal husbandry is permitted only in the Residential Estate (RE) zoning district, as animal husbandry is generally a rural agricultural use that is most appropriate on larger lots with greater separation from nearby homes. Any animal husbandry uses that were legally established in other residential zoning districts may continue as legal nonconforming uses; and

WHEREAS, ACMC Chapter 19.31 establishes standards for animal keeping, including minimum lot sizes, setbacks, maintenance requirements, sanitation standards, nuisance prevention measures, and enforcement provisions, all of which would remain in effect; and

WHEREAS, the proposed amendments primarily remove the prohibition on swine and update zoning regulations while retaining all existing animal-keeping standards and operational requirements; and

WHEREAS, the proposed amendments would remove obsolete General Plan policy references currently contained in ACMC Section 19.10.040; and

WHEREAS, the proposed amendments are consistent with the General Plan because they support animal keeping and agricultural uses in appropriate locations while maintaining compatibility with surrounding properties through existing Municipal Code standards; and

WHEREAS, on July 30, 2026, the Planning Commission of the City of American Canyon conducted a public hearing and unanimously recommended City Council approval of the ordinance; and

WHEREAS, a duly noticed public hearing was held by the City Council of the City of American Canyon on September 1, 2026, at which time all interested persons were given an opportunity to be heard regarding the proposed Municipal Code amendments.

NOW, THEREFORE, BE IT ORDAINED that the City Council of the City of American Canyon hereby adopts amendments to the American Canyon Municipal Code as follows:

SECTION 1. Amendment to ACMC Section 19.05.090 – Animal Husbandry

Amend the definition of Animal Husbandry to remove the prohibition on swine as follows:

Animal Husbandry: Raising of animals or production of animal products, such as eggs or dairy products, on an agricultural or commercial basis. This classification includes grazing, ranching, dairy farming, poultry raising, the raising of fur-bearing animals, the raising of swine, and the sale and storage of materials produced on-site, but excludes feed lots, stockyards, slaughterhouses, dead animal rendering, and wild animal keeping.

SECTION 2. Amendment to ACMC Section 19.05.100 – Livestock Keeping

Amend the definition of Livestock Keeping to allow swine as follows:

Livestock Keeping: The keeping of large animals for personal purposes, including equines, bovines, sheep, goats, and swine in accordance with the provisions of Chapter 19.31, Animal Keeping Regulations.

SECTION 3. Amendment to ACMC Section 19.31.020(B)(2) – Animal Keeping Standards

Amend the livestock provisions to allow swine as follows:

(B) Permitted Animals

(2) Livestock. Large animals, including equines, bovines, sheep, goats, and swine, may be kept for personal purposes where livestock keeping is permitted as an accessory use in the underlying zoning district.

SECTION 4. Amendment to ACMC Section 19.10.040 – Allowable Uses Table

Amend ACMC Section **19.10.040** to:

1. Permit livestock keeping as an accessory use only in the Residential Estate (RE) zoning district;
2. Clarify where animal husbandry is permitted;
3. Continue recognition of legally established nonconforming uses as provided by the Municipal Code; and
4. Remove obsolete General Plan policy references as shown on the table below:

Table 19.10.040
PERMITTED AND CONDITIONALLY PERMITTED USES
RESIDENTIAL DISTRICTS [1]

RESIDENTIAL DISTRICT	ZONING DISTRICTS						
Use Classifications	**RRH**	**RE**	**RR**	**RS**	**RM**	**RH**	**Related Provisions**
Residential							
Congregate living facility	-	-	-	-	P	P	
Cottage food operations	P	P	P	P	P	P	
Employee housing (1 to 6 occupants)	P	P	P	P	-	-	
Garden apartments	-	-	-	-	P	P	
Mobilehome	-	C	C	C	-	-	
Mobilehome park	-	-	-	-	C	C	Chapter 19.10
Multifamily residential	-	-	-	-	P	P	
Residential Care Home, Small	**P**	**P**	**P**	**P**	**P**	**P**	
Second residential unit	P	P	P	P	P	-	Section 19.10.120
Single room occupancy	-	-	-	-	-	P	Section 19.10.160
Single-family residential		-	-	-	-	-	
- Detached	P	P	P	P	P[2]	P[2]	
- Semidetached	-	-	P[3]	P[4]	P	P	
Townhouses	-	-	-	-	P	P	
Commercial							
Adult business	-	-	-	-	-	-	
Animal sales and service	-	C	-	-	-	-	
- Boarding kennel	-	C	-	-	-	-	
- Grooming	-	C	-	-	-	-	
- Medical care	-	C	-	-	-	-	
- Retail care	-	C	-	-	-	-	
Bank, savings and loan	-	-	-	-	-	-	
- Drive-up service	-	-	-	-	-	-	
- Walk-up service	-	-	-	-	-	-	
Building materials and services	-	-	-	-	-	-	
Catering	-	-	-	-	-	-	
Commercial printing	-	-	-	-	-	-	
- Limited printing	-	-	-	-	-	-	
Communication services	-	-	-	-	-	-	
Entertainment, indoor	-	-	-	-	-	-	
- Amusement center	-	-	-	-	-	-	
- Gaming	-	-	-	-	-	-	

Funeral and interment services	-	-	-	-	-	-	
Health services	-	-	-	-	-	-	
Laboratory	-	-	-	-	-	-	
Lodging services	-	-	-	-	-	-	
- Bed and breakfast inn	C	C	C	-	-	-	
Long-term care facility	-	-	-	-	-	-	
Maintenance and repair services	-	-	-	-	-	-	
Nursery	-	-	-	-	-	-	
Offices, business, and professional	-	-	-	-	-	-	
On-premises liquor consumption		-	-	-	-	-	
- Tasting room	-	-	-	-	-	-	
Pawnshops	-	-	-	-	-	-	
Personal improvement services	-	-	-	-	-	-	
- Night use	-	-	-	-	-	-	
Personal services	-	-	-	-	-	-	
Recycling collection center	-	-	-	-	-	-	
Restaurant	-	-	-	-	-	-	
- Night use	-	-	-	-	-	-	
Restaurant, take-out	-	-	-	-	-	-	
- Night use	-	-	-	-	-	-	
Retail food sales	-	-	-	-	-	-	
- Convenience store	-	-	-	-	-	-	
- Liquor store	-	-	-	-	-	-	
Retail sales	-	-	-	-	-	-	
- Limited	-	-	-	-	-	-	
- Visitor-oriented	-	-	-	-	-	-	
Vehicle/equipment sales and service	-	-	-	-	-	-	
- Automobile rental	-	-	-	-	-	-	
- Automobile washing	-	-	-	-	-	-	
- Service station	-	-	-	-	-	-	
- Vehicle/equipment repair	-	-	-	-	-	-	
- Vehicle/equipment sales, lease and rentals	-	-	-	-	-	-	
Wholesaling, commercial	-	-	-	-	-	-	
Industrial							
Hazardous use	-	-	-	-	-	-	
Industry, general	-	-	-	-	-	-	
Industry, limited	-	-	-	-	-	-	
Mineral extraction	-	-	-	-	-	-	
Recycling center	-	-	-	-	-	-	
Research and development	-	-	-	-	-	-	

Storage tank(s)	-	-	-	-	-	-	
Vehicle/equipment services	-	-	-	-	-	-	
- Vehicle/equipment repair	-	-	-	-	-	-	
- Vehicle storage	-	-	-	-	-	-	
Wholesaling, distribution and storage	-	-	-	-	-	-	
- Small scale	-	-	-	-	-	-	
- Trucking terminal	-	-	-	-	-	-	
Recreational							
Recreational facilities, public	C	C	P	P	P	P	
Recreation and sports, outdoor	C	C	C	C	C	C	
Recreation, passive	C	C	C	C	C	C	
Staging area	C	C	C	-	-	-	
Public and Quasi-Public							
Antenna	-	-	P	P	P	P	
- Exceeding height limitations	-	-	C	C	C	C	
Community center	-	-	-	C	C	C	
Conference center	-	-	-	-	-	-	
Cultural facility	-	-		C	C	C	
Day care center	-	M	M	M	M	M	
Homeless shelter	-	-	-	-	C	C	Chapter 19.42
Public safety facility	C	C	C	C	C	C	
Religious facility	C	C	C	C	C	C	
School	-	C	C	C	C	C	
Utilities, major	-	-	C	C	C	C	
Utilities, minor	-	-	P	P	P	P	
Agriculture							
Animal husbandry	-	P	-	-	-	-	
Crop production	C	P	-	-	-	-	
Accessory							
Accessory dwelling unit	-	-	-	-	-	-	
Livestock keeping	-	P	-	-	-	-	Chapter 19.31
Caretaker's quarters	C	C	-	-	-	-	
Family child care home, large	P	P	P	P	-	-	Chapter 19.33
Family child care home, small	P	P	P	P	P	P	
Guest house	C	C	C	C	-	-	
Home occupation	P	P	P	P	P	P	Chapter 19.29
Horticulture, limited	P	P	P	P	P	P	
Room rentals	-	-	C	C	-	-	
Temporary							
Animal show			-	-	-	-	

Commercial filming	C	C	C	C	C	C	
Mobile structures	C	C	C	C	C	C	Chapter 19.30
Personal property sales	P	P	P	P	P	P	

SECTION 5. CEQA Findings The City Council finds that the proposed Municipal Code amendments are exempt from environmental review under the California Environmental Quality Act (CEQA) Guidelines Section 15061(b)(3) (General Rule) because it is clear that the amendments will not have a significant effect on the environment.

The amendments do not allow new development, increase development density, expand the areas where livestock keeping or animal husbandry are permitted, or remove existing rules for animal keeping. Instead, the amendments remove the prohibition on swine in certain existing use classifications, clarify and in some cases limit where livestock keeping and animal husbandry are allowed, and continue to apply all existing standards related to lot size, setbacks, maintenance, sanitation, nuisance prevention, and code enforcement. Because the amendments will not cause a direct or reasonably foreseeable indirect physical change to the environment, they are exempt under CEQA Guidelines Section 15061(b)(3).

The City Council also finds that the amendments are exempt under CEQA Guidelines Section 15305 (Minor Alterations in Land Use Limitations) because they make only minor changes to land use regulations and do not change land use designations, allowed density, or development intensity.

SECTION 6. **EFFECTIVE DATE**. This ordinance shall become effective effect 30 days after its final passage pursuant to Government Code section 36937.

SECTION 7. **SEVERABILITY**. If any section, sentence, clause or phrase of this Ordinance is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance. The City Council hereby declares that it would have passed this Ordinance and adopted this Ordinance and each section, sentence, clause or phrase thereof, irrespective of the fact that one or more sections, subsections, sentences, clauses or phrases be declared invalid or unconstitutional.

SECTION 8. CUSTODIAN OF RECORDS. The documents and materials that constitute the record of proceedings on which this Ordinance is based are located at the City Clerk's office located at 4831 Broadway, Suite 201, American Canyon, CA 94503. The custodian of these records is the City Clerk.

The foregoing Ordinance was introduced at a regular meeting of the City Council of the City of American Canyon, State of California, held on the 1st day of September, 2026 by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

The foregoing Ordinance was adopted at a regular meeting of the City Council of the City of American Canyon, State of California, held on the _____ day of _____, _____, by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

_____

Pierre Washington, Mayor

ATTEST:

APPROVED AS TO FORM:

_____

Taresa Geilfuss, CMC, City Clerk

_____

Matthew Summers, City Attorney

TITLE

Approve an exemption from environmental review under the California Environmental Quality Act (CEQA) and conduct Final Reading and Adopt the Accessory Dwelling Unit, Density Bonus, and Inclusionary Housing Ordinance Update

RECOMMENDATION

Waive final reading, read by title only, and adopt an Ordinance to amend the American Canyon Municipal Code to update Chapter 19.27 (Density Bonus), Chapter 19.28 (Inclusionary Housing), and Chapter 19.39 (Accessory Dwelling Units) consistent with current State laws and Housing Element Implementation Measures.

CONTACT

Brent Cooper, AICP, Community Development Director

BACKGROUND & ANALYSIS

On September 1, 2026, the City Council approved the first reading of an Ordinance to update the City's Inclusionary Housing, Density Bonus, and Accessory Dwelling Unit (ADU) ordinances to reflect changes in State law, clarify administrative procedures, and support the production of new housing. Together, these regulations help implement the Housing Element and support the City's efforts to meet its Regional Housing Needs Allocation (RHNA), which requires planning for housing across all income levels.

The RHNA is supported by a range of policies and programs designed to reduce barriers to housing development. Because affordable housing is often the most difficult type of housing to finance and construct, State and local policies provide additional incentives and requirements to encourage the development of housing affordable to lower-income households.

The draft ordinance was amended at introduction to correct a typographical error that excluded the word "major" in reference to a transit stop discussed in Section 19.27.030(I). A copy of the revised Inclusionary Housing, Density Bonus, and ADU ordinances is included as Attachment 1.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Organizational Effectiveness: "Deliver exemplary government services."

FISCAL IMPACT

N/A

ENVIRONMENTAL REVIEW

The City Council finds the municipal code amendments are exempt from environmental review under CEQA because the amendments are consistent with State law that preempt any inconsistent local ordinance. Thus, the City's action is not creating a new land use regulation and it can be seen with certainty that no environmental impacts will result from the City's action. Consequently, and in accordance with CEQA Section 21084(a) and both Section 15002(i)(1) – lack of Local Jurisdictional Discretion – and Section 15061(b)(3) – General Rule of Exemption – of the CEQA Guidelines, the ordinance adoption is exempt from CEQA review and a Notice of Exemption has been prepared for this proposed amendment. Further, Public Resources Codes Section 21080.17 exempts the adoption of an ordinance implementing state law governing accessory dwelling units and junior accessory dwelling units from review under the California Environmental Quality Act.

COMMUNICATION

Level 0: No Further Public Communication Needed

ATTACHMENTS:

1. Ordinance Affordable Housing Updates

ORDINANCE NO. 2026-XX

AN ORDINANCE TO AMEND THE AMERICAN CANYON MUNICIPAL CODE TO UPDATE CHAPTER 19.27 (DENSITY BONUS), CHAPTER 19.28 (INCLUSIONARY HOUSING), AND CHAPTER 19.39 (ACCESSORY DWELLING UNITS) CONSISTENT WITH CURRENT STATE LAWS AND HOUSING ELEMENT IMPLEMENTATION MEASURES

WHEREAS, pursuant to Section 65300 of the State Planning and Zoning Law, the City of American Canyon (City) has adopted a General Plan (the 2040 General Plan Update) to provide comprehensive long-range planning and a blueprint of the City's future form, including land use and circulation maps that specify the roadway network and the distribution of types and intensities of land; and

WHEREAS, WHEREAS, on January 31, 2023, the City Council adopted the 6th Cycle Housing Element; and

WHEREAS, on June 30, 2023, the California Department of Housing and Community Development certified the Housing Element; and

WHEREAS, the Housing Element includes programs intended to reduce constraints to housing production, facilitate housing development for all income levels, and maintain compliance with State housing law; and

WHEREAS, Housing Element Implementation Programs C, F, P, and V require updates to the Accessory Dwelling Unit, Density Bonus, and Inclusionary Housing ordinances; and

WHEREAS, since adoption of the City's existing ordinances, the California Legislature has enacted numerous amendments to State housing laws affecting accessory dwelling units, density bonus requirements, affordability requirements, development incentives, parking standards, and housing approval procedures; and

WHEREAS, on April 23, 2026, June 25, 2026, and July 30, 2026, the Planning Commission of the City of American Canyon conducted a public hearing and unanimously recommended City Council approval of the ordinance; and

WHEREAS, a duly noticed public hearing was held by the City Council of the City of American Canyon on September 1, 2026, at which time all interested persons were given an opportunity to be heard regarding the proposed Municipal Code amendments.

NOW, THEREFORE, BE IT ORDAINED that the City Council of the City of American Canyon hereby adopts the following amendments to the American Canyon Municipal Code: Chapter 19.27 (Density Bonus) as depicted on Exhibit A, and Chapter 19.28 (Inclusionary Housing) as depicted on Exhibit B, Chapter 19.39 (Accessory Dwelling Units) as depicted on Exhibit C; to clarify administration, retain the City's inclusionary housing requirements, support affordable housing production, and remain consistent with State law.

SECTION 1. CEQA FINDINGS: The City Council finds the municipal code amendments are exempt from environmental review under CEQA because the amendments are consistent with State law that preempt any inconsistent local ordinance. Thus, the City's action is not creating a new land use regulation and it can be seen with certainty that no environmental impacts will result from the City's action. Consequently, and in accordance with CEQA Section 21084(a) and both Section 15002(i)(1) – lack of Local Jurisdictional Discretion – and Section 15061(b)(3) – General Rule of Exemption – of the CEQA Guidelines, the ordinance

adoption is exempt from CEQA review and a Notice of Exemption has been prepared for this proposed amendment. Further, Public Resources Codes Section 21080.17 exempts the adoption of an ordinance implementing state law governing accessory dwelling units and junior accessory dwelling units from review under the California Environmental Quality Act.

SECTION 3. GENERAL PLAN CONSISTENCY. The municipal code amendments are consistent with the Housing Element of the American Canyon General Plan and support implementation of the City's housing goals, policies, and programs. The amendments help remove constraints to housing production, facilitate the development of housing affordable to lower-income households, and ensure continued compliance with State housing law. Specifically, the amendments further:

- **Goal H-1 (Housing Supply)** by updating local regulations to remove regulatory barriers and maintain a framework that supports housing production for all income levels, consistent with Policies H-1.2 (Zoning Capacity) and H-1.6 (Constraints to Housing Production).
- **Goal H-2 (Balance of Housing Types)** by maintaining and clarifying provisions that support a variety of housing types, including affordable housing, density bonus projects, and accessory dwelling units, consistent with Policies H-2.1 (Diversity of Housing Types), H-2.3 (Housing Incentives), and H-2.7 (Accessory Dwelling Units).
- **Goal H-5 (Affordable Housing)** by preserving the City's inclusionary housing requirements, continuing implementation of the Affordable Housing Nexus Fee program, and updating density bonus provisions that encourage the production of affordable housing. These amendments directly advance Policies H-5.1 (Inclusionary Housing), H-5.8 (Affordable Housing Incentives), H-5.13 (Inclusionary Housing Ordinance), and H-5.14 (Affordable Housing Nexus Fee).
- **Goal H-6 (Preservation of Affordability)** by strengthening affordability requirements, housing agreement provisions, and long-term affordability standards for inclusionary units, consistent with Policies H-6.3 and H-6.6.

In addition, the amendments implement several Housing Element programs, including Program C (Municipal Code Updates), Program F (Accessory Dwelling Units), Program P (Density Bonus Program), and Program V (Inclusionary Housing Program), all of which call for updates to the Municipal Code to ensure compliance with State law and facilitate the production of housing affordable to a range of income levels.

SECTION 4. EFFECTIVE DATE. This ordinance shall become effective effect 30 days after its final passage pursuant to Government Code section 36937.

SECTION 5. SEVERABILITY. If any section, sentence, clause or phrase of this Ordinance is for any reason held to be invalid or unconstitutional by a decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance. The City Council hereby declares that it would have passed this Ordinance and adopted this Ordinance and each section, sentence, clause or phrase thereof, irrespective of the fact that one or more sections, subsections, sentences, clauses or phrases be declared invalid or unconstitutional.

SECTION 6. CUSTODIAN OF RECORDS. The documents and materials that constitute the record of proceedings on which this Ordinance is based are located at the City Clerk's office located at 4831 Broadway, Suite 201, American Canyon, CA 94503. The custodian of these records is the City Clerk.

The foregoing Ordinance was introduced at a regular meeting of the City Council of the City of American Canyon, State of California, held on the 1st day of September, 2026 by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

The foregoing Ordinance was adopted at a regular meeting of the City Council of the City of American Canyon, State of California, held on the _____ day of _____, _____, by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

_____
Pierre Washington, Mayor

ATTEST:

_____
Taresa Geilfuss, CMC, City Clerk

APPROVED AS TO FORM:

_____
Matthew Summers, City Attorney

EXHIBITS

A. American Canyon Municipal Code Chapter 19.27 (Density Bonus)
B. Chapter 19.28 (Inclusionary Housing)
C. Chapter 19.39 (Accessory Dwelling Units)

EXHIBIT A

Chapter 19.27 Density Bonus

19.27.000 Purpose of chapter.

This chapter is intended to implement the requirements of Government Code Section 65915 et seq., and the housing element of the general plan. In the event of any conflict between this chapter and applicable state law, the applicable state law shall control.

19.27.005 Definitions

For purposes of this chapter, the following definitions apply:

“Additional density bonus” means the bonus authorized by Government Code § 65915(v) for a housing development that first qualifies for the maximum 50 percent base density bonus and that agrees to provide additional for-sale or rental units affordable to very low-income or moderate-income households. Moderate-income units used to qualify for this additional bonus may be rental or for-sale.

"Affordable housing cost" has the definition set forth in California Health and Safety Code Section 50052.5.

"Affordable rent" has the definition set forth in California Health and Safety Code Section 50053.

"Child care facility" means a facility other than a family day care home, including, but not limited to, infant centers, preschools, extended day care facilities, and school age childcare centers.

"Common interest development" has the definition set forth in California Civil Code Section 4100.

"Concession" or "incentive" means any of the following:

1. A reduction in site development standards or a modification of zoning code requirements or architectural design requirements that exceed the minimum building standards approved by the California Building Standards Commission, as provided in Part 2.5 (the State Building Code commencing with Health and Safety Code Section 18901) of Division 13 of the California Health and Safety Code, including, but not limited to, a reduction in setback and square footage requirements, and in the ratio of vehicular parking spaces that would otherwise be required, that results in identifiable and actual cost reductions.

2. Approval of mixed use zoning in conjunction with a housing project, if commercial, office, industrial or other land uses will reduce the cost of a housing development, and if the commercial, office, industrial or other land uses are compatible with the housing project and the existing or planned development in the area where the proposed housing project will be located.

3. Other regulatory incentives or concessions proposed by the applicant or the city and approved by the city that result in identifiable and actual cost reductions.

This definition does not limit or require the provision of direct financial incentives for a housing development, including the provision of publicly owned land, by the city or the waiver of fees or dedication requirements.

"Density bonus" means a density increase over the otherwise maximum allowable residential density under the applicable zoning code provisions and the land use element of the general plan as of the date of application by the applicant to the city.

"Development standard" means the site or construction conditions that apply to a residential development pursuant to any ordinance, general plan element, specific plan, or other city condition, law, policy, resolution or regulation.

"Director" means the director of community development or the director's designee.

"Disabled veteran" has the definition set forth in California Government Code Section 18541.

"Equivalent size" means that the replacement dwelling units contain at least the same total number of bedrooms as the units being replaced.

"Homeless person" has the definition set forth in 42 U.S.C. Section 11301 et seq.

"Housing development" means a development project for five or more residential units, including mixed-use developments. "Housing development" also includes a subdivision or common interest development, or the substantial rehabilitation of an existing multifamily dwelling where the result of the rehabilitation would be a net increase in the number of residential units.

"Lower income households" has the definition set forth in California Health and Safety Code Section 50079.5.

"Major transit stop" has the definition set forth in Public Resources Code Section 21155.

“Maximum allowable residential density” means the greatest number of units allowed, in dwellings per acre, under the City’s Zoning Ordinance and the land use element of the General Plan, or, if a range of density is permitted, the greatest number of units allowed by the specific zoning range, as applicable to the project

"Moderate income households" has the definition for "persons or families of moderate income" set forth in California Health and Safety Code Section 50093(b).

"Multifamily dwelling" has the definition set forth in California Government Code Section 65863.4(d).

"Property containing existing affordable housing" means any property that includes any parcel on which rental dwelling units are or have been: (1) subject to any other form of rent or price control through a public entity's valid exercise of its police power; (2) occupied by lower or very low income households; or (3) subject to a recorded covenant, ordinance, or law that restricts rents to levels affordable to persons and households of lower or very low income. Such rental dwelling units include rental dwelling units that

have been vacated or demolished in the five-year period preceding the application seeking the density bonus.

"Replace" has the definition set forth in California Government Code Section 65915(c)(3)(B).

"Senior citizen housing development" has the definition set forth in California Civil Code Section 51.3.

"Special needs housing development" has the definition set forth in California Health and Safety Code Section 51312.

"Specific, adverse impact" has the definition set forth in California Government Code Section 6559.5(d)(2).

"Transitional foster youth" has the definition set forth in California Education Code Section 66025.9.

"Unobstructed access" means access where a resident is able to travel without encountering natural or constructed impediments, as outlined in California Government Code Section 65915(p)(2).

"Very low income households" has the definition set forth in California Health and Safety Code Section 50105

19.27.010 General density bonus provisions

(A) Application. Any person that desires a density bonus shall make an application on a form approved by the director at the time of submitting an entitlement application for the housing development for which a density bonus is requested. The density bonus provided by this chapter only applies to housing developments consisting of five or more dwelling units.

(B) Incentives and Concessions. When an applicant seeks a density bonus for a housing development or for the donation of land for housing within the city, the city shall provide the applicant incentives or concessions for the production of housing units and childcare facilities as provided in this chapter.

(C) Available Density Bonus Options.

The planning commission or city council shall grant one density bonus, the amount of which shall be as specified in Section 19.27.030, and incentives or concessions as described in Section 19.27.020, when an applicant for a housing development seeks and agrees to construct a housing development, excluding any units permitted by the density bonus awarded pursuant to this chapter, that shall contain at least one of the following:

(1) Ten percent of the total units of a housing development for rental or sale to lower income households.

(2) Five percent of the total units of a housing development for rental or sale to very low-income households.

(3) A senior citizen housing development.

(4) Ten percent of the total dwelling units of a housing development for sale to moderate-income households, provided that all units in the housing development are offered to the public for purchase.

(5) Ten percent of the total units of a housing development for transitional foster youth, disabled veterans, or homeless persons to be provided at the same affordability level as very low-income units subject to a recorded affordability restriction of fifty-five years. As used in this subsection, "total units" or "total dwelling units" does not include units permitted by a density bonus awarded pursuant to this chapter, but includes units designated to satisfy a requirement under the City's Inclusionary Housing Requirements Ordinance (chapter 19.28).

Upon deeming a density bonus application complete and verifying eligibility under Government Code § 65915, the City shall issue a determination awarding one base density bonus, the amount of which shall be as specified in Section 19.27.030, and incentives or concessions as described in Section 19.27.020, when an applicant for a housing development seeks and agrees to construct a housing development, excluding any units permitted by any density bonus awarded pursuant to this chapter, that shall contain at least one of the qualifying affordability options.

(D) Applicant's Election of Basis for Bonus.

For purposes of calculating the amount of the base density bonus pursuant to Section 19.27.030, the applicant must elect whether the base bonus shall be awarded on the basis of paragraph (1), (2), (3), (4) or (5) of subsection C of this section. A housing development that first qualifies for the maximum base density bonus may also receive an additional density bonus pursuant to Government Code § 65915(v) by providing additional very low-income or moderate-income units as specified in Section 19.27.030(J).

(E) Continued Affordability.

(1) Qualified Households. An applicant shall agree that the occupants of the low, very low, and moderate income units that are directly related to the receipt of the density bonus in a housing development or common interest development shall be low, very low, or moderate income households, as applicable.

(2) Term.

(a) An applicant shall agree to set rents at affordable rent levels and to the continued affordability of all rental units that qualified the applicant for the award of the density bonus for a period of fifty-five (55) years or a longer period of time if required by any applicable construction or mortgage financing assistance program, mortgage insurance program, or rental subsidy program.

(b) All for-sale units shall initially be sold to very low, lower, or moderate income households at an affordable housing cost and shall be subject to a recorded affordability restriction of fifty-five (55) years or a longer period of time if required by any applicable construction or mortgage financing assistance program, mortgage insurance program, or other subsidy program.– If the unit is not purchased by an income-qualified household within one hundred and eighty (180) days after the issuance of the certificate of occupancy, the unit shall be purchased by a qualified nonprofit housing corporation that meets all of the following requirements, pursuant to a recorded contract that satisfies all of the requirements specified in paragraph (10) of subdivision (a) of Section 402.1 of the Revenue and Taxation Code:

(i) The nonprofit corporation has a determination letter from the Internal Revenue Service affirming its tax-exempt status pursuant to Section 501(c)(3) of the Internal Revenue Code and is not a private foundation, as defined in Section 509 of the Internal Revenue Code.

(ii) The nonprofit corporation is based in California.

(iii) All of the board members of the nonprofit corporation have their primary residence in California.

(iv) The primary activity of the nonprofit corporation is the development and preservation of affordable home ownership housing in California that incorporates within their contracts for initial purchase a repurchase option that requires a subsequent purchaser of the property that desires to resell or convey the property to offer the qualified nonprofit corporation the right to repurchase the property prior to selling or conveying that property to any other purchaser pursuant to an equity sharing agreement or affordability restrictions on the sale and conveyance of the property that ensure that the property will be preserved for lower income housing for at least forty-five (45) years for owner-occupied housing units and will be sold or resold only to very low, lower, or moderate income households.

(3) Equity Sharing. The city shall require an equity-sharing agreement for all for-sale units, unless such an agreement would be in conflict with the requirements of another public funding source or law.

(4) Notwithstanding any other provision of this chapter, moderate-income units provided to qualify a project for the additional density bonus under Section 19.27.030(J) and Government Code § 65915(v) may be offered as rental or for-sale units. Rental units shall be subject to an affordability term of fifty-five (55) years, consistent with subsection (E)(2)(a), or a longer period of time if required by any applicable construction or mortgage financing assistance program, mortgage insurance program, or other subsidy program.

(F) Housing Development Involving Property Containing Existing Affordable Housing. An applicant shall be ineligible for a density bonus or any other incentives or concessions under this chapter if the housing development is proposed on any parcel or parcels on which rental dwelling units that:

(1) Have been vacated or demolished in the five-year period preceding the application;

(2) Have been subject to a recorded covenant, ordinance, or law that restricts rents to levels affordable to persons and families of lower or very low income;

(3) Subject to any other form of rent or price control through a public entity's valid exercise of its police power; or

(4) Occupied by lower or very low income households, for a proposed housing development involving a property containing existing affordable housing, unless:

(a) The proposed housing development replaces the existing affordable housing units. If the replacement units will be rental dwelling units, these units shall be subject to a recorded affordability restriction for at least fifty-five years. If the proposed development is for-sale units, the units replaced shall be affordable as defined in Section 50052.5 of the Health and Safety Code, and

(b) Either:

(i) The proposed housing development, inclusive of the units replaced, contains affordable units at the percentages set forth in subsection C of this section, or

(ii) Each unit in the development, exclusive of a manager's unit or units, is affordable to, and occupied by, either a lower or very low-income household.

19.27.015 Requirements for equity-sharing agreement.

The following provisions shall be included in any equity-sharing agreement required under this chapter:

(A) Upon resale, the seller of the unit may retain the value of any improvements, the down payment, and the seller's proportionate share of appreciation. The city shall recapture any initial subsidy and its proportionate share of appreciation, which amount shall be used within five years for any of the purposes that promote home ownership, as described in California Health and Safety Code Section 33334.2(e).

(B) For purposes of this section, the city's initial subsidy shall be equal to the fair market value of the home at the time of initial sale, minus the initial sale price to the moderate-income household, as applicable, plus the amount of any down payment assistance or mortgage assistance. If upon resale the market value is lower than the initial market value, the value at the time of the resale shall be used as the initial market value.

(C) For purposes of this section, the city's proportionate share of appreciation shall be equal to the ratio of the initial subsidy to the fair market value of the unit at the time of initial sale.

19.27.020 Incentives and concessions

(A) An applicant for a density bonus pursuant to Section 19.27.010 may submit a proposal for the specific incentives or concessions that the applicant requests pursuant to this chapter, and may request a meeting with the director.

(B) Subject to subsection C below, the applicant shall receive the following number of incentives or concessions:

(1) One incentive or concession for projects that include at least ten percent (10%) of the total units for lower income households, at least five percent (5%) for very low income households, or at least ten percent (10%) for persons and families of moderate income in a development in which the units are for sale.

(2) Two incentives or concessions for projects that include at least seventeen percent (17%) of the total units for lower income households, at least ten percent (10%) for very low income households, or at least twenty percent (20%) for persons and families of moderate income in a development in which the units are for sale.

(3) Three incentives or concessions for projects that include at least twenty-four percent (24%) of the total units for lower income households, at least fifteen percent (15%) for very low income households, or at

least thirty percent (30%) for persons and families of moderate income in a development in which the units are for sale.

(4) Five incentives or concessions for a project in which between eighty to one hundred percent (80-100%) of the originally proposed units are restricted to lower-income households and the remaining proposed units are for moderate-income households, except for the manager's unit. If the project is located within one-half mile of a major transit stop or is located in a very low vehicle travel area in a designated county, the applicant shall also receive a height increase of up to three additional stories, or 33 feet.

(5) One incentive or concession for projects that include at least twenty percent (20%) of the total units for lower income students in a student housing development. If a project includes at least twenty-three percent (23%) of the total units for lower income students in a student housing project, the applicant shall instead receive two incentives or concessions.

(6) Four incentives or concessions for projects that include at least sixteen percent (16%) of the units for very low income households or at least forty-five percent (45%) for persons and families of moderate income in a development in which the units are for sale.

(C) The planning commission or city council shall grant the concession or incentive requested by the applicant, unless it makes a written finding, based upon substantial evidence, that:

(1) The concession or incentive does not result in identifiable and actual affordable housing cost reductions, or rents for the targeted units will not be set as specified in Section 19.27.010(E);

(2) The concession or incentive would have a specific, adverse impact upon public health and safety, or on any real property listed in the California Register of Historical Resources, and there is no feasible method to satisfactorily mitigate or avoid the specific adverse impact without rendering the development unaffordable to low and moderate income households; or

(3) The concession or improvement would be contrary to state or federal law.

(D) The City is not required to provide incentives or concessions to transient housing, including a hotel, motel, or bed and breakfast inn. This subsection does not apply to a residential hotel or a resident's use or marketing of their unit as short-term lodging.

(E) A grant of a incentive or concession may not result in a proposed project with a commercial floor area ratio that is greater than two and a half times the premises' current allowed base zone commercial floor area ratio. This limitation does not apply to a project which submitted a preliminary application or an entitlement application prior to January 1, 2026.

(F) Projects that qualify for the additional density bonus pursuant to Government Code, § 65915(v) remain eligible for incentives or concessions pursuant to this chapter and Government Code, § 65915(d). The number of incentives or concessions shall be determined in accordance with state law and shall not be reduced due to a request for the additional density bonus.

19.27.025 Waiver or reduction of development standards.

(A) An applicant may submit a proposal to the city and request a meeting with the director to waive or reduce development standards that the applicant believes will physically preclude housing construction that satisfies Section 19.27.010(C) criteria at the densities or with the concessions or incentives permitted by this chapter. Such proposal may not increase the number of incentives or concessions that the applicant is entitled to under Section 19.27.020.

(B) The planning commission or city council shall waive or reduce an applicant's development standard request, unless it makes a written finding, based upon substantial evidence, that:

(1) The waiver or reduction would have a specific, adverse impact upon public health and safety, or on any real property listed in the California Register of Historical Resources, and there is no feasible method to satisfactorily mitigate or avoid the specific adverse impact; or

(2) The waiver or reduction would be contrary to state or federal law.

19.27.030 Calculation of density bonus

(A) The applicant is entitled to a density bonus that varies according to the percentage of affordable housing units that exceed the percentage established in Section 19.27.010(C).

(B) For housing developments meeting the lower income household criteria of Section 19.27.010(C)(1), the density bonus shall be calculated as follows:

Table 19.27.030(B)
Density Bonus for Lower Income Units

Percentage Low-Income Units	Percentage Density Bonus
10	20
11	21.5
12	23
13	24.5
14	26
15	27.5
17	30.5
18	32
19	33.5
20	35
21	38.75

22	42.5
23	46.25
24	50

(C) For housing developments meeting the very low income criteria of Section 19.27.010(C)(2), the density bonus shall be calculated as follows:

Table 19.27.030(C)
Density Bonus for Very Low Income Units

Percentage Very Low Income Units	Percentage Density Bonus
5	20
6	22.5
7	25
8	27.5
9	30
10	32.5
11	35
12	38.75
13	42.5
14	46.25
15	50

(D) For housing developments meeting the criteria of Sections 19.27.010(C)(3), and 19.27.010(C)(5), (senior citizen and transitional foster youth, disabled veterans, or homeless persons), the density bonus shall be 20 percent.

(E) For housing developments meeting the moderate income criteria of Section 19.27.010(C)(4), the density bonus shall be calculated as follows:

Table 19.27.030(E)
Density Bonus for Moderate Income Units

Percentage Moderate Income Units	Percentage Density Bonus
10	5

11	6
12	7
13	8
14	9
15	10
16	11
17	12
18	13
19	14
20	15
21	16
22	17
23	18
24	19
25	20
26	21
27	22
28	23
29	24
30	25
31	26
32	27
33	28
34	29
35	30
36	31
37	32

38	33
39	34
40	35
41	38.75
42	42.5
43	46.25
44	50

(F) All density calculations resulting in fractional units shall be rounded up to the next whole number.

(G) A density bonus shall not require a general plan amendment, zoning change, other discretionary approval, or study other than those provided under California Government Code section 65915(j)(1).

(H) A density bonus shall not require the city to waive any unrelated development standard ordinance, except as provided for in Sections 19.27.20 and 19.27.25.

(I) A project in which between eighty to one hundred percent (80-100%) of the originally proposed units are restricted to lower income households and the remaining proposed units are for moderate-income households, except for the manager's unit, shall be entitled to a density bonus equal to 80 percent of the number of units reserved for lower income households. If the project is located within one-half mile of a major transit stop or is located in a very low vehicle travel area, the City shall not impose any maximum controls on density.

(J) Additional Density Bonus Pursuant to Government Code, § 65915(v):

(1) Eligibility. A housing development that first qualifies for the maximum base density bonus of 50 percent under this chapter by providing either (i) at least 15 percent of the total units for very low-income households, or (ii) at least 24 percent of the total units for lower income households, or (iii) at least 44 percent of the total units for moderate-income households, may receive an additional density bonus by providing additional rental or for sale very low-income or moderate-income units as described below.

(2) Additional Bonus for Very Low-Income Units. If the applicant provides additional very low-income units beyond those required to achieve the maximum base bonus, the project shall receive the following additional density bonus (calculated on the project's maximum allowable residential density):

Table 19.27.030(J)
Additional Density Bonus for Very Low-Income Units Pursuant to Government Code, § 65915(v)

Additional % Very Low-Income Units	Additional % Density Bonus

5	20%
6	23.75%
7	27.5%
8	31.25%
9	35%
10	38.75%

(3) Additional Bonus for Moderate-Income Units. If the applicant provides additional moderate-income units beyond those required to achieve the maximum base bonus, the project shall receive the following additional density bonus (calculated on the project's maximum allowable residential density). Moderate-income units used for this subsection may be rental or for-sale:

Table 19.27.030(J.3)
Additional Density Bonus for Moderate-Income Units Pursuant to Government Code, § 65915(v)

Additional % Moderate-Income Units	Additional % Density Bonus
5	20%
6	22.5%
7	25%
8	27.5%
9	30%
10	32.5%
11	35%
12	38.75%
13	42.5%
14	46.25%
15	50%

(4) Total Allowable Bonus. A project that qualifies under this subsection may receive a bonus increase in addition to any increase in density granted by subsections (A) through (I), consistent with Government Code § 65915(v).

(5) Rounding. Fractional units resulting from the computation of the additional bonus shall be rounded up to the next whole number, consistent with subsection (F) of this section.

(K) Commercial Development Bonus.

(1) The City shall grant a commercial developer a "commercial development bonus" if the commercial developer enters into an agreement for partnered housing with an affordable housing developer to continue affordable housing through a joint project or two separate projects, pursuant to Government Code section 65915.7.

(2) Housing shall be constructed on the site of the commercial development or on a site that is all of the following:

(a) Within the boundaries of the local government.

(b) In close proximity to public amenities including schools and employment centers.

(c) Located within one-half mile of a major transit stop.

(3) A commercial development bonus awarded pursuant to this subsection includes:

(a) Up to a 20-percent increase in maximum allowable intensity in the General Plan.

(b) Up to a 20-percent increase in maximum allowable floor area ratio.

(c) Up to a 20-percent increase in maximum height requirements.

(d) Up to a 20-percent reduction in minimum parking requirements.

(e) Use of a limited-use/limited-application elevator for upper floor accessibility.

(f) An exception to a zoning ordinance or other land use regulation

19.27.035 Additional density bonus through donation of land

(A) When an applicant for a tentative subdivision map, parcel map, or other residential development donates land to the city, as provided for in this section, the applicant shall be entitled to a fifteen percent increase above the maximum residential density under the applicable zoning and the land use element of the general plan for the entire development, as follows:

Table 19.27.035

Affordable Housing Land Donation

Percentage Very Low Income	Percentage Density Bonus
10	15
11	16
12	17
13	18
14	19

15	20
16	21
17	22
18	23
19	24
20	25
21	26
22	27
23	28
24	29
25	30
26	21
27	32
28	33
29	34
30	35

(B) The land dedication density bonus shall be in addition to any increase in density mandated by Section 19.27.010(C), up to a maximum combined density increase of thirty-five percent, if an applicant seeks increases required pursuant to both this section and Section 19.27.010(C).

(1) All density calculations resulting in fractional units shall be rounded up to the next whole number.

(2) Nothing in this section shall be construed to enlarge or diminish the authority of the city to require a developer to donate land as a condition of development.

(C) An applicant shall be eligible for an increased density bonus described in this section if all the following conditions are met:

(1) The applicant donates and transfers land no later than the date of approval of the final subdivision map or parcel map or residential development application.

(2) The developable acreage and zoning classification of the transferred land will provide at least ten percent of the residential units in the proposed development to be affordable to very low-income households.

(3) The transferred land is at least one acre or of sufficient size to permit development of at least forty units, has the appropriate general plan designation, is appropriately zoned for development as affordable housing, and is or will be served by adequate public facilities and infrastructure.

(a) The land must have appropriate zoning and development standards to make the development of the affordable units feasible.

(b) No later than the final subdivision map, parcel map, or of the residential development approval date, the transferred land must have all of the permits and approvals, other than building permits, necessary for the development of the very low income housing units on the transferred land, except that the local government may subject the proposed development to subsequent design permit, to the extent authorized by California Government Code Section 65583.2(i), if the design is not reviewed by the city prior to the time of transfer.

(4) The transferred land and the affordable units shall be subject to a deed restriction ensuring continued affordability of the units consistent with Section 19.27.010(E)(1) and (2), which restriction shall be recorded on the property at the time of the transfer.

(5) The land is transferred to the city or to a housing developer approved by the city. The city may require the applicant to identify and transfer the land to such housing developer.

(6) The transferred land must be within the boundary of the proposed development or, if the city agrees, within one-quarter mile of the boundary of the proposed development.

(7) A proposed very low-income unit funding source shall be identified no later than the final subdivision map, parcel map, or residential development application approval date.

19.27.040 Additional density bonus or concession or incentive through provision of housing with a child care facility.

(A) When an applicant proposes to construct a housing development that conforms to the requirements of Section 19.27.010(C) and includes a childcare facility located on the premises of, as part of, or adjacent to, the project, the planning commission or city council shall grant either of the following:

(1) An additional residential square footage density bonus equal to or greater than the child care facility square footage; or

(2) An additional concession or incentive that contributes significantly to the economic feasibility of the childcare facility construction.

(B) The planning commission or city council shall require, as a condition of approving the housing development, that the following occur:

(1) The child care facility must remain in operation as long as or longer than the density bonus units affordable term pursuant to Section 19.27.010(E).

(2) Of the children who attend the child care facility, the children of very low income households, lower income households, or moderate income households must equal a percentage that is equal to or greater than the percentage of dwelling units that are required for very low income households, lower income households, or moderate income households pursuant to Section 19.27.010(C).

(C) Notwithstanding any requirement of this section, the planning commission or city council is not required to provide a density bonus or concession for a childcare facility if it finds, based upon substantial evidence, that the community has adequate childcare facilities.

(D) Density bonus units do not have to be located in the same geographic area of the housing development.

(E) Granting a concession or incentive shall not in and of itself, require a general plan amendment, zoning change, or other discretionary approval.

(F) Section 9.27.040 does not limit or require the city to provide direct financial incentives for housing development, including the provision of publicly owned land, by the city, county, or city and county, or the waiver of fees or dedication requirements.

19.27.045 City's discretion in granting density bonus.

Nothing in this chapter limits a project's eligibility for the additional density bonus authorized by Government Code § 65915(v). Where applicable, a project may receive the additional density bonus pursuant to Section 19.27.030(J) in addition to the maximum base density bonus set forth in Section 19.27.030(A)-(I), provided that all eligibility criteria in state law and this chapter are met.

19.27.050 Parking requirements

(A) An applicant of a development meeting the criteria of Section 19.27.010(C) may request the city not require a vehicular parking ratio, inclusive of handicapped and guest parking, that exceeds the following ratios:

(1) Zero to one bedroom: one on-site parking space per unit.

(2) Two to three bedrooms: one and one-half on-site parking spaces per unit.

(3) Four and more bedrooms: two and one-half parking spaces per unit.

(B) Notwithstanding subsection (A), if a development includes at least twenty percent (20%) lower income units, or at least eleven percent (11%) very low income units, is located within one-half mile of a major transit stop, and there is unobstructed access to the major transit stop from the development, then, upon request, the City shall not impose a vehicular parking ratio, inclusive of parking for persons with a disability and guests, that exceeds one-half spaces per unit. Notwithstanding subsection (A), if a development includes at least forty percent (40%) moderate-income units, is located within one-half mile of a major transit stop, and the residents of the development have unobstructed access to the major transit stop from the development then, upon request, the City shall not impose a vehicular parking ratio, inclusive of parking for persons with a disability and guests, that exceeds one-half spaces per bedroom.

(C) An applicant of a development project that consists solely of rental units affordable lower income households (exclusive of a manager's unit) may apply for a waiver of vehicular parking standards if the project is any of the following:

(1) Located within one-half mile of a major transit stop, and has unobstructed access to the major transit stop;

(2) A for-rent housing development for individuals who are fifty-five (55) years of age or older that complies with Sections 51.2 and 51.3 of the Civil Code, and has either paratransit service, or unobstructed access to a fixed bus route service that is within one-half mile and operates at least eight times per day~~.~~; or

(3) A special needs rental housing development project, as defined in Section 51312 of the Health and Safety Code, or a supportive needs housing development, as defined in Section 50675.14 of the Health and Safety Code.

(E) If the total number of parking spaces required for a development is other than a whole number, the number shall be rounded up to the next whole number. For purposes of this section, a development may provide "on-site parking" through tandem parking or uncovered parking, but not through on-street parking.

(F) An applicant that meets the requirements of Section 19.27.010(C) may request additional parking incentives or concessions beyond those provided in this Section, subject to Section 19.27.020.

(G) Notwithstanding subsections B and C, the city may impose a higher vehicular parking ratio, not to exceed the ratio described in subsection A, based upon substantial evidence found in a parking study prepared at city expense by the city or an independent consultant in the last seven years that includes:

(1) An analysis of parking availability;

(2) Differing levels of transit access;

(3) Walkability access to transit services;

(4) The potential for shared parking;

(5) The effect of parking requirements on the cost of market-rate and subsidized developments; and

(6) The lower rates of car ownership for low- and very low-income individuals, including seniors and special needs individuals.

The city shall make findings, based on a parking study completed in conformity with this section, supporting the need for the higher parking ratio.

19.27.060 Denial to grant a requested density bonus, incentive, or concession.

(A) The applicant may initiate judicial proceedings if the city refuses to grant a requested density bonus, incentive, or concession. If a court finds that the refusal to grant a requested density bonus, incentive, or concession is in violation of this section, the court shall award the plaintiff reasonable attorney's fees and costs of suit. Nothing in this subsection shall be interpreted to require a local government to grant an incentive or concession that has a specific, adverse impact, as defined in paragraph (2) of subdivision (d) of Section 65589.5 of the Government Code, upon public health or safety, and for which there is no feasible method to satisfactorily mitigate or avoid the specific adverse impact. Nothing in this subsection shall be interpreted to require a local government to grant an incentive or concession that would have an adverse impact on any real property that is listed in the California Register of Historical Resources.

(B) The city shall bear the burden of proof for the denial of a requested concession or incentive.

EXHIBIT B

Chapter 19.28 INCLUSIONARY HOUSING REQUIREMENTS

19.28.010 Purpose.

The purpose of this chapter is to implement the inclusionary housing program set forth in the housing element of the American Canyon general plan.

(Ord. 2001-02 § 1, 2001; Ord. 2016-05 § 1, 2016; Ord. 2019-10 § 1, 2019.)

19.28.020 Definitions.

Unless the context clearly requires otherwise, the definitions in this chapter shall have the following meanings:

"Above moderate-income households" are those households with income of more than one hundred twenty percent of area median income for Napa County, as published by the state of California Department of Housing and Community Development, and its successors.

"Affordable housing nexus fee" is an impact fee to fund affordable housing demand created by new market-rate housing and new nonresidential development, in an amount set by the city council by resolution.

"Apartment" is a multifamily development residential project that creates residential dwelling units that are rented or leased.

"Financially infeasible" is a residential project, once all costs for development are established, (i.e. land acquisition, entitlements, site development fees, and construction costs), the developer (and/or their creditors) would not achieve an Internal Rate of Return (IRR) of at least six percent.

"Gross square feet" see ACMC Section 19.04.030.

"Inclusionary units" are those that are required to be provided at affordable rents or sales prices to specified households.

"Lower income households" are those households with income of no more than eighty percent of the area median income for Napa County, adjusted for household size, as published by the state of California Department of Housing and Community Development, and its successors.

"Market rate units" means dwelling units in a residential project which are not affordable units or target units.

"Maximum residential density" means the maximum number of dwelling units permitted in a residential project by the city's zoning ordinance and by the land use element of the general plan on the date that the application for the residential project is deemed complete, excluding any density bonus or other units required to be excluded from the maximum residential density calculation by applicable State law. If the

maximum density allowed by the zoning ordinance is inconsistent with the density allowed by the land use element of the general plan, the land use element density shall prevail or applicable State law.

"Median income" means the median income, adjusted for family size, applicable to Napa County as published annually pursuant to Title 25 of the California Code of Regulations, Section 6932 (or its successor provision) by the California Department of Housing and Community Development.

"Moderate income households" are those households whose income does not exceed the moderate income limits applicable to Napa County as published annually pursuant to Title 25 of the California Code of Regulations, Section 6932 (or its successor provision) by the California Department of Housing and Community Development.

"Nonresidential development" means any development in the city for which a discretionary permit or building permit is required, other than those developments involving solely residential projects, that includes an addition, the new construction of gross square feet of nonresidential space, the conversion of a residential use to a nonresidential use, or the conversion of one nonresidential use to another nonresidential use.

"Residential ownership project" means any residential project that may legally advertise, sell, or otherwise transfer dwelling units for sale to an individual homeowner. A residential ownership project also includes the conversion of rental apartments to condominiums.

"Residential project" means any development for which one or more building permits may be issued for one or more new dwelling units, conversion of nonresidential uses to dwelling units, or a condominium conversion. Residential projects include both residential ownership projects and residential rental projects.

"Residential rental unit" means any residential unit that is rented to its resident(s).

"Senior citizen residential project" means a senior citizen housing development with at least thirty-five dwelling units as defined in Civil Code Section 51.3, or a mobilehome park that limits residency based on age requirements for older persons pursuant to Civil Code Sections 798.76 or 799.5.

"Stacked Flat" means a multi-family residential building with single-level dwelling units, stacked on top of each other in a multi-story building.

"Target unit" means a deed-restricted dwelling unit within a residential project that is reserved for sale or rent at an affordable rent or affordable sales price to very low, low, or moderate income households.

"Very low income households" are those households with income of no more than fifty percent of the area median income for Napa County, adjusted for household size, as published by the state of California Department of Housing and Community Development, and its successors.

(Ord. 2001-02 § 1, 2001; Ord. 2006-08 § 1, 2006; Ord. 2006-09 § 1, 2006; Ord. 2016-05 § 1, 2016; Ord. 2019-10 § 1, 2019.)

19.28.030 Applicability.

(A) The provisions of this chapter shall apply to:

(1) Residential projects containing five or more residential parcels or units whose initial sales prices or rents will be affordable (as defined in Chapter 19.04, Definitions) to above moderate-income households.

(2) Residential rental projects containing five or more rental dwelling units.

(3) Nonresidential projects.

(B) These provisions shall not apply to:

(1) Any subdivision for which the final or parcel map was recorded, or any residential project subject to discretionary approval by the city for which a building permit has been issued by the city prior to the effective date of this chapter, unless approval or conditional approval of the subdivision or project was expressly conditioned upon participation in an inclusionary program such as that established by this chapter, or such participation was expressly required as an environmental mitigation measure for the subdivision.

(2) New residential development that is deed restricted to be affordable to lower income households.

(3) New nonresidential development with a bona fide tax-exempt status.

(Ord. 2001-02 § 1, 2001; Ord. 2006-08 § 1, 2006; Ord. 2006-09 § 1, 2006; Ord. 2016-05 § 1, 2016; Ord. 2019-10 § 1, 2019.)

19.28.040 Inclusionary requirements.

(A) Required Number and Type of Inclusionary Units.

(1) Residential Ownership projects subject to the provisions of this chapter shall provide a number of inclusionary units equal to at least ten percent of applicable project units (per this chapter) at prices or rents affordable to lower-income households, unless one of the alternative actions set forth in this chapter is approved. Such inclusionary units may be either ownership units or rental units.

(2) Residential Rental projects subject to the provisions of this chapter shall provide a number of inclusionary units equal to at least five percent of applicable project units (per this chapter) at prices or rents affordable to very low-income households, five percent affordable to low-income households, and five percent to moderate income households unless one of the alternative actions set forth in this chapter is approved. The inclusionary units shall be rental units.

(3) In determining the number of inclusionary units to be provided, any decimal fraction of 0.3 or more shall be rounded up to the nearest whole number, and any decimal fraction of less than 0.3 shall be rounded down to the nearest whole number.

(4) Where an even number of inclusionary units are required of a residential rental housing project, a larger number of units affordable to very low-income households shall be provided (e.g., if the inclusionary requirement equals four units, two shall be affordable to very low-income households and

one shall be affordable to a lower-income household and one shall be affordable to a moderate income household). If only one inclusionary unit is required, such unit must be affordable to a very low-income household.

(B) Development Standards for Target Units.

(1) Inclusionary units shall be constructed concurrently with market rate units unless both the city and the developer/applicant agree within the housing agreement to an alternative schedule for development.

(2) Inclusionary units shall be evenly distributed throughout the project, except that the decision-making body may waive this requirement if it finds that such distribution is infeasible for one or more of the following reasons:

(a) Significant topographic or other constraints exist rendering such distribution infeasible.

(b) Substantially improved site design will result from such waiver.

(c) Substantially improved building design and an improved unit amenity level will result from such waiver.

(d) Significant economic hardships will result from such distribution that does not apply to other projects in the city.

(e) Significant economic hardships will result from such distribution for the developer of the inclusionary units receiving financial assistance from federal, state, or local governmental agencies if such waiver is not granted.

(3) The number of bedrooms of the inclusionary units shall be equivalent to the bedroom mix of the market rate units of the housing development; except that the developer may include a higher proportion of inclusionary units with more bedrooms.

(4) The design and appearance of the inclusionary units shall be consistent with the design permit for the housing development.

(5) The applicant may reduce the size or interior amenities of the inclusionary units.

(6) Inclusionary units shall comply with all applicable development standards, except those which may be modified as provided by this chapter.

(C) Continued Affordability of Ownership Units. Inclusionary units shall remain restricted and affordable to the targeted household(s) for a period of at least fifty-five years, or a longer period of time if required by the construction or mortgage financing assistance program, mortgage insurance program, or rental subsidy program. Covenants evidencing these restrictions shall be recorded against the property.

(D) Continued Affordability of Rental Units. Inclusionary units shall remain restricted and affordable to the targeted household(s) for a period of at least fifty-five years, or a longer period of time if required by the construction or mortgage financing assistance program, mortgage insurance program, or rental subsidy program. Covenants evidencing these restrictions shall be recorded against the property.

(E) Determination of Affordable Rents and Sales Prices. In determining the maximum affordable rent or affordable sales price of inclusionary units, the following household and unit size assumptions shall be used, unless the project is subject to different assumptions imposed by other governmental regulations:

SRO (residential hotel) unit	75% of 1 person
0 bedroom (studio)	1 person
1 bedroom	2 person
2 bedroom	3 person
3 bedroom	4 person
4 bedroom	6 person

(F) Housing Agreement. A housing agreement consistent with this chapter is required for a housing project (e.g., tract maps, parcel maps, design permits, planned development, or conditional use permits) that provides inclusionary units.

(G) If a project provides more inclusionary units than required under this chapter, the project owner may request a one-time inclusionary unit credit, subject to applicable law and to approval of the city council. This credit may be used to satisfy the inclusionary unit requirement of another project. The applicant shall demonstrate that the project receiving the inclusionary unit transfer qualifies for the credit under the current inclusionary ordinance and all applicable state laws.

(Ord. 2001-02 § 1, 2001; Ord. 2006-08 § 1, 2006; Ord. 2006-09 § 1, 2006; Ord. 2016-05 § 1, 2016; Ord. 2019-10 § 1, 2019.)

19.28.050 Inclusionary alternatives.

(A) It is the intent of these provisions to require that inclusionary units be provided within each project so they are dispersed within the community.

(B) The decision-making body may approve one of the following alternatives to providing inclusionary units on-site if the applicant demonstrates either (a) that on-site inclusionary units are financially infeasible due to project size, location or site characteristics, or (b) that the proposed alternative would provide affordable housing opportunities for lower-income households to an equal or greater extent:

(1) Provide some or all the required inclusionary units at an approved off-site location.

(2) The applicant may dedicate suitable land to the city, or to another entity the city approves, for the construction of the inclusionary units. The city evaluates the dedication based on the site's suitability, such as location, size, zoning, expected construction timing and other relevant factors. The city also compares the dedicated land's fair market value to the in-lieu contribution that would otherwise apply under this chapter.

(3) Acquisition and rehabilitation of existing rental units.

(a) The term of existing rental unit affordability shall be extended fifty-five years longer than any existing affordability term.

(b) The existing units shall be affordable to the same income groups as the on-site inclusionary units that they replace.

(4) Provide an affordability term longer than fifty-five years for fewer than fifteen percent of the units.

(5) Provide fewer than fifteen percent inclusionary units, but increase the number of bedrooms in the inclusionary units that are provided.

(6) Provide fewer than fifteen percent inclusionary units, but increase the percentage of lower-income units.

(7) Provide greater than fifteen percent inclusionary overall, but a smaller percentage of lower-income units.

(8) Extend the affordability terms of existing inclusionary units.

(9) Any combination of the above alternatives.

(10) Other alternatives that achieve inclusionary housing not listed above.

(11) As a last resort, the developer may be allowed to pay in-lieu nexus fees, in an amount set by the affordable housing nexus fee adopted by resolution by the city council.

(a) The in-lieu contribution shall be paid to the city at the issuance of the building permit for each unit.

(b) Such contribution shall be deposited in the city housing fund and can only be used to provide housing affordable to very low and low-income households.

(Ord. 2001-02 § 1, 2001; Ord. 2006-08 § 1, 2006; Ord. 2006-09 § 1, 2006; Ord. 2009-09 § 3, 2009; Ord. 2016-05 § 1, 2016; Ord. 2019-10 § 1, 2019.)

19.28.060 City assistance.

The following development concessions may be approved by the decision-making body if it finds that evidence presented by the applicant shows that on-site inclusionary units are financially infeasible due to project size, location or site characteristics, or that the alternative would further housing opportunities for lower-income households to an equal or greater extent. Possible assistance includes the following:

(A) A reduction of site development standards or a modification of zoning code or architectural design requirements which exceed the minimum building standards provided in Part 2.5 (commencing with Section 18901) of Division 13 of the California Health and Safety Code for the inclusionary units. These may include, but are not limited to, one or more of the following:

(1) Increase the allowable density limits of the zoning district (i.e., a density bonus);

(2) Reduced minimum lot sizes and/or dimensions;

(3) Reduced minimum lot setbacks;

(4) Reduced minimum outdoor and/or private outdoor living area;

(5) Increased maximum lot coverage;

(6) Increased maximum building height and/or stories;

(7) Reduced on-site parking standards, including the number or size of spaces and garage requirements;

(8) Reduced minimum building separation requirements;

(9) Reduced street standards, e.g., reduced minimum street widths;

(10) Waived, reduced, or deferred planning, plan check, building permit, and/or development impact fees (e.g., capital facilities, park, or traffic fees); or

(11) Any development standard concession not listed above.

(Ord. 2001-02 § 1, 2001; Ord. 2006-08 § 1, 2006; Ord. 2006-09 § 1, 2006; Ord. 2016-05 § 1, 2016; Ord. 2019-10 § 1, 2019.)

19.28.070 Application procedures.

In addition to the application contents required for any associated permits or approvals, an applicant proposing to include inclusionary units in a project shall provide the following information:

(A) The number of proposed inclusionary units and an indication of the target households;

(B) Proposed sales prices or rents for the inclusionary units;

(C) The location, unit size (square feet), and number of bedrooms of inclusionary units;

(D) A description of any proposed differences between the inclusionary units and other project units in terms of construction, appearance, or amenities;

(E) A schedule for completion and occupancy of the inclusionary units compared to a schedule for completion and occupancy of market rate units in the subject development; and

(F) An offer to reserve inclusionary units for target households for at least fifty-five years when proposing ownership units and fifty-five years when proposing rental units.

(Ord. 2001-02 § 1, 2001; Ord. 2006-08 § 1, 2006; Ord. 2006-09 § 1, 2006; Ord. 2016-05 § 1, 2016; Ord. 2019-10 § 1, 2019.)

19.28.080 Housing agreement.

(A) Where required by this chapter, applicants/developers shall draft and agree to enter into a housing agreement with the city. The terms of the draft agreement shall be reviewed and revised as appropriate by the community development director, who shall formulate a recommendation to the decision-making body for final approval.

(B) The housing agreement shall include at least the following:

(1) The number of inclusionary units, bedroom counts for the inclusionary units and their target households;

(2) The standards for determining the affordable rent or affordable sales price and housing cost for the inclusionary units;

(3) The location, unit size (square feet), and number of bedrooms of the inclusionary units;

(4) The tenure of use restrictions for the inclusionary units;

(5) A schedule for completion and occupancy of the inclusionary units and market rate units;

(6) A description of remedies for breach of the agreement by either party (the city may identify tenants or qualified purchasers as third party beneficiaries under the agreement);

(7) Other provisions to ensure implementation and compliance with this chapter.

(C) In the case of for-sale inclusionary units in a residential ownership project, the housing agreement shall include the following conditions governing the sale and use of inclusionary units during the applicable use restriction period:

(1) The inclusionary units shall be sold to and owner-occupied by eligible lower-income households at an affordable sales price and housing cost.

(2) The initial and subsequent purchasers of an inclusionary unit shall execute an instrument or agreement approved by the city restricting the sale of the inclusionary unit in accordance with this chapter during the applicable use restriction period. Such instrument or agreement shall be recorded against the parcel containing the inclusionary unit and shall contain such provisions as the city may require to ensure continued compliance with this chapter.

(3) The city shall establish maximum resale prices for inclusionary units during the applicable use restriction period, taking into consideration such factors as cost-of-living increases, any improvements made to the unit, and customary closing costs.

(4) The owner of an inclusionary unit who wishes to sell the unit shall provide the first right of refusal to purchase the unit to the city and send written notice to the city of their intent to sell not less than sixty calendar days prior to the intended date of sale of the unit. Upon receipt of the owner's notice, the city shall have sixty calendar days to purchase the unit or to assign its right of refusal.

(5) The owner shall share with the city any amount received by the owner as a result of the first sale following expiration of the applicable use restriction period that is above the maximum resale price. The city shall deposit its share of any such proceeds in its housing fund.

(D) In the case of rental inclusionary units in a residential rental project, the housing agreement shall provide for the following conditions governing the use of inclusionary units during the use restriction period:

(1) The rules and procedures for qualifying tenants, establishing affordable rent, filling vacancies, and maintaining inclusionary units for qualified tenants;

(2) Provisions requiring owners of the residential rental project to verify tenant incomes on an annual basis and maintain books and records to demonstrate compliance with this chapter;

(3) Provisions requiring owners of the residential rental project to submit an annual report to the city which includes the name, address, and income of each person occupying the inclusionary units, and which identifies the bedroom size and monthly rent or cost of each inclusionary unit.

(E) Following execution of the agreement by all parties, the completed housing agreement, or memorandum thereof, shall be recorded and the conditions therefore filed and recorded on the parcel or parcels designated for the construction of inclusionary units. The approval and recordation shall take place prior to final map approval, or, where a map is not being processed, prior to issuance of building permits for such parcels or units. The housing agreement shall be binding to all future owners and successors in interest.

(Ord. 2001-02 § 1, 2001; Ord. 2006-08 § 1, 2006; Ord. 2006-09 § 1, 2006; Ord. 2016-05 § 1, 2016; Ord. 2019-10 § 1, 2019.)

19.28.090 Nonresidential inclusionary requirements.

Nonresidential projects subject to the provisions of this chapter shall provide the applicable affordable housing nexus fee for each square foot of new construction. The affordable housing nexus fee shall be adopted by resolution by the city council.

(Ord. 2016-05 § 1, 2016; Ord. 2019-10 § 1, 2019.)

19.28.100 Waiver.

Notwithstanding any other provision of this chapter, the requirements of this chapter shall be waived, adjusted or reduced if the applicant shows that there is no reasonable relationship between the impact of a proposed residential project and the requirements of this chapter, or that applying the requirements of this chapter would take property in violation of the United States or California Constitution. To receive a waiver, adjustment or reduction under this section, the applicant must make a showing under this section when applying for a first approval for the residential project, and/or as part of any appeal which the city provides as part of the process for the first approval.

EXHIBIT C

Chapter 19.39 ACCESSORY DWELLING UNITS

19.39.010 Purpose of the chapter

The purpose of this chapter is to increase the supply of smaller units and rental housing units by allowing accessory dwelling units on lots containing a single-family dwelling in various residential districts as shown on Table 19.10.040, and to establish design and development standards for accessory dwelling units to ensure that they are compatible with existing neighborhoods and consistent with the general plan and its elements. Accessory dwelling units contribute needed housing to the community's housing stock.

(Ord. No. 2024-04 Section 6; Ord. 2017-05 § 2, 2017; Ord. 2020-04 § 1, 2020.)

19.39.020 Applicability

This chapter applies to all residentially zoned lots that contain a single-family or multifamily dwelling. An accessory dwelling unit (ADU) does not count toward the maximum allowed density of the lot on which it is located. An ADU is considered a residential use and is consistent with the lot's General Plan designation and zoning.

(Ord. No. 2024-04 Section 6; Ord. 2017-05 § 2, 2017; Ord. 2020-04 § 1, 2020.)

19.39.030 General plan consistency

An accessory dwelling unit (ADU) that complies with this chapter is considered an accessory use or accessory structure. An ADU does not count toward the maximum residential density allowed on the lot where it is located. An ADU is considered a residential use that is consistent with the lot's General Plan and zoning designation. ADUs also may not be counted or used when applying any local ordinance, policy, or program that limits residential growth, as provided by Government Code Section 65852.2(a)(8).

(Ord. No. 2024-04 Section 6; Ord. 2017-05 § 2, 2017; Ord. 2020-04 § 1, 2020.)

19.39.040 Definitions

"Accessory dwelling unit" means any of the following:

(1) One dwelling unit attached to, within, or detached from the proposed or existing primary dwelling unit that is on the same parcel in areas zoned to allow single-family and/or multifamily dwelling residential use, and provides permanent and independent provisions for living, sleeping, eating, cooking, and sanitation for one or more persons.

(2) An efficiency unit, as defined in Section 17958.1 of the Health and Safety Code.

(3) A manufactured home, as defined in Section 18007 of the Health and Safety Code.

(4) Multiple accessory dwelling units up to 25 percent of the existing multifamily dwelling units within portions of existing multifamily dwelling structures that are not used as livable space, including, but not

limited to, storage rooms, boiler rooms, passageways, attics, basements, or garages, if each unit complies with state building standards for dwellings, as defined in Government Code section 65852.2, subdivision (e)(1)(C).

"Junior accessory dwelling unit" means a unit that is no more than 500 square feet of interior livable space that is contained entirely within the existing footprint of a single-family residence. A junior accessory dwelling unit may include separate sanitation facilities, or may share sanitation facilities with the existing structure.

"Primary residence" means the residential dwelling that existed on the parcel before or constructed concurrent with the accessory dwelling unit.

(Ord. No. 2024-04 Section 6; Ord. 2017-05 § 2, 2017; Ord. 2020-04 § 1, 2020.)

19.39.050 Development standards—Generally

(A) Each accessory dwelling unit requires approval of a building permit.

(B) The applicant of each accessory dwelling unit building permit application shall identify the anticipated rent and household size of the new accessory dwelling unit.

(C) The number of accessory dwelling units and junior accessory dwelling units permitted on a lot with an existing or proposed single-family dwelling shall be consistent with Government Code Section 66323 and this Chapter.

(D) A multi-family or single-family primary residence dwelling must exist on the parcel before the accessory dwelling unit is built or it shall be built concurrently with the accessory dwelling unit.

(E) Accessory dwelling units qualifying under Government Code Section 66323 shall be subject only to the development standards expressly authorized by Government Code Sections 66321 and 66323 and shall not be subject to any other local development or design standards.

(F) Accessory Dwelling Living Area Standard.

(1) A Detached accessory dwelling unit shall not exceed one 1,200 square feet, unless:

(a) On a single-family lot, the detached ADU converts a previously-permitted accessory structure which is greater than 1,200 square feet. In this circumstance, the ADU may equal the square footage of the existing accessory structure.

(b) On a lot with a multifamily primary dwelling, the detached ADU is not subject to a square foot limit (Gov. Code, § 65852.2, subds. (e)(1)(A), (C), and (D)).

(2) Attached ADUs shall not exceed 1,200 square feet, except this limitation shall not apply to conversion ADUs under Government Code 66323(a)(1) or (a)(3).

(3) A Junior accessory dwelling unit shall not exceed 500 square feet.

(G) Fire Sprinkler Requirements.

(1) Accessory dwelling units (ADUs) must comply with all applicable state fire safety requirements and locally adopted building and fire codes in Title 16. These requirements may include, but are not limited to, adequate water supply and fire department access.

(2) Accessory dwelling units (ADUs) are not required to have fire sprinklers unless fire sprinklers are also required in the primary dwelling. The following standards apply to this requirement:

(a) When the primary residence has fire sprinklers, the accessory dwelling unit or junior accessory dwelling unit shall be constructed with fire sprinklers.

(b) When the primary residence does not have fire sprinklers, the accessory dwelling unit or junior accessory dwelling unit do not require fire sprinklers, and the construction of an accessory dwelling unit or junior accessory dwelling unit shall not trigger a requirement to retrofit the primary dwelling with fire sprinklers.

(H) The City shall not require recordation of a deed restriction except where authorized by state law. Owner-occupancy shall not be required for ADUs. Owner occupancy of the primary home is required only when there is no separate sanitation facilities for the JADU.

(4) When the applicant is a qualified nonprofit housing organization, a deed restriction is not required.

(I) Impact Fees.

(1) Accessory dwelling units less than 750 square feet or less of interior livable space and all junior accessory dwelling units with 500 square feet or less of interior livable space shall be exempt from all city impact fees.

(2) Impact fees for accessory dwelling units equal to or greater than 750 square feet are exempt from water and sewer capacity fees. All remaining impact fees shall be charged proportionately in relation to the square footage of the primary dwelling unit.

(J) Accessory Dwelling Units on Multifamily Dwellings. The building division shall review and approve ministerially accessory dwelling units under the following conditions.

(1) Non-habitable area within an existing multifamily dwelling structure, including, but not limited to: storage rooms, boiler rooms, passageways, attics, basements or garages, may be converted to one or more accessory dwelling units if each accessory dwelling unit complies with state dwelling unit building standards.

(2) An existing multifamily dwelling shall be permitted to accommodate additional accessory dwelling units in an amount up to twenty-five percent of the existing multifamily dwelling units.

(3) Multifamily lots may include detached ADUs consistent with Government Code Section 66323(a)(4), up to eight units not exceeding existing unit count.

(K) CC&Rs. As defined in California Civil Code Section 4751 or any successor statute, any covenant, condition, and restriction (CC&R) or contained in any deed, contract, security instrument, or other instrument affecting the transfer or sale of any interest in a planned development, and any provision of a governing document, that effectively prohibits or unreasonably restricts the construction or use of an accessory dwelling unit or junior accessory dwelling unit on a lot zoned for single-family residential use that meets the above-described minimum standards (subsections F and G) established for those units shall be void and unenforceable. Reasonable restrictions include restrictions that do not unreasonably increase the cost to construct, effectively prohibit the construction of, or extinguish the ability to otherwise construct, an accessory dwelling unit or junior accessory dwelling unit. Reasonable restrictions shall not include any fee, charge, or other financial requirement related to the construction or use of an accessory dwelling unit or junior accessory dwelling unit.

(L) ADUs that qualify under Government Code Section 66323 shall be approved ministerially and are not subject to local development or design standards, except as specifically allowed by state law.
(Ord. No. 2024-04 Section 6; Ord. 2017-05 § 2, 2017; Ord. 2020-04 § 1, 2020.)

19.39.060 Junior accessory dwelling unit standards

(A) Each junior accessory dwelling unit shall comply with the following building standards.

(1) The dwelling must have its own exterior entrance.

(2) The kitchen must include a cooking facility with appliances and includes a food preparation counter and storage cabinets.

(3) The bathroom may be included in the unit or shared with the primary residence.

(4) Junior accessory dwelling units are exempt from the building code wall separation requirements with the primary residence.

(Ord. No. 2024-04 Section 6; Ord. 2017-05 § 2, 2017; Ord. 2020-04 § 1, 2020.)

19.39.070 Parking standards

Parking shall not be required for ADUs qualifying under Government Code Section 66323.

(Ord. No. 2024-04 Section 6; Ord. 2017-05 § 2, 2017; Ord. 2020-04 § 1, 2020.)

19.39.080 Operational standards

(A) The accessory dwelling unit may not be sold separately from the primary residence except as authorized by Government Code Section 66341.

(B) Minimum rental term for an accessory dwelling unit or junior accessory dwelling unit is thirty consecutive days.

(Ord. No. 2024-04 Section 6; Ord. 2017-05 § 2, 2017; Ord. 2020-04 § 1, 2020.)

19.39.090 Design standards

Accessory dwelling units shall comply with the following standards.

(A) An accessory dwelling unit connected to an onsite water treatment system requires a percolation test completed within the last five years, or, if the percolation test has been recertified, within the last ten years.

(Ord. No. 2024-04 Section 6; Ord. 2017-05 § 2, 2017; Ord. 2020-04 § 1, 2020.)

19.39.100 Review and approval process

Permits for accessory dwelling units and junior accessory dwelling units shall be reviewed ministerially through the building division in accordance to (a) through (d).

(A) The building division shall 'approve or deny' the application to create an accessory dwelling unit or junior accessory dwelling unit within sixty days from the date the building division receives a completed application if there is an existing single-family or multifamily dwelling on the lot.

(B) If the permit application to create an accessory dwelling unit or junior accessory dwelling unit is submitted concurrently with a permit application to create a new single-family dwelling on the lot, the building division may delay acting on the accessory dwelling unit or junior accessory dwelling unit permit application until the building division acts on the new single-family dwelling permit application, but the application to create the accessory dwelling unit or junior accessory dwelling unit shall be considered ministerial without discretionary review or a hearing. If the applicant requests a delay, the sixty-day time period shall be tolled for the period of the delay.

(C) Within 15 business days of receipt of an application for an accessory dwelling unit or junior accessory dwelling unit, the Building Division shall determine whether the application is complete and shall provide written notice to the applicant.

(D). If the application is determined to be incomplete, the written notice shall identify all deficiencies and describe the additional information required to complete the application. The applicant may cure the deficiencies in accordance with state law.

(E). The City shall provide a process for an applicant to appeal a determination that an application is incomplete or denied. A final written determination on appeal shall be issued no later than 60 business days following receipt of the written appeal.

(Ord. No. 2024-04 Section 6; Ord. 2020-04 § 1, 2020.)

19.39.110 Code enforcement

For accessory dwelling units built before January 1, 2020, the property owner may request delayed enforcement of building standards for five years pursuant to Health and Safety Code section 17980.12.

(A) There shall be no delays granted after January 1, 2030.

(B) There shall be no delays granted if the delay of the correction will cause a violation needed to protect health and safety.

(C) A permit for an accessory dwelling unit or junior accessory dwelling unit constructed prior to January 1, 2020 shall not be denied solely due to building code violations unless the City makes a written finding that correction of the violation is necessary to comply with conditions that would otherwise deem the structure substandard.

19.39.120 State Law Preemption.

If any provision of this Chapter is found to be inconsistent with state accessory dwelling unit or junior accessory dwelling unit law, state law shall control. Failure to timely submit ordinance amendments to the California Department of Housing and Community Development shall result in the City applying only state standards, as required by law.

(Ord. No. 2024-04 Section 6; Ord. 2020-04 § 1, 2020.)

CITY COUNCIL AGENDA
SEPTEMBER 15, 2026

STAFF REPORT
CONSENT
ITEM NUMBER: 9.

TITLE

Open Gov Budgeting, Financial Reporting, and Transparency Platform Software Agreement

RECOMMENDATION

Adopt a Resolution to enter into an agreement with OpenGov for budgeting and transparency software solution.

CONTACT

Jemelyn Cruz, Finance Director

BACKGROUND & ANALYSIS

The City has utilized OpenGov's budgeting and transparency software for the past five years and the current contract is expiring in September. Prior to implementing OpenGov, the Finance Department relied heavily on complex spreadsheets to develop budgets and perform financial analyses for City operations. This approach limited accessibility and transparency, as staff and the public depended on the Finance Department to generate reports and provide updates regarding the City's financial status and operational performance.

The adoption of OpenGov''s budgeting and transparency solution has significantly enhanced transparency and accessibility for the public, City Council, and staff. Through OpenGov's transparency platform, users have access to periodic external reporting and internal financial data. The platform also includes customizable management dashboards that support operational analysis, funding assessments, strategic planning, and informed resource allocation decisions.

OpenGov's budgeting module has improved efficiencies for both departmental users and Finance staff by streamlining budget development processes. The system allows for detailed line-item descriptions and supporting information that help identify existing contractual obligations and document new funding requests. In addition, the platform supports the development of Capital Improvement Plans (CIPs), integrates capital planning into the annual budget document, and facilitates multi-year financial forecasting. Overall, the implementation of OpenGov has reduced the staff time required to prepare the budget document, managing workforce budgeting, and maintain position control, resulting in a more efficient and transparent budgeting process.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Organizational Effectiveness: "Deliver exemplary government services."

FISCAL IMPACT

The cost to continue the OpenGov software subscription is $44,460.15 in FY 2026-27, $46,683.16 for FY 2027-28, and $49,017.31 for FY 2028-29. Sufficient funding is included in the FY 2026-27 Budget withing the Information Technology Internal Service Fund (Fund 653). Funding for future annual subscription costs will be incorporated into subsequent budget cycles.

ENVIRONMENTAL REVIEW

Not applicable.

COMMUNICATION

Level 0: No Further Public Communication Needed

ATTACHMENTS:

1. Resolution OpenGov Budgeting
Exhibit A - OpenGov Three-Year Extension
Exhibit B - OpenGov Master Services Agreement

RESOLUTION NO. 2026-

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON APPROVING A THREE-YEAR AGREEMENT WITH OPENGOV, INC. FOR BUDGETING AND TRANSPARENCY SOFTWARE SERVICES AND AUTHORIZING THE CITY MANAGER TO EXECUTE THE AGREEMENT

WHEREAS, the City has utilized OpenGov Inc.'s budgeting and transparency software platform for the past five years to support budget development, financial reporting, operational analysis, and public transparency; and

WHEREAS, the OpenGov platform provides real-time financial reporting, budget development tools, capital improvement planning capabilities, and multi-year forecasting functionality that enhance operational efficiency, transparency and strategic planning; and

WHEREAS, the budgeting and transparency platform has improved access to financial information for the public, City Council, and City staff while reducing the time required to prepare the annual budget, workforce budget, and position control processes; and

WHEREAS, the proposed agreement with OpenGov, Inc. will continue these software services for a three-year term at a cost of $44,460.15 in Fiscal Year 2026-27, $46,683.16 in Fiscal Year 2027-28, and $49,017.31 in Fiscal Year 2028-29, for a total agreement amount of $140,160.62; and

WHEREAS, sufficient funding for Fiscal Year 2026-27 is included in the adopted budget of the Information Technology Internal Service Fund (Fund 653), and funding for subsequent years will be included in future budget appropriations; and

WHEREAS, the action authorized by this Resolution is not a "project" under the California Environmental Quality Act pursuant to CEQA Guidelines section 15378(b), because it consists of organizational, administrative, and fiscal activities that will not result in a direct or reasonably foreseeable indirect physical change in the environment.

NOW, THEREFORE, BE IT RESOLVED that the City Council approves the three-year agreement with OpenGov, Inc. for budgeting and transparency software services in a total amount not to exceed $140,160.62.

BE IT FURTHER RESOLVED that the City Council authorizes the City Manager to execute the agreement and any related documents necessary to implement the agreement.

PASSED, APPROVED and **ADOPTED** at a regularly scheduled meeting of the City Council of the City of American Canyon held on the 15th day of September, 2026 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Pierre Washington, Mayor

ATTEST:

_____
Taresa Geilfuss, CMC, City Clerk

APPROVE AS TO FORM:

_____
Matthew T. Summers, City Attorney

OpenGov

OpenGov Inc.
660 3rd Street, Suite 100
San Francisco, CA 94107
United States

Order Form Number:	Q-19135	**Prepared By:**	Kate Courter
Created On:	08/07/2026	**Email:**	kcourter@opengov.com
Order Form Expiration:	09/07/2026	**Contract Term:**	36 Months
Subscription Start Date:	09/08/2026		
Subscription End Date:	09/07/2029		

Customer Information:

Customer:	City of American Canyon, CA	**Contact Name:**	Jemelyn Cruz
Bill To/Ship To:	4381 Broadway Street American Canyon, California 94503 United States	**Email:** **Phone:**	jcruz@americancanyon.gov 7076474365

Order Details:

Billing Frequency: Prepaid

Payment Terms: Net 30 Days

SOFTWARE SERVICES:

Product Name	Start Date	End Date	Annual Fee
Budgeting & Planning	09/08/2026	09/07/2027	$37,284.28
Premium Support	09/08/2026	09/07/2027	$7,175.87
Budgeting & Planning	09/08/2027	09/07/2028	$39,148.50
Premium Support	09/08/2027	09/07/2028	$7,534.66
Budgeting & Planning	09/08/2028	09/07/2029	$41,105.91
Premium Support	09/08/2028	09/07/2029	$7,911.40

Customer Billing/Service Periods:

Period: **Total:**

09/08/2026	$44,460.15
09/08/2027	$46,683.16
09/08/2028	$49,017.31

Order Form Legal Terms:

This Order Form incorporates the OpenGov Master Services Agreement ("MSA") attached here or available at https://opengov.com/terms-of-service/master-services-agreement/. The "Agreement" between OpenGov and the entity identified above ("Customer") consists of the Order Form, MSA, and, if Professional Services are purchased, the Statement of Work. Unless otherwise specified above, fees for the Software Services and Professional Services shall be due and payable, in advance, 30 days from receipt of the invoice. By signing this Agreement, Customer acknowledges that it has been reviewed, and agrees to be legally bound by the Agreement. Each party's acceptance of this Agreement is conditional upon the other's acceptance of the Agreement to the exclusion of all other terms.

City of American Canyon, CA:

Signature:

_____

Name:

_____

Title:

_____

Date:

_____

OpenGov, Inc.

Signature:

_____

Name:

_____

Title:

_____

Date:

_____

OpenGov Master Services Agreement

Last Modified: 5/5/2025

View Terms of Service

The parties to this Master Services Agreement (this "Agreement") are OpenGov, Inc., a Delaware corporation ("OpenGov"), and the party procuring OpenGov's products and services ("Customer"). Each Customer will execute an Order Form, which becomes binding when the parties sign it (the "Effective Date") and sets forth the terms and conditions under which OpenGov will provide its products and services to Customer.

1.Definitions

1.1.

"Customer Data" means the data that is provided by Customer to OpenGov pursuant to this Agreement (for example, by email or through Customer's software systems of record), including any data transmitted through the Software Services.

1.2.

"Documentation" means any written, electronic, or online materials produced by OpenGov, and made available to Customer in connection with the Software Services, including user guides, training materials, FAQs, and technical support content, but excluding Product Documentation.

1.3.

"Intellectual Property Rights" means all past, present, and future intellectual property rights including those associated with works of authorship, copyrights, moral rights, trademarks, trade names, trade secrets, patent rights, and any other proprietary rights in intellectual property of every kind and nature.

1.4.

"Order Form" means the document(s) separately executed by the parties or attached as an exhibit, that specifies the Software Services and the Professional Services that OpenGov will provide to Customer. All such Order Form(s) are incorporated into this Agreement by reference.

1.5.

"Product Documentation" means the technical specifications that describe the features, functionality, configuration, and intended operation of the Software Services

located at https://opengov.my.site.com/support/s/agreement-product-documentation, which is incorporated into this Agreement by reference.

1.6.

"Professional Services" means the implementation, configuration, training, consulting, or other professional services provided by OpenGov or its authorized partners, and identified in the applicable Statement of Work.

1.7.

"Software Services" means the commercial-off-the-shelf software products and services provided by OpenGov and identified in the applicable Order Form.

1.8.

"Statement of Work" or "SOW" means the document(s) separately executed by the parties or attached as an exhibit to this Agreement or any applicable Order Form, that specifies the Professional Services that OpenGov will provide to Customer. All such SOW(s) are incorporated into this Agreement by reference.

2.Software Services and Professional Services

2.1.

Software Services.

2.1.1.

Subject to the terms and conditions of this Agreement, OpenGov will use commercially reasonable efforts to provide the Software Services.

2.1.2.

Support and Service Levels. Customer support is available by email to moc.vognepo@troppus or by using the chat messaging functionality of the Software Services. Customer may report issues any time; however, OpenGov will address issues during business hours. OpenGov will provide the applicable level of support in accordance with the Support and Software Service Levels located at https://opengov.com/service-sla, which is incorporated into this Agreement by reference.

2.2.

Professional Services.

2.2.1.

Subject to the terms and conditions of this Agreement, OpenGov will use commercially reasonable efforts to provide the Professional Services, if applicable. Unless otherwise specified in the SOW, any pre-paid Professional Services must be utilized within one year from the Effective Date.

2.2.2.

Travel Expenses for Professional Services. Travel expenses, if any, will be set forth in the applicable Order Form or SOW. Any additional travel expenses shall be subject to Customer's prior written approval and will be reimbursable by Customer.

3.Restrictions and Responsibilities

3.1.

Restrictions. Customer may not use the Software Services in any manner or for any purpose other than as expressly permitted by the Agreement. In addition, Customer shall not, and shall not knowingly or negligently, permit or enable any third party to: (a) use or access any of the Software Services to build a competitive product or service; (b) modify, disassemble, decompile, reverse engineer or otherwise make any derivative use of the Software Services (except to the extent applicable laws specifically prohibit such restriction); (c) sell, license, rent, lease, assign, distribute, display, host, disclose, outsource, copy or otherwise commercially exploit the Software Services; (d) perform or disclose any benchmarking or performance testing of the Software Services, including but not limited to load testing or stress testing; (e) remove any proprietary notices included with the Software Services; (f) use the Software Services in violation of applicable law; or (g) transfer any personal, sensitive, or personally identifiable information to OpenGov in a manner that violates Customer's obligations under the Data Processing Addendum.

3.2.

Responsibilities. Customer shall be responsible for obtaining and maintaining computers, third-party software systems of record, and application programming interfaces needed to connect to, access, or otherwise use the Software Services. Customer shall also be responsible for: (a) ensuring that such equipment is compatible with the Software Services, (b) maintaining the security of such equipment, user accounts, passwords and files, in accordance with industry standards, and (c) all uses of Customer user accounts by any party other than

OpenGov. OpenGov is not responsible for the operation, support, or security of any third-party software, systems, or services not provided by OpenGov.

3.3.

Data Processing Addendum. To the extent OpenGov processes any Customer Data that contains personal information, personally identifiable information, or sensitive personal information on behalf of Customer in the course of providing the Software Services and Professional Services under this Agreement, the parties agree to comply with the terms of the Data Processing Addendum, located at https://opengov.com/terms-of-service/data-processing-addendum/, which is incorporated into this Agreement by reference.

4.Intellectual Property Rights; License Grants; Access to Customer Data

4.1.

OpenGov's Intellectual Property Rights. OpenGov exclusively owns and retains all right, title, and interest to the Software Services, Professional Services, Documentation, and Product Documentation, including all Intellectual Property Rights therein. This includes, without limitation, all underlying technology, software, user interfaces, visual design elements (such as the "look and feel"), custom fonts, graphics, workflows, button icons, and any derivative works (e.g., enhancements, modifications, or corrections), including but not limited to those that are created in connection with or through the use of the Software Services, Professional Services, Documentation, or Product Documentation. Customer may not reproduce, modify, distribute, or create derivative works based on any part of the Software Services, in whole or in part, without OpenGov's prior written consent.

4.2.

License Grant to Customer. OpenGov grants Customer a non-exclusive, nontransferable, non-sublicensable, royalty-free license to use the Software Services, Documentation, and Product Documentation during the Term for its internal use and the purpose as described in this Agreement. No additional rights or licenses shall be deemed granted.

4.3.

Customer's Intellectual Property Rights. Customer retains all right, title, and interest, including all Intellectual Property Rights, in and to Customer Data. Customer grants OpenGov and its authorized partners (such as cloud hosting providers) a non-exclusive, royalty-free license to access, use, store, edit, reformat and otherwise

process Customer Data for the purpose of providing, maintaining, developing, and improving OpenGov's products and services.

4.4.

Aggregated and Anonymized Data. Customer agrees that OpenGov and its authorized partners may use aggregated and anonymized data derived from Customer Data to provide, maintain, develop, and improve OpenGov's products and services, to provide general customer service support and improvements, and to perform data and usage analytics. Any insights, developments, or improvements arising from such aggregated, anonymized data shall be owned by OpenGov.

4.5.

Access to Customer Data. Customer may download Customer Data from the Software Services at any time during the Term, excluding during routine software maintenance periods. For a period of 30 days after expiration of the Term, Customer may request that OpenGov complete a one-time transfer of Customer Data in a format customarily used in the industry at OpenGov's then-current hourly rate.

4.6.

Deletion of Customer Data. Unless otherwise requested pursuant to this Section 4.6, upon the termination of this Agreement, Customer Data shall be deleted pursuant to OpenGov's standard data deletion and retention practices, which is to delete Customer Data 45 days after termination or expiration of the Agreement. Upon written request, Customer may request deletion of Customer Data prior to the date of termination of this Agreement, in accordance with the notice requirements set forth in Section 10.2.

4.7.

Feedback. "Feedback" means any suggestions, comments, ideas, recommendations, usage, or other input provided by Customer to OpenGov regarding the services. Customer grants OpenGov a non-exclusive, royalty-free, irrevocable, perpetual, worldwide license to use such Feedback in the Software Services, Professional Services, Documentation and Product Documentation. OpenGov will exclusively own all right, title, and interest, including all Intellectual Property Rights, in and to any improvements, modifications, or derivative works to the Software Services, Professional Services, Documentation or Product Documentation that are based on or derived from such Feedback.

5.Confidentiality

5.1.

“Confidential Information” means all confidential business, technical, and financial information of the disclosing party that is marked as “Confidential” or an equivalent designation or that should reasonably be understood to be confidential given the nature of the information and/or the circumstances surrounding the disclosure. OpenGov’s Confidential Information includes, without limitation, the software underlying the Software Services, Documentation, and Product Documentation.

5.2.

Confidential Information does not include information that: (a) was publicly known or becomes publicly known through no breach of this Agreement by the receiving party; (b) is required to be disclosed upon request under any applicable federal, state, or local public records laws; (c) Customer expressly directs OpenGov make publicly available; (d) was lawfully known to the receiving party without restriction on disclosure before receipt from the disclosing party; (e) is disclosed to the receiving party by a third party who has the right to make such disclosure without restriction; or (f) is independently developed by the receiving party without access to the disclosing party’s Confidential Information.

5.3.

Each party agrees to use the other’s Confidential Information only in connection with this Agreement. Each party further agrees to protect the other party’s Confidential Information using the measures that it employs with respect to its own Confidential Information of a similar nature, but in no event with less than reasonable care. If a party is required to disclose Confidential Information by law, subpoena, or court order, it must, to the extent legally permitted, promptly notify the other party in writing prior to the disclosure to give the other party an opportunity to oppose or limit the disclosure.

6.Term and Termination

6.1.

Agreement Term. This Agreement begins on the Effective Date and will remain in effect until the termination or expiration of all active Order Forms entered into under this Agreement (“Term”), unless earlier terminated pursuant to this Section 6.

6.2.

Renewal. Each Order Form shall automatically renew for additional terms equal in duration to its initial term (each, a "Renewal Term"), unless either party provides written notice of non-renewal at least 30 days prior to the expiration of the then-current term.

6.3.

Termination for Cause. If either party materially breaches this Agreement and fails to cure such breach within 30 days after receiving written notice by the non-breaching party, the non-breaching party may terminate this Agreement.

6.4.

Termination for Non-Appropriation. If required by applicable law, Customer may terminate this Agreement if it does not appropriate funds for a future fiscal year. In order to terminate for non-appropriation, Customer must provide at least 30 days' prior written notice, provided it is after the first full year of the Agreement. Obligations to pay fees are non-cancelable, and payments are non-refundable. This section may not be used as a substitute for termination for convenience.

6.5.

Effect of Termination. Upon termination of this Agreement pursuant to Section 6: (a) Customer shall pay in full for all of the Software Services and Professional Services for the then-current annual term; (b) OpenGov shall stop providing the Software Services and the Professional Services to Customer; and (c) with the exception of Customer Data, the return and deletion of which are addressed in Section 4, each party shall, upon request of the other party, return or delete any of the other party's Confidential Information.

7.Payment of Fees

7.1.

Fees; Invoicing; Payment; Expenses.

7.1.1.

Fees. Fees for the Software Services and Professional Services are set forth in the applicable Order Form, and OpenGov will invoice Customer accordingly. Customer agrees to pay invoices within 30 days of receipt. Invoices are deemed received when OpenGov emails them to Customer's designated billing contact. Obligations to pay fees are non-cancelable, and payments are non-refundable, except as expressly provided in Sections 8.1.2 and 8.1.3.

7.1.2.

Annual Software Price Adjustment. OpenGov shall increase the fees for the Software Services during any Renewal Term by 5% each year or as otherwise agreed upon in the applicable renewal Order Form.

7.1.3.

Travel Expenses. OpenGov will invoice Customer for travel expenses provided in the SOW or Order Form as they are incurred. Customer shall pay all such valid invoices within 30 days of receipt of invoice. Receipts shall be provided for the travel expenses listed on the invoice.

7.2.

Consequences of Non-Payment. If Customer fails to make any payments required under any Order Form or SOW, then in addition to any other rights OpenGov may have under this Agreement or applicable law: (a) Customer will owe a late interest penalty of the maximum rate permitted by law; and (b) if Customer's account remains delinquent (with respect to payment of an undisputed invoice) for 10 days after receipt of a delinquency notice from OpenGov, which may be provided via email to Customer's designated billing contact, OpenGov may temporarily suspend Customer's access to the Software Service for up to 90 days to pursue good faith negotiations before pursuing termination in accordance with Section 6.3. Customer will continue to incur and owe all applicable fees irrespective of any such service suspension based on such Customer's delinquency.

7.3.

Taxes. Each party is responsible for the tax effects this Agreement imposes upon it. If Customer is tax-exempt, it will provide OpenGov its tax exemption certificate.

8.Representations and Warranties; Disclaimer

8.1.

By OpenGov.

8.1.1.

General Warranty. OpenGov represents and warrants that it has all right and authority necessary to enter into and perform this Agreement.

8.1.2.

Professional Services Warranty. OpenGov further represents and warrants that the Professional Services, if any, will be performed in a professional and workmanlike manner in accordance with the related SOW and generally prevailing industry standards. For any breach of the Professional Services warranty, OpenGov will reperform the applicable services. If OpenGov is unable to re-perform such work as warranted, Customer will be entitled to recover all fees paid to OpenGov for the deficient work. Customer must give written notice of any claim under this warranty to OpenGov within 90 days of the completion of the Professional Services pursuant to the applicable SOW to receive such warranty remedies.

8.1.3.

Software Services Warranty. OpenGov further represents and warrants that for the Term, the Software Services will perform in all material respects in accordance with the then-current Product Documentation. The foregoing warranty does not apply to (a) any Software Services that have been used in a manner other than as set forth in this Agreement, or (b) any pre-release features, functionality, or beta software services that Customer elects to use in the beta phase of development. For any breach of the Software Services warranty, OpenGov will repair or replace any nonconforming Software Services so that the affected portion of the Software Services operates as warranted. If OpenGov is unable to do so, Customer may terminate the Agreement and will be entitled to a refund of the pre-paid, unused portion of the fees from the date of the discovery of the defect. Customer must give written notice of any claim under this warranty to OpenGov within 90 days of Customer discovering the defect to receive such warranty remedies.

8.2.

By Customer. Customer represents and warrants that (a) it has all right and authority necessary to enter into and perform this Agreement and (b) OpenGov's use of Customer Data pursuant to this Agreement will not infringe, violate or misappropriate Intellectual Property Rights of any third party.

8.3.

Disclaimer. OPENGOV DOES NOT WARRANT THAT THE SOFTWARE SERVICES WILL BE UNINTERRUPTED OR ERROR FREE; NOR DOES IT MAKE ANY WARRANTY AS TO THE RESULTS THAT MAY BE OBTAINED FROM USE OF THE SOFTWARE SERVICES. EXCEPT AS SET FORTH IN THIS SECTION 8, THE SOFTWARE SERVICES ARE PROVIDED "AS IS" AND OPENGOV DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED,

INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY, TITLE, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT.

9.Limitation of Liability

9.1.

By Type. NEITHER PARTY, NOR ITS SUPPLIERS, OFFICERS, AFFILIATES, REPRESENTATIVES, CONTRACTORS OR EMPLOYEES, SHALL BE RESPONSIBLE OR LIABLE WITH RESPECT TO ANY SUBJECT MATTER OF THIS AGREEMENT UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR OTHER THEORY: (A) FOR ERROR OR INTERRUPTION OF USE OR FOR LOSS OR INACCURACY OF DATA OR COST OF PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES OR LOSS OF BUSINESS; (B) FOR ANY INDIRECT, EXEMPLARY, PUNITIVE, INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES; OR (C) FOR ANY MATTER BEYOND A PARTY'S REASONABLE CONTROL, EVEN IF SUCH PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSS OR DAMAGE.

9.2.

By Amount. IN NO EVENT SHALL EITHER PARTY'S AGGREGATE, CUMULATIVE LIABILITY FOR ANY CLAIMS ARISING OUT OF OR IN ANY WAY RELATED TO THIS AGREEMENT EXCEED THE FEES PAID OR PAYABLE BY CUSTOMER TO OPENGOV FOR THE SOFTWARE SERVICES UNDER THIS AGREEMENT IN THE 12 MONTHS PRIOR TO THE ACT THAT GAVE RISE TO THE LIABILITY.

9.3.

Limitation of Liability Exclusions. The limitations of liability set forth in Sections 9.1 and 9.2 above do not apply to, and each party accepts liability to the other for: (a) claims arising out of fraud or willful misconduct by either party; (b) either party's infringement of the other party's Intellectual Property Rights; (c) breach of obligations under Section 3.1; and (d) payment obligations under this Agreement.

9.4.

No Limitation of Liability by Law. Because some jurisdictions do not allow liability or damages to be limited to the extent set forth above, some of the above limitations may not apply.

10.Miscellaneous

10.1.

Logo Use. OpenGov shall have the right to use and display Customer's logos and trade names for marketing and promotional purposes in OpenGov's website and marketing materials, subject to Customer's trademark usage guidelines provided to OpenGov.

10.2.

Notice. Ordinary day-to-day operational communications may be conducted by email, live chat or telephone. For notices required by the Agreement the parties must communicate more formally in a writing sent via USPS certified mail and via email. OpenGov's addresses for notice are: moc.vognepo@lagel with a mailed copy to OpenGov, Inc., 660 3rd Street, Suite 100, San Francisco, CA 94107.

10.3.

Anti-corruption. Neither OpenGov nor any of its employees or agents has offered or provided any illegal or improper payment, gift, or transfer of value in connection with this Agreement. The parties will promptly notify each other if they become aware of any violation of any applicable anti-corruption laws in connection with this Agreement.

10.4.

Injunctive Relief. The parties acknowledge that any breach of the confidentiality provisions or the unauthorized use of a party's intellectual property may result in serious and irreparable injury to the aggrieved party for which damages may not adequately compensate the aggrieved party. The parties agree, therefore, that, in addition to any other remedy that the aggrieved party may have, it shall be entitled to seek equitable injunctive relief without being required to post a bond or other surety or to prove either actual damages or that damages would be an inadequate remedy.

10.5.

Force Majeure. Neither party will be liable for any delay or failure to perform its obligations under this Agreement, due to any events beyond its reasonable control, including but not limited to acts of god, acts of governmental authority, war, riot, labor disputes, failures of performance by any third-party services, utilities, or equipment failures, or any other events beyond the party's reasonable control. Notwithstanding the foregoing, Customer shall remain obligated to perform its obligations under Section 7.1.1.

10.6.

Severability; Waiver. If any provision of this Agreement is found to be unenforceable or invalid, that provision will be limited or eliminated to the minimum extent necessary so that this Agreement will otherwise remain in full force and effect and enforceable. Any express waiver or failure to exercise promptly any right under this Agreement will not create a continuing waiver or any expectation of non-enforcement.

10.7.

Survival. The following sections of this Agreement shall survive termination or expiration: Section 5 (Confidentiality), Section 7 (Payment of Fees), Section 4.6 (Deletion of Customer Data), Section 8.3 (Warranty Disclaimer), Section 9 (Limitation of Liability), and Section 10 (Miscellaneous).

10.8.

Assignment. There are no third-party beneficiaries to this Agreement. Neither party may assign, or otherwise transfer this Agreement without the other party's written consent, which consent may not be unreasonably withheld, conditioned, or delayed. Notwithstanding the foregoing, either party may assign, without such consent but upon written notice, its rights and obligations under this Agreement to its corporate affiliate or to any entity that acquires all or substantially all of its capital stock or its assets related to this Agreement, through purchase, merger, consolidation, or otherwise. Any other attempted assignment shall be void. This Agreement will benefit and bind permitted assigns and successors.

10.9.

Independent Contractors. This Agreement does not create an agency, partnership, joint venture, or employment relationship, and neither party has any authority to bind the other.

10.10.

Governing Law and Jurisdiction. This Agreement will be governed by the laws of Customer's jurisdiction, without regard to conflict of laws principles. The parties submit to personal jurisdiction and venue in the courts of Customer's jurisdiction.

10.11.

Complete Agreement. OpenGov has made no other promises or representations to Customer other than those contained in this Agreement. Any additional or different terms in a purchase order or click-through agreement are expressly rejected by the parties and are void. Any modification to this Agreement must be in writing and signed

by an authorized representative of each party. No third parties are authorized to modify this Agreement. If there is a conflict between this Agreement and any other attached or incorporated document, the terms of this Agreement will control unless expressly stated otherwise.

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TITLE

Approval of a Five-Year Agreement with Govinity, Inc. for Legislative and Public Meeting Management Software Services.

RECOMMENDATION

Adopt a resolution approving a five-year agreement with Govinity, Inc. for legislative and public meeting management software services in an amount not to exceed $182,500 and authorizing the City Manager to execute the necessary documents.

CONTACT

Nicolle Hall, CMC, Deputy City Clerk

BACKGROUND & ANALYSIS

The city currently uses Granicus Peak Agenda Management for agenda preparation, publication, and public meeting functions. Staff has experienced ongoing operational and customer support issues, including a software outage during the September 3, 2026, Finance Subcommittee meeting when Granicus customer support was unavailable by phone. On another occasion, Granicus staff was unable to provide a solution to a technical issue, requiring city staff to develop code-assisted workarounds using AI tools. These recent examples are representative of ongoing issues that led staff to evaluate alternative meeting management solutions.

Govinity combines the city's meeting management functions into four integrated modules. Tenure manages boards and commissions; Agenda supports staff report drafting, routing, approvals, packet assembly, and public posting; The Record provides streaming, captioning, transcription, minutes, and a searchable public archive; and Live provides live clerk minutes, voting, in-chamber display, and meeting-night controls. Microsoft 365 and single sign-on integration are also included.

For departmental staff, Microsoft 365 integration will allow staff to prepare staff reports in Microsoft Word while remaining within the agenda workflow, providing a more familiar and efficient drafting process.

Accessibility is a key benefit of the Govinity platform. The system meets WCAG 2.1 Level AA standards, which are guidelines designed to make websites and online information accessible to people with disabilities. Features include keyboard navigation, screen-reader support, accessible

agenda packets, live captions, searchable transcripts, and meeting records linked to agenda items. These features make City meeting information easier for the public to access and help the city meet accessibility requirements. Govinity also provides translation tools to make meeting information available in other languages.

Granicus sales and customer support staff have advised City staff that Granicus is no longer investing staff time or financial resources in updating the version of Peak currently used by the City. To obtain updated functionality, the city would need to transition to a more expensive Granicus product. Such an upgrade would require another software transition and additional cost, while not addressing the City's ongoing concerns regarding Granicus customer service and technical support.

Govinity provides meeting-focused customer support, including live in-app assistance during evening meetings. The city will have a dedicated implementation and support team, role-based training, and an engineer on standby for the first live-broadcast Council meeting. This responsive support is particularly valuable when technical issues arise during live public meetings.

Implementation is scheduled to begin in October 2026, with full transition by July 1, 2027. Staff recommends Govinity based on its functionality, accessibility, ease of use, customer support, and lower recurring cost.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Organizational Effectiveness: "Deliver exemplary government services."

FISCAL IMPACT

The Govinity annual subscription is $35,000, compared with the City's current Granicus cost of $37,525, saving $2,525 annually. The five-year agreement totals $182,500, including $7,500 for implementation, migration, and training, for an estimated five-year savings of $5,125.

ENVIRONMENTAL REVIEW

None

COMMUNICATION

Level 0: No Further Public Communication Needed

ATTACHMENTS:

Resolution - Govinity
Exhibit A - Govinity Proposal
Exhibit B - Govinity MSA

RESOLUTION NO. 2026-____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON APPROVING A FIVE-YEAR AGREEMENT WITH GOVINITY, INC. FOR LEGISLATIVE AND PUBLIC MEETING MANAGEMENT SOFTWARE SERVICES IN AN AMOUNT NOT TO EXCEED $182,500

WHEREAS, the City of American Canyon utilizes software solutions to support agenda management, public meetings, streaming, minutes, records management, and public access to legislative information; and

WHEREAS, Govinity, Inc. has proposed an integrated legislative and public meeting management platform providing agenda and workflow management, boards and commissions management, streaming, captioning, transcription, minutes, live meeting functions, and a searchable public archive; and

WHEREAS, Govinity has proposed a five-year arrangement consisting of an initial one-year term commencing January 1, 2027, with four annual renewal options, with implementation beginning in October 2026 and full cutover planned for July 1, 2027; and

WHEREAS, the cost is $42,500 for Year 1, including $7,500 for implementation, migration, and training, and $35,000 annually for Years 2 through 5, for a total amount not to exceed $182,500 over five years; and

WHEREAS, funding for future years will be subject to the City's regular budget and appropriation process.

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of American Canyon hereby approves the five-year agreement with Govinity, Inc. for legislative and public meeting management software services and authorizes the City Manager to execute all documents necessary to implement the agreement, in a total amount not to exceed $182,500.

PASSED, APPROVED and ADOPTED at a regularly scheduled meeting of the City Council of the City of American Canyon held on the ____ day of _____, 2026, by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

ATTEST:

_____
Pierre Washington, Mayor

_____
Taresa Geilfuss, City Clerk

APPROVED AS TO FORM:

_____
City Attorney

APPENDICES:

Appendix A – Govinity Master Services Agreement
Appendix B – Govinity Proposal dated August 7, 2026

govinity

The Partner Public Service Deserves

PROPOSAL FOR

City of American Canyon, California

Legislative & Public Meeting Management Platform

Prepared for: City Clerk's Office, City of American Canyon

Prepared by: Govinity, Inc.

Date: August 7, 2026

Valid Through: November 5, 2026

CONFIDENTIAL — This proposal contains pricing and proprietary information intended only for the named recipient.

A Note from the CEO

Friday, August 7, 2026

Nicolle Hall, CMC, Deputy City Clerk
Taresa Geilfuss, CMC, City Clerk
City of American Canyon
4381 Broadway, Suite 201
American Canyon, CA 94503

Dear Nicole and Taresa,

Thank you for the opportunity to share Govinity with the City of American Canyon. We built Govinity for a specific kind of customer: agencies that take open meetings and open records seriously, and that want the operational workflows, their meeting agendas, their streaming media, their minutes, and an overall public record to feel like one connected workflow rather than disconnected tools held loosely together by private equity, unfulfilled contract promises, and poor support.

My team and I have spent our careers in government technology, with all of its ups… and downs. I previously served as CTO of Public Systems Associates (Louisiana Legislature), led product, operations, and sales at Granicus, and co-founded ProcureNow (now with OpenGov). The people building Govinity have written previous iterations of agenda management software, run the meeting nights, and answered the public records requests the morning after. We know where the friction is, and we built the platform we wished we'd had.

This proposal is tailored specifically to American Canyon. It reflects your current situation and your obligations under the Brown Act, the California Public Records Act, and accessibility requirements under Title II of the ADA. Pricing is a single annual SaaS license sized to your total annual budget, plus the modules you select… transparent and easy to budget against. The schedule follows your calendar: kickoff October 1, 2026, first invoice January 1, 2027, full cutover July 1, 2027.

I would welcome the opportunity to walk through this proposal with you. You can reach me directly at the contact information below.

Respectfully,



Thao Hill
Co-Founder & CEO, Govinity, Inc.
thao@govinity.com · 415-470-2428

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1. Executive Summary

Govinity is the modern, all-in-one platform for managing legislative and public meetings for public agencies. American Canyon currently runs a steady cadence of public meetings, each governed by the Brown Act, broadcast to the community on Napa Valley TV 28, and producing public records the City Clerk must preserve and make accessible.

Govinity replaces the patchwork of tools, templates, and manual handoffs that most agencies still rely on. From the moment a staff report is drafted to the moment a vote is recorded and the minutes are published, everything happens in one connected workflow.

What American Canyon gets with Govinity:

- **One workflow, end-to-end.** Agenda creation, packet assembly, the live meeting, voting, minutes, and the public-facing record — all in a single platform.
- **Accessible by default.** Title II ADA compliance, live and recorded transcriptions, screen-reader-friendly public agendas, and a searchable archive.
- **Designed for clerks, and both your internal and public customers.** Templates, automations, and one-click publishing built for cities of all sizes.
- **Transparent SaaS pricing.** A single annual license sized to your total budget, plus only the modules you choose. No per-user surprises, no professional services traps.

The total proposed investment for American Canyon, covering all four Govinity modules, is detailed in Section 7. Implementation **begins October 1, 2026,** and completes with a **100% cutover to Govinity by July 1, 2027**.

2. Understanding American Canyon

American Canyon is a community of more than 21,000 residents at the southern gateway to the Napa Valley, incorporated in 1992. Its public meeting program is more active than most cities of its size.

Public access channels

Meetings are broadcast live on Napa Valley TV Channel 28, streamed on the City's YouTube channel, and re-broadcast on Channel 28 the following Tuesday and Wednesday. Agenda packets are posted by 5:00 PM the Friday before each Council meeting.

Regulatory obligations Govinity addresses directly

- **Ralph M. Brown Act.** Posting timing, agenda specificity, closed session reporting, and public participation rules are enforced by the platform workflow.
- **California Public Records Act (CPRA).** All agendas, packets, minutes, video, and supporting documents are preserved in a searchable public archive with structured retention.
- **ADA Title II (and the 2024 DOJ web accessibility rule).** WCAG 2.1 AA-conformant public site, machine-readable agendas, live captioning, and screen-reader-friendly archives.
- **California AB 2449 and SB 411 (hybrid / remote participation).** Native support for hybrid workflows where the body chooses to use them.

3. The Govinity Platform

Govinity is delivered as a multi-tenant, cloud-hosted SaaS platform. Every agency gets the same core platform; modules are turned on à la carte based on need.

Architecture at a glance

- **Cloud-native.** Hosted on AWS in U.S. regions, with encryption in transit (TLS 1.2+) and at rest (AES-256).
- **Single sign-on.** SAML 2.0 / OIDC integration with your identity provider (Microsoft Entra ID / Google Workspace).
- **Open by design.** REST APIs and webhooks for integrations with the City website, agenda data feeds, document management systems (i.e. Laserfiche, etc), and broadcast systems.
- **Accessible by default.** WCAG 2.1 AA throughout the staff and public experience
- **Mobile-ready.** Members of the body can review packets, annotate, and vote from any device if that's part of the city's needs.

How a typical meeting moves through Govinity

Staff drafts an item → routes for review and legal sign-off → the City Clerk publishes the agenda and packet → members of the body annotate privately → the Chair runs the live meeting through Govinity → motions and votes are recorded as they happen → minutes are auto-drafted from the live record → the Clerk finalizes and publishes → the archive, video, and roll-call record are public and searchable post adjournment.

The Operating System for Public Meetings.

From the moment a department submits a report through final council action, mayor transmittal, and public archival - everything flows through one platform with one data model.



4. Proposed Modules

Govinity is delivered as four integrated modules, all included in this proposal for the City of American Canyon. Integrations to Microsoft 365, single sign-on, and other systems can be added as add-ons, scoped during contracting.

Module	What it does
Tenure	Boards & commissions management. Multi-body support across the City Council, Fire District Board, Planning Commission, Parks & Community Services Commission, and Open Space Advisory Committee — including rosters, terms, appointments, recruitment, and member onboarding.
Agenda	Item drafting, staff report templates, routing and approvals, packet assembly, and automated public posting timed to Brown Act requirements.
The Record	Live streaming, captioning, transcription, and minutes. An indexed, WCAG 2.1 AA-conformant public archive linked to agenda items and votes.
Live	Live Clerk Minutes, Live Voting, and Live In-Chamber Display. Meeting-night control for the Clerk and the body, with offline-capable, LAN-resilient operation in the Council Chambers.

Add-ons. Microsoft 365 and single sign-on (SSO) integrations are included in this proposal as separate line items in Section 7. Additional integrations (other identity providers, codifiers, document management systems such as Laserfiche, agenda data feeds, etc.) are available and can be scoped during contracting if elected.

5. Implementation & Onboarding

This implementation is scheduled against American Canyon's calendar: contract execution no later than September 15, 2026, project kickoff on October 1, 2026, and a 100% cutover to Govinity on July 1, 2027. The phases below reflect that ***schedule*** and will be confirmed in a mutually agreed Statement of Work.

Phase	Timeline	Key activities
1. Kickoff & Discovery	Oct 2026	Project kickoff October 1, 2026. Stakeholder interviews (Clerk, IT, City Attorney), configuration workbook, identity provider integration plan.
2. Configuration	Oct–Dec 2026	Set up bodies, templates, workflows, retention rules; SSO integration; brand and public site theming; codifier and website integration scoping.
3. Data Migration	Dec 2026–Feb 2027	Migration of agendas, minutes, and video archive from CivicWeb / current systems into Govinity (scope confirmed in discovery).
4. Training	Feb–Mar 2027	Role-based training: City Clerk team, department liaisons, body members, IT administrators. Recordings retained for ongoing onboarding.
5. Parallel Run & Phased Go-Live	Apr–Jun 2027	Govinity runs in parallel with current systems, body by body, beginning with the City Council. Govinity engineer on standby for the first live broadcast Council meeting.
6. Full Cutover	July 1, 2027	100% of Council, board, and commission meetings run on Govinity. Legacy systems retired and the public archive fully transitioned.
7. Hypercare	Jul–Sep 2027	Daily check-ins for the first 30 days post-cutover, weekly thereafter through the remainder of the quarter.

Roles and responsibilities

- **Govinity Implementation Lead.** Single point of accountability throughout onboarding, hypercare, and the first annual renewal.
- **Govinity Solutions Engineer.** Configures the platform, executes data migration, and integrates SSO, broadcast, codifier, and website.
- **Govinity Customer Success Manager.** Long-term partner responsible for ongoing adoption, quarterly business reviews, and roadmap input.
- **American Canyon Project Sponsor (recommended: City Clerk).** Decision-making authority for configuration, training schedule, and go-live approval.

6. Support

Govinity provides in-app chat support to every named user. Average response time is within 5 minutes during business hours, and most issues are resolved the same day.

Detailed uptime, security, and service-level commitments are addressed in the Master Subscription Agreement.

7. Pricing

Pricing for the City of American Canyon is one-time professional services & setup plus annual SaaS license & support for the four Govinity modules and the selected integrations. No per-user fees, no per-meeting fees, no separate fees for additional bodies, commissions, or committees.

Line Item	Year 1 Investment
Professional Services & Setup (one-time — implementation, migration & training)	$7,500
Tenure — Boards & Commissions Management	$35,000
Agenda — Agenda & Workflow Management	
The Record — Streaming, Captioning, Transcription & Minutes	
Live — Live Clerk Minutes, Live Voting, Live In-Chamber Display	
Microsoft 365 Integration	
Single Sign-On (SSO) Integration	
YEAR 1 TOTAL	**$42,500**
Year 2 through Year 5 — annual recurring	**$35,000**

Term. Five (5) years total: an initial one-year term commencing January 1, 2027, with four (4) annual options to renew. Implementation begins at kickoff on October 1, 2026; the October–December 2026 onboarding period carries no subscription charge.

Add-ons. Microsoft 365 and single sign-on (SSO) integrations are included as line items above. Additional integrations (other identity providers, codifiers, document management systems such as Laserfiche, agenda data feeds, and others) are available and will be scoped and priced during contracting if elected; they are not included in this proposal.

Payment terms. No invoice will be issued before January 1, 2027. Professional services and the Year 1 annual SaaS fee are invoiced on January 1, 2027, Net 30. Each subsequent annual SaaS fee is billed in advance on January 1. ACH preferred. Remaining commercial and legal terms are addressed in Govinity's Master Subscription Agreement.

8. Why Govinity

Leadership built specifically for this market

Govinity is led by a team that has spent the last two decades inside the legislative and govtech space — not adjacent to it.

- **Former CTO** of Public Systems (Louisiana Legislature, Kansas City, MO).
- **Former Head of Product, Operations, and Sales** at Granicus.
- **Co-founders of ProcureNow,** the government procurement suite acquired by OpenGov.
- **Former VP of Product Management** for OpenGov's Procurement and Contract Management Suite.
- **Current advisory roles** with Sovra and Procurated.

Built for clerks, not configured for clerks

Most meeting management tools are general-purpose document and workflow platforms with a clerk skin on top. Govinity was designed from the first line of code around the way a City Clerk's office actually works — Brown Act timing, the agenda packet as a first-class object, action minutes as the default, and the public record as the output of the workflow rather than a manual export.

Modern, accessible, and open

The 2024 DOJ rule under Title II of the ADA raises the bar for every public agency's website and digital meeting record. Govinity is built to WCAG 2.1 AA conformance throughout — the public-facing archive, the live meeting view, captions, and the staff experience.

Aligned incentives

Govinity is a privately held, growth-stage company focused exclusively on this category. We look forward to becoming the preferred public meetings solutions vendor for The City of American Canyon!

Govinity Master Services Agreement

The Parties to this Master Services Agreement (this "**Agreement**") are Govinity, Inc., a Delaware corporation ("**Govinity**"), and the entity listed in the signature block ("**Customer**"). This Agreement is effective as of the date last signed below (the "**Effective Date**"). Each of Customer and Govinity is a "**Party**" and together, the "**Parties**".

1. Definitions

1.1. "**Customer Data**" means the data that is transmitted by Customer or third parties through the Platform.

1.2. "**Documentation**" means any user guides or similar materials made available by Govinity to Customer that detail the features, functionality, and specifications of the Platform.

1.3. "**Intellectual Property Rights**" means all past, present, and future intellectual property rights including those associated with works of authorship, copyrights, moral rights, trademarks, trade names, trade secrets, patent rights, and any other proprietary rights in intellectual property of every kind and nature.

1.4. "**Order Form**" means the document(s) separately executed by the Parties, that specifies the Platform and any Professional Services that Govinity will provide to Customer. All such Order Form(s) are incorporated into, and governed by, this Agreement by reference. The Order Form will identify the purchased modules and any usage limitations imposed on Customer's use of the Platform.

1.5. "**Platform**" means the proprietary software-as-a-service platform provided by Govinity and identified in the applicable Order Form, including the applicable modules.

1.6. "**Professional Services**" means the implementation, configuration, training, consulting, or other professional services provided by Govinity or its authorized contractors, identified in the applicable Order Form.

1.7. "**Services**" means collectively, the Platform and Professional Services.

2. Scope of Services.

2.1. **Services**. Subject to Customer's compliance with the terms of this Agreement, Govinity will make the Platform available to Customer as further detailed in the applicable Order Form, and provide any Professional Services purchased thereunder. Customer support is available by email to support@govinity.com or by other mechanisms that may be made available by Govinity to Customer from time to time. Issues with Customer's use of the Platform will be prioritized based on severity level and will be addressed within Govinity's normal business hours.

2.2. **Customer Responsibilities**. Customer shall be responsible for obtaining and maintaining computers, third-party software systems of record, and application programming interfaces needed to connect to, access, or otherwise use the Platform. Customer shall also be responsible for: (a) ensuring that such equipment is compatible with the Platform, (b) maintaining the security of such equipment, user accounts, passwords and files, in accordance with industry standards, and (c) all uses of Customer user accounts by any party other than Govinity. Govinity is not responsible for the operation, support, or security of any third-party software, systems, or services not provided by Govinity, even where Govinity permits Customer to integrate such third-party software, systems, or services with the Platform.

2.3. **Data Processing Addendum**. To the extent Govinity processes any Customer Data that contains Personal Data on behalf of Customer in the course of providing the Platform and Professional Services under this Agreement, the Parties agree to comply with the terms of the Govinity Data Processing Addendum attached as Exhibit A.

3. Intellectual Property Rights

3.1. **Govinity's Intellectual Property Rights**. As between the Parties, Govinity owns and retains all right, title, and interest in and to the Platform, Professional Services, and Documentation, including all Intellectual Property Rights therein. This includes, without limitation, all underlying technology, software, user interfaces, visual design elements (such as the "look and feel"), custom fonts, graphics, workflows, button icons, and any derivative works (e.g., enhancements, updates, improvements, modifications, or corrections), including but not limited to those that are created in connection with or through the use of the Platform, Professional Services, or Documentation. Customer may not reproduce, modify, distribute, or create derivative works based on any part of the Platform, in whole or in part, without Govinity's prior written consent. Govinity grants Customer a limited, non-exclusive, non-transferable, non-sublicensable, license to access and use the Services and Documentation during the term of the applicable Order Form for its business purposes.

3.2. **Customer's Intellectual Property Rights**. As between the Parties, Customer retains all right, title, and interest, including all Intellectual Property Rights, in and to Customer Data. Customer grants Govinity and its authorized contractors a limited, worldwide, non-exclusive license to access, use, display, store, modify, and otherwise process Customer Data to provide, improve, maintain, and monitor the Services. Notwithstanding the foregoing, Govinity shall have a perpetual, irrevocable, worldwide license to use aggregated and anonymized Customer Data (that is incapable of identifying Customer or any individual) to develop and improve Govinity's products and services, generally, and for all lawful purposes, including without limitation benchmarking and analytics.

3.3. **Feedback**. "**Feedback**" means any suggestions, comments, ideas, recommendations, usage, or other input provided by Customer to Govinity regarding the Services. Customer grants Govinity a non-exclusive, royalty-free, irrevocable, perpetual, worldwide sublicensable, transferable, license to use such Feedback for any purposes without any remuneration to Customer. Govinity acknowledges and agrees that Feedback is provided on an "AS IS" basis by Customer. External use by Govinity of Feedback will not identify Customer or any individual.

3.4. **Restrictions**. Customer shall not, and shall not permit any third parties to: (a) use the Platform in any manner or for any purpose other than as expressly permitted by the Agreement; (b) use or access the Platform for the purposes of creating or developing any product or service that is competitive with the Platform; (c) modify, disassemble, decompile, disable, reverse engineer, or otherwise make any derivative use of the Platform (except to the extent applicable laws specifically prohibit such restriction), or attempt to discover the source code or object code of the Platform; (d) sell, license, rent, lease, or otherwise provide the Platform, in whole or in part, to any third parties without Govinity's prior written consent in each instance; (e) perform or disclose any benchmarking or performance testing of the Platform, including but not limited to load testing or stress testing; (f) remove any proprietary notices included within the Platform or on any Documentation; (g) use the Platform in violation of applicable law; or (h) use the Platform to transfer any malicious code.

4. Confidentiality

4.1. **Definition.** "**Confidential Information**" means all confidential or proprietary business, technical, and financial information of the disclosing Party ("**Disclosing Party**") that made available to the other Party ("**Receiving Party**") and is either marked as "confidential" or "proprietary" or where given the nature of the information and the circumstances of the disclosure the Receiving Party should reasonably understand the information to be confidential and/or proprietary. Govinity's Confidential Information includes, without limitation, the Platform. Confidential Information does not include information that: (a) was or

becomes publicly known through no fault of the Receiving Party; (b) was lawfully known to the Receiving Party without restriction on disclosure before receipt from the Disclosing Party; (c) is disclosed to the Receiving Party by a third party not subject to confidentiality obligations to the Disclosing Party; or (d) is independently developed by the Receiving Party without the use of Confidential Information.

4.2. Maintenance of Confidential Information. Receiving Party agrees to: (a) use Disclosing Party's Confidential Information only as necessary to perform its obligations and exercise its rights under this Agreement. protect Disclosing Party's Confidential Information using the same degree of care it uses to protect its own similar information, but in no event less than a reasonable degree of care; and (c) only give access to Confidential Information to those of its employees, representatives, and contractors who have a need to know such information, who are bound by confidentiality obligations at least as stringent as those contained herein, and for whose acts and omissions with respect to the Disclosing Party's Confidential Information the Receiving Party shall at all times be liable.

4.3. Compelled Disclosure; Breach. Where Receiving Party is legally obligated to disclose Disclosing Party's Confidential Information in connection with a valid court order, Receiving Party shall, to the extent legally permitted, first notify the Disclosing Party, giving the Disclosing Party an opportunity to contest the compelled disclosure. Receiving Party shall reasonably cooperate with the Disclosing Party, at the Disclosing Party's request and expense, in contesting such compelled disclosure. In any event, Receiving Party shall only disclose that portion of Disclosing Party's Confidential Information that is minimally necessary to comply with the compelled disclosure. In the event of a breach or threatened breach of this Section 4, Receiving Party acknowledges that Disclosing Party may suffer substantial harm the extent of which may be difficult to quantify. Therefore, in addition to any and all other remedies available to the Disclosing Party at law and in equity, the Disclosing Party shall be permitted to seek and obtain injunctive relief without the requirement of proving actual damages or posting a bond.

5. Term and Termination

5.1. Term. This Agreement begins on the Effective Date and will remain in effect until the termination or expiration of all active Order Forms entered into under this Agreement ("**Term**"), unless earlier terminated pursuant to this Section 5. Each Order Form will have its own term length and will be subject to renewal options as described therein.

5.2. Termination for Cause or Convenience. Either Party may terminate this Agreement, with or without cause, upon ninety (90) days' prior written notice to the other Party.

5.3. Termination for Non-Appropriation. If required by applicable law, Customer may terminate this Agreement if it does not appropriate funds for a future fiscal year. In order to terminate for non-appropriation, Customer must provide at least thirty (30) days' prior written notice, provided it is after the first full year of the Agreement. Obligations to pay fees are non-cancelable, and payments are non-refundable. This section may not be used as a substitute for termination for convenience.

5.4. Effect of Termination. Upon termination of this Agreement pursuant to Section 5: (a) Customer shall pay in full for all of the Services for the then-current annual term; (b) Govinity shall cease providing the Services to Customer; and (c) subject to Section 5.4.1, each Party shall, upon request of the other Party, return or delete any of the other Party's Confidential Information and upon request, certify such return or destruction in writing.

5.4.1. Customer may download Customer Data from the Platform at any time during the Term. For a period of thirty (30) days after expiration of the Term, Customer may request that Govinity complete a one-

time transfer of Customer Data in an industry-standard format. Thereafter, Customer Data shall be deleted pursuant to Govinity's standard data deletion and retention practices. Upon written request, Customer may request deletion of Customer Data prior to the date of termination of this Agreement.

5.5. Survival. Any provision of this Agreement which by its nature should reasonably be understood to survive termination or expiration, shall so survive.

6. Fees and Payment

6.1. Fees and Invoicing. Fees for the Services are set forth in the applicable Order Form (the "**Fees**"), and Govinity will invoice Customer as described therein. Unless otherwise stated in the applicable Order Form or elsewhere in this Agreement, all Fees are (a) in United States Dollars, (b) invoiced annually in advance beginning on the effective date of the applicable Order Form, (c) due within thirty (30) days of invoice date, and (d) non-cancelable and non-refundable. Customer may notify Govinity of a good faith dispute within thirty (30) days of the invoice date for the invoice giving rise to such dispute, provided that Customer shall pay all undisputed amounts when due and promptly pay any remaining amounts upon resolution of the dispute.

6.2. Taxes. Each Party is responsible for the tax effects this Agreement imposes upon it. If Customer is tax-exempt, it will provide Govinity its valid tax exemption certificate. Fees listed in the Order Form are exclusive of any applicable taxes, and no Fees shall be withheld by Customer such that Govinity does not receive the full amount listed in an applicable invoice for the Services.

6.3. Expenses. Govinity will invoice Customer for pre-approved travel and out-of-pocket expenses as they are incurred, which are payable within thirty (30) days of invoice date. Such expenses will be passed on to Customer without any markup. Receipt will be provided by Govinity to Customer upon request.

6.4. Non-Payment. If Customer fails to make any payments required under any Order Form where such amounts are not the subject of a good faith dispute, then in addition to any other rights and remedies Govinity may have under this Agreement or applicable law: (a) Customer will owe a late interest penalty of the maximum rate permitted by law; and (b) if Customer's account remains delinquent (with respect to payment of an undisputed invoice) for ten (10) days after receipt of a delinquency notice from Govinity, which may be provided via email to Customer's designated billing contact, Govinity may temporarily suspend Customer's access to the Platform. Customer will continue to incur and owe all applicable fees irrespective of any such Platform suspension based on such Customer's delinquency. Govinity will promptly reinstate access to the Platform upon payment of outstanding amounts.

7. Representations and Warranties; Disclaimer

7.1. Mutual. Each Party represents and warrants to the other Party that: (a) it has all necessary right and authority to enter into, and perform its obligations pursuant to, this Agreement; and (b) it is not a party to any other agreements which conflict with, or prohibit it from entering into, this Agreement; and (c) its performance of its obligations hereunder will at all times comply with all applicable laws.

7.2. Govinity. Govinity further represents and warrants to Customer that: (a) the Professional Services, if any, will be performed in a professional and workmanlike manner in accordance with generally prevailing industry standards; and (b) the Platform will perform materially in accordance with the Documentation and the functionality of the Platform will not be materially degraded during the applicable Order term. In the event of any breach of the foregoing representations and warranties, Customer's sole and exclusive remedy is to have Govinity reperform the Professional Services and/or repair the Platform, or if neither of the foregoing occurs within thirty (30) days of notice by Customer to Govinity, Customer may terminate

the Agreement in accordance with Section 5.2 and receive a prorated refund of any prepaid unused Fees as of the termination date.

7.3. By Customer. Customer further represents and warrants that Govinity's use of Customer Data pursuant to this Agreement will not infringe, violate, or misappropriate Intellectual Property Rights of any third party.

7.4. Disclaimer. EXCEPT AS SET FORTH IN THIS AGREEMENT OR THE APPLICABLE ORDER FORM, THE SERVICES ARE PROVIDED ON AN "AS IS" BASIS WITHOUT ANY REPRESENTATIONS OR WARRANTIES OF ANY KIND WHATSOEVER, WHETHER EXPRESS OR IMPLIED, ORAL OR WRITTEN, INCLUDING WITHOUT LIMITATION THOSE OF MERCHANTABILITY, TITLE, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT, OR THAT THE PLATFORM WILL BE TIMELY, UNINTERRUPTED, OR ERROR FREE.

8. Limitation of Liability

8.1. Disclaimer. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAWS AND EXCEPT WITH RESPECT TO THE EXCLUSIONS IN SECTION 8.2, NEITHER PARTY, NOR ITS SUPPLIERS, OFFICERS, AFFILIATES, REPRESENTATIVES, CONTRACTORS OR EMPLOYEES, SHALL BE RESPONSIBLE OR LIABLE WITH RESPECT TO ANY SUBJECT MATTER OF THIS AGREEMENT UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR OTHER THEORY: (A) FOR ERROR OR INTERRUPTION OF USE OR FOR LOSS OR INACCURACY OF DATA OR COST OF PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES OR LOSS OF BUSINESS, REVENUE, OR PROFIT; (B) FOR ANY INDIRECT, EXEMPLARY, PUNITIVE, INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES; OR (C) FOR ANY MATTER BEYOND A PARTY'S REASONABLE CONTROL, EVEN IF SUCH PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH LOSS OR DAMAGE.

8.2. Exclusions. The disclaimers in Section 8.1 above do not apply to, and each Party accepts liability to the other Party for: (a) its gross negligence, fraud, or willful misconduct; (b) its misappropriation of the other Party's Intellectual Property Rights; and (c) its indemnification obligations in Section 8.3.

8.3. Indemnification.

8.3.1. Govinity Indemnification. Govinity will indemnify, defend, and hold Customer harmless from and against any demands, suits, causes of action, claims, or proceedings (collectively, "**Claims**") brought by a third party, and resulting damages, liabilities, losses, penalties, fines, costs and expenses (including reasonable attorneys' fees) (collectively "**Losses**") arising out of or relating to allegations that the Platform, when used as permitted hereunder, infringes misappropriates or otherwise violates any US Intellectual Property Rights. The foregoing shall not apply where the Claim is caused, in whole or in part, by: (a) unauthorized use of the Platform, (b) modifications made to the Platform by anyone other than Govinity or without Govinity's prior written approval, or (c) Customer Data. In the event the Platform is, or in Govinity's reasonable opinion is likely to be, enjoined, Govinity shall do one of the following in its discretion: (i) procure for Customer the right to continue using the Platform, (ii) modify or replace the Platform such that it is non-infringing but functionally equivalent, or (iii) terminate the applicable Order Form and provide Customer a prorated refund of any prepaid unused Fees as of the termination date. THE FOREGOING STATES GOVINITY'S SOLE LIABILITY AND CUSTOMER'S EXCLUSIVE REMEDY WITH RESPECT TO AN INTELLECTUAL PROPERTY RIGHTS CLAIM RELATING TO THE PLATFORM.

8.3.2. Customer Indemnification. To the extent permitted by applicable laws, Customer will indemnify, defend, and hold Govinity harmless from and against any Claims brought by a third party and all

Losses arising out of or relating to allegations the Customer Data, when used by Govinity as permitted hereunder, infringes, misappropriates, or otherwise violates any US Intellectual Property Rights, or that such Customer Data was collected by Customer in violation of applicable laws.

8.3.3. Procedure. The Party seeking indemnification pursuant to this Section 8 ("**Indemnitee**") must: (a) promptly notify the Party from whom indemnification is sought ("**Indemnitor**"), (b) give the Indemnitor sole control of the defense and settlement of the Claim using its own counsel, provided that Indemnitor shall not settle any Claim that imposes liability upon, or constitutes an admission by, Indemnitee without Indemnitee's prior written consent, and (c) provide Indemnitor with reasonable cooperation at the Indemnitor's request and expense. The Indemnitee may participate in the defense and settlement of the Claim using its own counsel at its own expense.

8.4. Insurance. Govinity shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than one million dollars ($1,000,000) per occurrence for bodily injury, personal injury, and property damage, including without limitation, blanket contractual liability. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit. Govinity's general liability policies shall be primary and non-contributory, and be endorsed using Insurance Services Office form CG 20 10 (or equivalent) to provide that Customer and its officers, officials, employees, attorneys and agents shall be additional insureds under such policies. For construction contracts, an endorsement providing completed operations to the additional insured, ISO form CG 20 37, is also required.

9. Miscellaneous

9.1. Publicity Rights. Govinity may identify Customer as a Govinity customer and use Customer's name and/or logo in its customer lists and marketing materials, including on its website. Any other uses of Customer's name and/or logo shall be subject to Customer's prior written consent. Govinity will comply with any trademark usage guidelines provided by Customer.

9.2. Notices. Legal notices required to be sent under this Agreement may be sent via certified mail, return receipt requested, to the physical address listed in the signature block, or by email to the Notices Email in the signature block. Either Party may amend its notices email address and/or physical address at any time in writing to the other Party.

9.3. Anti-corruption. Neither Govinity nor any of its employees or agents has offered or provided any illegal or improper payment, gift, or transfer of value in connection with this Agreement. The Parties will promptly notify each other if they become aware of any violation of any applicable anti-corruption laws in connection with this Agreement.

9.4. Force Majeure. Neither Party will be liable for any delay or failure to perform its obligations under this Agreement, due to any events beyond its reasonable control, including without limitation to acts of god, acts of governmental authority, war, riot, labor disputes, failures of performance by any third-party services, utilities, or equipment failures, or any other events beyond the Party's reasonable control. In the event a Party experiences the foregoing, and such event lasts for ten (10) or more days, the other Party may terminate this Agreement upon notice and without penalty.

9.5. Severability; Waiver. If any provision of this Agreement is found to be unenforceable or invalid, that provision will be limited or eliminated to the minimum extent necessary so that this Agreement will otherwise remain in full force and effect and enforceable. Any express waiver or failure to exercise

promptly any right under this Agreement will not create a continuing waiver or any expectation of non-enforcement.

9.6. Assignment. There are no third-party beneficiaries to this Agreement. Neither Party may assign or otherwise transfer this Agreement without the other Party's written consent, which consent may not be unreasonably withheld, conditioned, or delayed; provided however, that either Party may assign, without such consent but upon written notice, its rights and obligations under this Agreement to an Affiliate or in connection with a merger or sale involving all or substantially all of such Party's assets. Any other attempted assignment shall be void. This Agreement will bind and inure to the benefit of each Party and their respective heirs, successors, and permitted assigns. For purposes of this Section 9.6, "**Affiliate**" means any entity controlled by, controlling, or under common control with, a Party.

9.7. Independent Contractors. This Agreement does not create an agency, partnership, joint venture, or employment relationship, and neither Party has any authority to bind the other Party.

9.8. Governing Law and Jurisdiction. This Agreement will be governed by the laws of the state in which Customer is located, without regard to any of its conflict of laws principles. Any claim, suit, or cause of action arising out of or relating to this Agreement shall be brought in the state or federal courts located in such state, and the Parties irrevocably agree to the exclusive personal jurisdiction of such courts.

9.9. Complete Agreement. This Agreement represents the entire understanding of the Parties with respect to the subject matter of this Agreement, and supersedes any prior agreements, whether oral or in writing. Any additional or different terms in a purchase order or click-through agreement are expressly rejected by the Parties and are void. Any modification to this Agreement must be in writing and signed by an authorized representative of each Party. No third Parties are authorized to modify this Agreement. If there is a conflict between this Agreement and any other attached or incorporated document, the terms of this Agreement will control unless expressly stated otherwise. This Agreement may be signed in multiple counterparts, each of which shall be deemed an original and together shall be deemed a single agreement.

IN WITNESS, WHEREOF, the Parties have caused their duly authorized representatives to execute this Agreement as of the Effective Date:

GOVINITY: Govinity, Inc.	**CUSTOMER**: The City of American Canyon, CA
By: 	By: _____
Name: T. Thao Hill	Name: _____
Title: CEO and Co-founder	Title: _____
Date: 8-7-2026	Date: _____
Address: 834 Jones Street, #2 San Francisco, CA 94109	Address: _____ _____
Notices Email: founders@govinity.com	Notices Email: _____

EXHIBIT A

DPA

This Data Processing Addendum ("**DPA**") is incorporated into the Master Services Agreement ("**Agreement**") between Govinity, Inc. ("**Govinity**" or "**Processor**") and the applicable Govinity customer ("**Customer**" or "**Controller**"). In the event of a conflict between the terms of this DPA and those of the Agreement, the terms of this DPA shall control. Capitalized terms not defined herein shall have the meaning given them in the Agreement.

1. Definitions
   1.1. "**Business**" means an entity which, alone or jointly with others, determines the purposes and means of Processing Personal Data, which includes, as applicable, a "Business" as defined under Section 1798.140 of the CCPA, and any analogous variation of such term under U.S. Data Protection Laws.

   1.2. "**CCPA**" means the California Consumer Privacy Act of 2018, Cal. Civ. Code §1798.100 et. seq., and its implementing regulations.

   1.3. "**Customer Personal Information**" means any data processed by Processor on Controller's behalf, that identifies, relates to, describes, is capable of being associated with, or could reasonably be linked, directly or indirectly, with a particular consumer or household, to the extent that such information is protected as "personal information" (or an analogous variation of such term) under applicable U.S. Data Protection Laws.

   1.4. "**Instructions**" means the written, documented instructions issued by a Business to a Service Provider, and directing the same to perform a specific or general action with regard to Customer Personal Information (including, but not limited to, depersonalizing, blocking, deletion, and making available).

   1.5. "**Processing**" means any operation or set of operations which is performed on Customer Personal Information, encompassing the collection, recording, organization, structuring, storage, adaptation or alteration, retrieval, consultation, use, disclosure by transmission, dissemination or otherwise making available, alignment or combination, restriction or erasure of Customer Personal Information. The terms "**Process**," "**Processes**" and "**Processed**" will be construed accordingly.

   1.6. "**Sell**," "**Selling**," and "**Sale**" have the meaning set forth in Section 1798.140 of the CCPA.

   1.7. "**Service Provider**" means an entity that processes Customer Personal Information on behalf of Customer, which includes, as applicable, a "Service Provider" as defined in Section 1798.140 of the CCPA, and any analogous variation of such term under U.S. Data Protection Laws.

   1.8. "**Share**" "**Shared**" and "**Sharing**" have the meaning set forth in Section 1798.140 of the CCPA.

   1.9. "**U.S. Data Protection Laws**" means all laws and regulations of the United States of America, including but not limited to the CCPA, applicable to the processing of personal information (or an analogous variation of such term).

2. Roles of the Parties
   2.1. The Parties acknowledge and agree that with regard to the Processing of Customer Personal Information performed on behalf of Customer, Processor is a Service Provider and Customer is a Business. Processor receives Customer Personal Information pursuant to the business purpose of providing the Services to Customer in accordance with the Agreement.

3. Customer's Instructions

3.1. The Parties agree that the Agreement (including this DPA), together with Customer's use of the Services in accordance with the Agreement, constitute Customer's complete and final Instructions to Processor in relation to the Processing of Customer Personal Information, and additional instructions outside the scope of the Instructions shall require prior written agreement between the Parties.

4. Processor's Obligations

4.1. With respect to the Processing of Customer Personal Information by Processor on behalf of Customer, Processor agrees to the following:

4.1.1. Processor shall adhere to Customer's Instructions at all times regarding the Processing of Customer Personal Information.

4.1.2. Processor shall assist Customer in meeting its obligations under U.S. Data Protection Laws. Such assistance shall include:

4.1.2.1. Taking into account the nature of processing and the information available to Processor, by appropriate technical and organizational measures, insofar as this is reasonably practicable, to fulfill Customer's obligation to respond to consumer privacy requests pursuant to U.S. Data Protection Laws.

4.1.2.2. Taking into account the nature of processing and the information available to Processor, by assisting Customer in meeting its obligations in relation to the security of processing the Customer Personal Information and in relation to the notification of breach of security of the Processor's system in order to meet Customer's obligations under this DPA.

4.1.2.3. Providing necessary information to enable Customer to conduct and document data protection assessments pursuant to U.S. Data Protection Laws.

4.1.3. Processor will ensure that each person processing Customer Personal Information is subject to a duty of confidentiality with respect to the data.

4.1.4. At Customer's direction, Processor will delete or return all Customer Personal Information to Customer as requested at the end of the provision of services, unless retention of the Customer Personal Information is required by law.

4.1.5. Upon Customer's reasonable request, Processor will make available to the Customer all information in its possession necessary to demonstrate Processor's compliance with U.S. Data Protection Laws.

4.1.6. Processor will allow, and cooperate with, reasonable assessments by Customer or Customer's designated assessor; alternatively, Processor may arrange for a qualified and independent assessor to conduct an assessment of Processor's policies and technical and organizational measures in support of Processor's obligations under U.S. Data Protection Laws using an appropriate and accepted control standard or framework and assessment procedure for such assessments. The Processor shall provide a report of such assessment to Customer upon request.

4.1.7. If Processor engages any other person or entity to assist it in Processing Customer Personal Information on behalf of Customer, or if any other person engaged by Processor engages another person or entity to assist in Processing Customer Personal Information for that business purpose, Processor shall notify Customer of that engagement and give Customer the opportunity to object. The engagement shall be pursuant to a written contract binding the other person or entity to observe all the requirements set forth in this DPA.

4.1.8. Processor shall not Sell or Share Customer Personal Information.

4.1.9. Processor shall not retain, use, or disclose Customer Personal Information for any purpose other than business purposes specified in the Agreement.

4.1.10. Processor shall not retain, use, or disclose the Customer Personal Information outside of the direct business relationship between Processor and Customer.

4.1.11. Processor shall not combine the Customer Personal Information that Processor receives from, or on behalf of, Customer with personal information that it receives from, or on behalf of, another person or persons, or collects from its own interaction with the consumer.

5. Nature and Purpose of Processing

5.1. To provide the Services to Customer as further described in the Agreement.

6. Categories of Personal Information Processed

6.1. Any information provided by Customer or users of the Services, including without limitation full name, email address, telephone number, and physical address.

EXHIBIT B

Govinity Proposal for the City of American Canyon, CA

Dated August 7, 2026

TITLE

Water Treatment Plant Filter Media Replacement and Underdrain Repair Project (WA23-0200)

RECOMMENDATION

Adopt a Resolution: 1) Amending the FY2026-27 Capital Budget and increasing the WA23-0200 project budget from $350,000 to $600,000; 2) awarding a Construction Agreement to ERS Industrial, Inc. in the amount of $492,800; and 3) authorizing the City Manager to approve and execute contract change orders in an amount not to exceed the $600,000 project budget, in conjunction with the Water Treatment Plant Filter Media Replacement and Underdrain Repair Project (WA23-0200).

CONTACT

Erica Ahmann Smithies, P.E., Public Works Director
Norman Woods, Assistant Public Works Director

BACKGROUND & ANALYSIS

The City of American Canyon owns and operates the Water Treatment Plant (WTP), which provides treated water to meet the City's potable water demands. As part of the City's ongoing Capital Improvement Program, the City identified the need to replace the existing filter media and repair portions of the filter underdrain system to maintain the reliability and operational performance of the WTP.

The need to complete this work has also been identified through federal regulatory oversight. Following its November 6–7, 2025 inspection, the U.S. Environmental Protection Agency (EPA), Region 9, Enforcement and Compliance Assurance Division included the Water Treatment Plant Filter Media Replacement Project as a mandatory corrective action in its Safe Drinking Water Act (SDWA) Inspection Report. Completion of the filter media replacement is therefore necessary to address aging infrastructure, maintain treatment performance and reliability, and satisfy the mandatory corrective action identified by EPA.

The WA23-0200 – Water Treatment Plant Filter Media Replacement and Underdrain Repair Project with initial estimates, held an initial budget of $350,000. This amount was a planning-level budget based on a vendor quote and project criteria known at the time. Since the project was established, the scope and requirements have been further developed, including the corrective action identified

by EPA, and the City conducted a competitive bidding process to establish current market pricing for the work.

The city received two bids, one from NMI Industrial and ERS Industrial, Inc. Staff reviewed the bids for responsiveness and compliance with the project requirements and determined that ERS Industrial, Inc. is the lowest responsive and responsible bidder.

The ERS Industrial bid is $142,800 above the existing $350,000 project budget. However, the original budget was developed for planning purposes based on a vendor quote and the project information available at that time. The competitive bid therefore provides a more current and defined basis for establishing the construction budget.

The City received two bids, which are summarized below:

Bidder	Bid Amount
ERS Industrial, Inc.	$492,800.00
NMI Industrial	$1,286,153.37

Because the project involves repair of existing water treatment infrastructure, staff recommends an approximate 20% construction contingency to address unforeseen field conditions and potential changes that may be identified once the existing filter media is removed and the underdrain system is exposed. The recommended increase to cover contingency and salary expenses is $107,200, resulting in a total project authorization of $600,000.

The proposed project budget will need to be increased by $250,000 to accommodate the increase in the project amount and the proposed contingency.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Infrastructure: "Develop and maintain infrastructure resources to support sustainable growth."

FISCAL IMPACT

Approval of the recommended action would increase the budget for CIP Project No. WA23-0200 – Water Treatment Plant Filter Media Replacement and Underdrain Repair Project by $250,000 with a not to exceed amount of $600,000.

The additional appropriation of $250,000 will be funded by Fund 510, Water Operations. Prior to this increase, Fund 510 has an unassigned fund balance of approximately $6 million.

ENVIRONMENTAL REVIEW

The proposed action is categorically exempt from the California Environmental Quality Act (CEQA) pursuant to CEQA Guidelines Section 15301, Class 1 (Existing Facilities), which applies to the repair,

maintenance, and minor alteration of existing public facilities and mechanical equipment involving negligible or no expansion of existing use. The project consists of replacing filter media and repairing the existing underdrain system at the City's existing Water Treatment Plant and does not expand the existing use of the facility. Therefore, the project will have no significant environmental impact.

COMMUNICATION

Level 0: No Further Public Communication Needed
No communication plan needed as this is an internal operation at the water treatment plant.

ATTACHMENTS:

1. Resolution - Water Treatment Plant
2. ERS Industrial Cost Proposal
3. ERS Industrial Technical Proposal
4. ERS Industrial Intro

RESOLUTION NO. 2026 -

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON 1) AMENDING THE FY2026-27 CAPITAL BUDGET AND INCREASING THE WA23-0200 PROJECT BUDGET FROM $350,000 TO $600,000; 2) AWARDING A CONSTRUCTION AGREEMENT TO ERS INDUSTRIAL, INC. IN THE AMOUNT OF $492,800; AND 3) AUTHORIZING THE PUBLIC WORKS DIRECTOR TO APPROVE AND EXECUTE CONTRACT CHANGE ORDERS IN AN AMOUNT NOT TO EXCEED THE $600,000 PROJECT BUDGET, IN CONJUNCTION WITH THE WATER TREATMENT PLANT FILTER MEDIA REPLACEMENT AND UNDERDRAIN REPAIR PROJECT (WA23-0200)

WHEREAS, the City of American Canyon identified the need to replace the existing filter media and repair portions of the underdrain system at the City's Water Treatment Plant to maintain treatment reliability and performance; and

WHEREAS, following its November 6–7, 2025 inspection, the U.S. Environmental Protection Agency, Region 9, identified the Water Treatment Plant Filter Media Replacement Project as a mandatory corrective action in its Safe Drinking Water Act Inspection Report; and

WHEREAS, the City conducted a competitive bidding process for CIP Project No. WA23-0200 – Water Treatment Plant Filter Media Replacement and Underdrain Repair Project and received two bids; and

WHEREAS, staff determined that ERS Industrial, Inc. submitted the lowest responsive and responsible bid in the amount of $492,800; and

WHEREAS, staff recommend a construction contingency of $107,200, resulting in a total project authorization not to exceed $600,000; and

WHEREAS, the existing project budget of $350,000 requires an additional appropriation of $250,000 from Fund 510, Water Operations, to establish a total project budget of $600,000; and

WHEREAS, the project is categorically exempt from the California Environmental Quality Act pursuant to CEQA Guidelines Section 15301, Class 1, Existing Facilities, because the work consists of repair and rehabilitation of existing Water Treatment Plant infrastructure with no expansion of existing use.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of American Canyon hereby:

1. Awards the WA23-0200 – Water Treatment Plant Filter Media Replacement and Underdrain Repair Project agreement to ERS Industrial, Inc. in the amount of $492,800;

2. Authorizes a construction contingency of $107,200, for a total project authorization not to exceed $600,000;

3. Increases the budget for CIP Project No. WA23-0200 from $350,000 to $600,000 and appropriates an additional $250,000 from Fund 510, Water Operations;

4. Authorizes the City Manager, or designee, to execute the agreement and related documents, including approved change orders, within the total authorized project amount; and

5. Finds that the project is categorically exempt from CEQA pursuant to CEQA Guidelines Section 15301, Class 1, Existing Facilities.

PASSED, APPROVED, AND ADOPTED at a regularly scheduled meeting of the City Council of the City of American Canyon held on the ___ day of _____, 2026, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Pierre Washington, Mayor

ATTEST:

_____
Taresa Geilfuss, CMC, City Clerk

APPROVED AS TO FORM:

_____
Matthew T. Summers, City Attorney

Cost Proposal

July 29, 2026

Noni Thomas
American Canyon
4381 Broadway Street
American Canyon, CA 94503

QUOTE #: BID
PHONE #: 707 980-2445
EMAIL ADDRESS: nthomas@americancanyon.gov

Dear Noni:

ERS is pleased to submit its proposal for our turnkey service per the Technical proposal provided in this RFP. Quote is based on Prevailing wage rates and DIR requirements where applicable.

Scope of Supply:

- Perform work described in the attached technical proposal for the RFP WA-23-0200 Water Treatment Plant Filter Media Replacement & Underdrain Repair.

ERS Industrial Services Acknowledges (2) Addendums

- Any extra work/repairs outside of scope will be tracked on Time and Material

*Price **includes** required bonding.*
Price does not include any valves, instruments, or controls.
Disposal testing and transport to be executed in compliance with RCRA Subtitles C & D.

ERS is also willing the work with district to add or eliminate items associated with this quote.

PRICING: $492,800.00

RFP Valid for 90 days.

Our time and materials work are billed at $246.00 per man-hour, straight time, plus materials with a 25% margin. Price includes all applicable sales tax.

Please feel free to contact me should you need further information or any clarification. My contact information is: phone – cell (510) 552-3285; office (510) 770-0202; email – nradonich@ersfilter.com

If quote is accepted, please answer questions below, sign and return to Nradonich@ersfilter.com

Sincerely,

Nikolas Radonich
ERS Industrial Services Inc.
Principal / CFO

Qualifications and Experience

ERS Industrial has been in the business of rehabilitation filters and water treatment systems for 30 years. With a Class A and C-33 License we can provide a Turnkey solution for rehabilitation of water treatment filter and systems. ERS has specialized tools, trained personnel, and years of knowledge in rehabilitation of water filters. Services include:

- Providing full inspection reports, testing of filter media and written reports of filter conditions.
- Removing, Testing and disposal at approved landfills of removed filter media.
- Supplying and installing AWWA approved filter media.
- Preparing and coating of Steel and concrete.
- In House fabrication of underdrain components, laterals and surface wash components.
- Air Scour grid design fabrication and installation.
- Fixed grid surface wash design, fabrication, and installation.

1. Insurance
    a. Pollution Liability $3,000,000.00
    b. Professional Liability $3,000,000.00
2. Qualified manpower:
    a. Onsite Supervisor/Environmental Technician/Hole Watch.
    b. Certifications in Forklift/Reach Lift, Crane Operator, Confined Space & Rescue, and First Aid/CPR/AED.
3. Equipment and PPE:
    a. High-power industrial vacuum system.
    b. Ventilation fan for air circulation.
    c. Four gas monitors for pre-entry and continuous LEL testing.
    d. Air-purifying respirators (supplied air respirators available if required).
4. Safety Regulations:
    a. Confined Space:
        i. Tripod/winch for emergency evacuation.
        ii. Fall arrest harnesses with safety lanyards for all men.
        iii. Permit-required confined space entry permits as applicable.
        iv. Daily monitoring log.
    b. 2-Way radios for communication with in-tank personnel.
    c. Cellular phone as an emergency response tool.

ERS Personnel is trained and specialized for complex work associated in active Water treatment facility's

ERS has worked with multiple municipal water districts throughout California. ERS has also provided services for American Canyon Water district including media replacement of the filters outlined in this RFP back in 2001 & 2013.

For Reference, ERS Industrial Services has recently completed the following projects.

City Of San Diego Alvarado Water Treatment Facility. 2024-2026
$5,096,088.00
Media change out and underdrain repairs on (8) 194SQFT gravity filters.
Contact Gregory Cross
619-527-7460

City of Long Beach Water Treatment Facility. 2025-2026
$4,011,659.00
Media Removal, Cleaning, Concrete Coating / Repair and Underdrain Rehabilitation on (18) 480SQFT gravity filters.
Contact My Vu
562-570-2483

LA County Sanitary District Valencia WWTP 2025
$3,587,803.00
Media change out, Fabricate new underdrains and surface wash system and complete preparation and coatings of 14 240 SQFT Pressure Filters
Contact Alice Kuo
562-908-4288

Monterey Bay Aquarium Sand Filters
$173,930.00
Rehabilitate 8 Pressure filters located at Monterey Bay Aquarium
Contact Brian Maurer
831-644-7516

South Tahoe Utility's District
$1,261,870.00
Media Change out, fabricate new underdrain laterals, surface wash piping, nozzles and arms, install 14 AWWA butterfly valves and complete preparation and coating of interior and exterior of (2) 380 SQFT Pressure vessels.
Contact Megan Colvey
530-543-6266

ERS Industrial Services Inc. is in good standing with no legal or finical issues of any kind.

ERS has reviewed the Scope of work, Visited the site during the mandatory walk through, and reviewed past inspections we have performed on the filters and are prepared to perform the requested services.

Scope based on 2 filters at a time.

Below is a general progression of the work. All materials will be fabricated and supplied per the table in Section 3.3 Equipment and supplies.

1. Prepare all drawings and submittal documents for project
2. Remove filter media, Test and Dispose at an approved landfill.
3. Remove underdrain laterals, underdrain header, Surface wash piping and arms
4. Inspect condition of concrete and piping stubs through wall, provide written reports of findings. (If Coatings need repair or complete replacement, we can provide a separate Quote)
5. Fabricate and install new Underdrain Header in filters per OEM Drawings
6. Fabricate and install new surface wash piping and surface wash arms per OEM Drawings
7. Fabricate and install new PVC Laterals per OEM Drawings
8. Supply and install new filter Gravel, Garnet Sand, Silica Sand and Anthracite

* per the original design, the fiberglass trough will need to be removed to facilitate installation of the 18" underdrain header. Our experience that this is extremely difficult to do without damage due to the way they are installed and age of fiberglass. Our proposal is to fabricate the header in multiple size pieces and weld and touch up coatings in the filter basin. ERS is C-33 licensed for painting and prep and have performed this install on other projects. ERS will also inspect the surface wash and underdrain header spool that goes through the concrete wall for integrity. If the spool needs to be repaired or replaced a separate change order request will be provided.

** ERS will be providing the media based on the bed design from the change outs we performed in 2001 & 2013. The bed design is as follows and standard for Neptune Microfloc filter design.

10 Silica Gravel 1 1/2" x 3/4"
3 Silica Gravel 3/4" x 3/8"
3 Silica Gravel 3/8" x 3/16"
3 Silica Gravel 3/16" x #10
3 Garnet Sand #50
10 Silica Sand .45-.55 < 1.5 uc
19 Anthracite Dry 1.0 - 1.1 < 1.5 uc

Nikolas R Radonich
Principal/Chief Financial Officer
ERS Industrial Services, Inc.
2120 Warm Springs Court
Fremont, CA. 94539
Office Phone: 510-770-0202
Office Fax: 510-490-3024
Cell Phone: 510-552-3285
Email: nradonich@ersfilter.com

07/24/2026

American Canyon Water Treatment Plant Filter Media Replacement & Underdrain Repair
Transmittal Letter

Proposal By;
Nikolas R Radonich
Priciple / Chief Financial Officer
ERS Industrial Services, Inc.
2120 Warm Springs Court
Fremont, CA. 94539
Office Phone: 510-770-0202
Office Fax: 510-490-3024
Cell Phone: 510-552-3285
Email: nradonich@ersfilter.com

Statement of Offer;
ERS industrial Services ,Inc. is offering to complete the scope of work outlined in section 3 of the RFP WA23-0200. Quote is valid for 90 business days after proposal due date.

Conflict of Interest;
ERS Industrial Services Inc, or any of its personnel, do not have conflict of interest associated with the district or the work.

City Contract Terms;
ERS Industrial Services Inc, acknowledges the city's contract terms associated with this RFP.

Subcontractors;
No Subcontractors used in this project.

Nikolas Radonich
Principle / CFO

TITLE

Melvin Road Pavement and Sewer Improvements

RECOMMENDATION

Adopt a Resolution amending the Fiscal Year 2026-27 Capital Budget from $115,000 to $175,000 for the Melvin Road Pavement Rehabilitation Project (TR27-0100) and authorizing the City Manager to enter into an agreement with Coastland | DCCM for an amount not to exceed $194,446 for design services for the Melvin Road Pavement Rehabilitation Project (TR27-0100) and Melvin/Wilson Way Main Repair Project (WW27-0400).

CONTACT

Erica Ahmann Smithies, P.E., Public Works Director
Ron Ranada, P.E., Senior Civil Engineer

BACKGROUND & ANALYSIS

The City of American Canyon received one-time federal funding in the amount of $1,333,000 for the Melvin Road Pavement Rehabilitation Project (TR27-0100) to rehabilitate approximately 3,225 linear feet of roadway along Melvin Road, Wilson Way, Poco Way, and James Road.

The proposed project will rehabilitate deteriorated pavement using a combination of grind-and-overlay, full-depth asphalt concrete paving, and pavement stabilization treatments, as appropriate based on existing pavement conditions. The project will also include new pavement striping and signage, including parking delineation, centerlines, and bicycle facilities.

In conjunction with the planned pavement rehabilitation, the City has identified a need to rehabilitate existing sewer mains along Melvin Road and Wilson Way as part of the Melvin/Wilson Way Main Repair Project (WW27-0400). Because the sewer improvements require work within the roadway, they must be completed before the pavement rehabilitation to avoid disturbing newly constructed pavement. Coordinating the design of the two Capital Improvement Program projects will allow the City to appropriately sequence the sewer improvements ahead of the paving work and minimize conflicts, duplication of effort, and future impacts to the roadway.

Construction of the Melvin/Wilson Way Main Repair Project is anticipated to be coordinated with other planned sewer improvements in the area, including the SS4 and Andrew Road Sewer projects.

This approach will allow the City to coordinate construction activities while ensuring the necessary sewer improvements within the Melvin Road corridor are completed prior to pavement rehabilitation.

City staff requested a proposal from Coastland | DCCM (Coastland), a firm included on the City Council-approved 2023 on-call professional services consultant list, to provide design and engineering services for both projects. Coastland was selected for this assignment based on its familiarity with the project area and prior work for the City, including preparation of the plans for the recently completed Melvin Road Sidewalk and Storm Drain Project. This prior experience provides continuity between the projects and allows the consultant to build upon existing survey, design, and field information already developed for the corridor.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Infrastructure: "Develop and maintain infrastructure resources to support sustainable growth."

FISCAL IMPACT

Coastland proposes to complete the design and engineering services for both projects on a time-and-materials basis for a total amount not to exceed $194,446. Of this amount, $153,136 is attributable to the Melvin Road Pavement Rehabilitation Project (TR27-0100) and $41,310 is attributable to the Melvin/Wilson Way Main Repair Project (WW27-0400).

The estimated total project budget for the Melvin Road Pavement Rehabilitation Project is $1,788,750; however, only $115,000 was allocated in the Fiscal Year 2026-27 budget for design. An additional $60,000 is requested from Measure U Fund 211, increasing the available design budget to $175,000. The additional funding will provide sufficient budget for the consultant design services and associated City staff costs.

The Fiscal Year 2026-27 budget includes $100,000 for design of the Melvin/Wilson Way Main Repair Project, which is sufficient to fund the $41,310 consultant design cost and associated City staff costs. No additional appropriation is required for WW27-0400 at this time.

ENVIRONMENTAL REVIEW

The Melvin Road Pavement Rehabilitation (TR27-0100) and Melvin/Wilson Way Main Repair Project (WW27-0400) are categorically exempt from CEQA per Section 15301c, Existing Facilities.

COMMUNICATION

Level 1: Minimal Communication
This is for design services only at this time and public outreach will be minimal until the construction phase.

ATTACHMENTS:

1. Resolution - Melvin Road Award
2. Project Map

RESOLUTION NO. 2026-

RESOLUTION AMENDING THE FISCAL YEAR 2026-27 CAPITAL BUDGET FROM $115,000 TO $175,000 FOR THE MELVIN ROAD PAVEMENT REHABILITATION PROJECT (TR27-0100) AND AUTHORIZING THE CITY MANAGER TO ENTER INTO AN AGREEMENT WITH COASTLAND | DCCM FOR AN AMOUNT NOT TO EXCEED $194,446 FOR DESIGN SERVICES FOR THE MELVIN ROAD PAVEMENT REHABILITATION PROJECT (TR27-0100) AND MELVIN/WILSON WAY MAIN REPAIR PROJECT (WW27-0400)

WHEREAS, the Melvin Road Pavement Rehabilitation Project (TR27-0100) will rehabilitate pavement and provide associated roadway improvements along Melvin Road, Wilson Way, Poco Way, and James Road; and

WHEREAS, the City has also identified a need to rehabilitate existing sewer mains along Melvin Road and Wilson Way as part of the Melvin/Wilson Way Main Repair Project (WW27-0400); and

WHEREAS, the sewer improvements must be completed prior to pavement rehabilitation to avoid disturbing newly rehabilitated pavement, and coordinating the design of the two projects will allow the City to appropriately sequence the improvements and minimize conflicts and duplication of effort; and

WHEREAS, construction of the Melvin/Wilson Way Main Repair Project is anticipated to be coordinated with other planned sewer improvements in the area, including the SS4 and Andrew Road Sewer projects; and

WHEREAS, Coastland | DCCM (Coastland) is included on the City Council-approved 2023 on-call professional services consultant list and previously prepared the plans for the Melvin Road Sidewalk and Storm Drain Project, providing familiarity with the project area and continuity with recently completed improvements; and

WHEREAS, City staff requested a proposal from Coastland to provide professional engineering and design services for the Melvin Road Pavement Rehabilitation Project (TR27-0100) and Melvin/Wilson Way Main Repair Project (WW27-0400); and

WHEREAS, Coastland submitted a proposal to provide professional engineering and design services for both projects for an amount not to exceed $194,446, of which $153,136 is attributable to the Melvin Road Pavement Rehabilitation Project and $41,310 is attributable to the Melvin/Wilson Way Main Repair Project; and

WHEREAS, the adopted Fiscal Year 2026-27 Capital Budget includes $115,000 for design of the Melvin Road Pavement Rehabilitation Project, and an additional appropriation of $60,000 from Measure U Fund 211 is necessary to increase the available design budget to $175,000 to provide sufficient funding for consultant design services and associated project costs; and

WHEREAS, there are sufficient funds in Measure U Fund 211 to accommodate the $60,000 budget increase to the Melvin Road Pavement Rehabilitation Project (TR27-0100); and

WHEREAS, the adopted Fiscal Year 2026-27 Capital Budget includes $100,000 for design of the Melvin/Wilson Way Main Repair Project, which is sufficient to fund the proposed consultant design services and associated project costs; and

WHEREAS, the Melvin Road Pavement Rehabilitation (TR27-0100) and Melvin/Wilson Way Main Repair Project (WW27-0400) are categorically exempt from CEQA per Section 15301c, Existing Facilities.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of American Canyon hereby amends the Fiscal Year 2026-27 Capital Budget from $115,000 to $175,000 for the Melvin Road Pavement Rehabilitation Project (TR27-0100) and authorizes the City Manager to enter into an agreement with Coastland | DCCM for an amount not to exceed $194,446 for design services for the Melvin Road Pavement Rehabilitation Project (TR27-0100) and Melvin/Wilson Way Main Repair Project (WW27-0400).

PASSED, APPROVED and **ADOPTED** at a regularly scheduled meeting of the City Council of the City of American Canyon held on the 15th day of September, 2026 by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Pierre Washington, Mayor

ATTEST:

_____
Taresa Geilfuss, CMC, City Clerk

APPROVE AS TO FORM:

_____
Matthew T. Summers, City Attorney



Sources: Esri, Vantor, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community, USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography

Produced by Napa County GIS

County of Napa

Printed On: 4/11/2026

0 2.25 4.5 9 mi

Disclaimer: This map was prepared for info... purposes only. No liability is assumed f... accuracy of the data delineated hereon.

TITLE

Support and Funding Commitment for State Route 29 Corridor Improvement Project

RECOMMENDATION

Adopt a Resolution supporting the American Canyon State Route 29 Corridor Improvement Project and committing up to $5,000,000 in funding for future project phases.

CONTACT

Jason Holley, City Manager
Danielle Schmitz, Executive Director, Napa Valley Transportation Agency

BACKGROUND & ANALYSIS

The Napa Valley Transportation Authority (NVTA), in cooperation with the California Department of Transportation (Caltrans) and the City of American Canyon (City), is proposing to improve State Route 29 (SR 29) within American Canyon. The "American Canyon State Route 29 Corridor Improvement Project" (Project) seeks to address various operational and safety needs along the SR 29 corridor. The current phase is wrapping up and with construction activities around the corner, NVTA is seeking funding commitments and continued local support from American Canyon.

Project Initiation Document (PID) Phase (2021-2024)

Although substantial planning efforts were undertaken in the early 2010's, the Project achieved compliance with the State's Climate Action Plan for Transportation Infrastructure (CAPTI) (Attachment 7) when NVTA completed the *SR 29 Comprehensive Multimodal Corridor Plan* (CMCP) in May 2020 (Attachment 6).

Following completion of the CMCP, NVTA completed the *SR 29 Project Study Report – Project Development Support* (PSR-PDS), also referred to as the "project initiation document" (PID) (Attachment 5). The SR 29 PSR-PDS aligns with CMCP Guidelines - making it eligible for SB 1 funding - and adheres to Caltrans' Project Development Procedures Manual by evaluating high-evel project alternatives, defining scope, cost, and schedule for each option. Completion of the PID resulted in a critical milestone when Caltrans issued the Project ID (EA 04-4Q010) thereby cementing the Project's bonafides within the vast, complicated array of statewide transportation funding programs.

Project Approval and Environmental Document (PAED) Phase (2024-2027)

The PSR-PDS contemplates two alternatives, but as explained to Council on February 3, only Alternative 1 is moving forward through environmental review. Alternative 1 enhances traffic signals with transit signal priority along with "queue jump lanes", and signal interconnection to optimize traffic flow and operational efficiency. It also includes enhanced pedestrian crossings, transit stops, relocated overhead utilities, new bicycle and pedestrian facilities (i.e. Class I trail) and landscaping.

Alternative 1 does not include roundabouts. Neither the CMCP nor the PSR-PSD contains grade-separated pedestrian crossings; however, nothing precludes the City from locally pursuing them once the Project is complete.

Consistent with Cooperative Agreement No. 04-2957 (Attachment 4), N VTA is nearing completion of the PAED phase. This phase produces two key deliverables - a "Project Report" securing Caltrans approval and an environmental document ensuring compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). The PAED phase is scheduled to conclude in Spring 2027.

Preliminary Engineering (PE) Phase and Right-Of-Way/Utility Relocation (ROW) Phase (2027-2029)

The next two phases of the Project (i.e. PE Phase and ROW Phase) are poised to commence upon conclusion of the PAED Phase subject to available funding. These phases run in tandem and once complete and funding is secured, then construction can begin.

The overall proposed Project funding strategy is shown on Attachment1, Ex. A:

NVTA is requesting American Canyon demonstrate its support for the Project by offering a commitment of $5.0M during the various upcoming phases (Attachment 2). The request amount represents less than 10% of the total cost. Staff recommends the Council adopts a Resolution of support and funding commitment (Attachment 1). This Resolution will be included in grant applications later this fall.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Transportation: "Improve the transportation network within the City to alleviate congestion and enhance the quality of life for the community."

FISCAL IMPACT

The estimated project cost including the current PAED phase and all other future phases is $67.7M. To date, the City has contributed $1.0M of the $4.7M spent. Prospectively, American Canyon is being asked to contribute another $5M for a total of $6M (or 9% of the cost). By way of reference, most state and federal transportation programs require at least 20% local match - or more than 2x what is being asked of American Canyon.

The Recommended Action commits the City to contributing $5.0 M to future phases of the Project. The most likely source of funding is Traffic Impact Fee (Fund 320). The TIF Fund has a Fund Balance of approximately $5.1M. However, the TIF Fund has a large encumbrance ($4.9M for the Rio Del Mar Extension Project TR26-0200) and thus, minimal remaining unrestricted balance. Another Council item tonight seeks to advance additional revenue collection in the TIF program through the update of traffic impact fees.

The General Fund could also be a source of funding - especially if voters approve additional sales tax revenue this fall.

The exact timeline for making these payments is unknown and dependent upon receipt of state and federal funding.

ENVIRONMENTAL REVIEW

The Recommended Action (approving a letter of support and funding commitment) is not a "project" under CEQA (GC 15378(b)).

NVTA is the lead agency for the Project and is currently preparing an Initial Study/Mitigated Negative Declaration (IS/MND). The MND will be circulated for public comment prior to the NVTA Board taking action to approve the Project.

COMMUNICATION

Level 4: Robust Communication & Engagement
Below is list of community engagement and outreach activities undertaken by NVTA and the City over the past 6 years, which has includes the input of more than 200 community members:

SR29 CMCP Phase
November 12, 2019 - Public Meeting/Workshop
April 23, 2020 - Public Meeting/Workshop

PID Phase
April 20, 2021 - Council Update
October 4, 2021 - Public Meeting/Workshop
April 20, 2022 - Public Meeting/Workshop

PA&ED Phase
February 4, 2025 - Council Update
April 30, 2025 - Public Meeting/Workshop
February 3, 2026 - Council Update
May 27, 2026 - Public Meeting/Workshop

ATTACHMENTS:

1. Resolution
2. NVTA Funding Request
3. NVTA Presentation
4. Co-Operative Agreement No. 04-2957
5. SR-29 PSR-PDS
6. SR-29 CMCP
7. CAPTI 2.0 (2025)

RESOLUTION NO. 2026-_____

RESOLUTION OF THE CITY COUNCIL OF THE CITY OF AMERICAN CANYON SUPPORTING THE AMERICAN CANYON STATE ROUTE 29 CORRIDOR IMPROVEMENT PROJECT AND COMMITTING UP TO $5,000,000 IN FUNDING FOR FUTURE PROJECT PHASES

WHEREAS, the Napa Valley Transportation Authority (NVTA), in cooperation with the California Department of Transportation (Caltrans) and the City of American Canyon (City), is developing the American Canyon State Route 29 Corridor Improvement Project (Project) to address operational, safety, transit, bicycle, and pedestrian deficiencies along State Route 29 within American Canyon; and

WHEREAS, NVTA completed the State Route 29 Comprehensive Multimodal Corridor Plan in May 2020 and subsequently completed the Project Study Report-Project Development Support, establishing the Project's preliminary scope, cost, and schedule and advancing it into the Caltrans project development process; and

WHEREAS, NVTA is advancing Alternative 1, signalization improvements, through the Project Approval and Environmental Document phase, including transit signal priority, queue-jump lanes, enhanced pedestrian crossings, transit stop improvements, relocated overhead utilities, a Class I bicycle and pedestrian facility, and landscaping; and

WHEREAS, the Project Approval and Environmental Document phase is scheduled for completion in spring 2027, after which final design, right-of-way acquisition, and utility relocation may proceed, subject to completion of environmental clearance and the availability of funding; and

WHEREAS, NVTA will lead final design, right-of-way acquisition, and utility relocation and will be responsible for securing the majority of the funding necessary to deliver the Project; and

WHEREAS, the preliminary total cost for the current and future phases of the Project is approximately $67.7 million, of which approximately $4.7 million has been programmed to date; and

WHEREAS, the City has actively participated as a Project partner with NVTA and Caltrans, has contributed approximately $1.0 million toward the PA&ED phase, and proposes an additional contribution of up to $5.0 million, bringing the City's total participation to approximately $6.0 million, or approximately nine percent of the preliminary total Project cost; and

WHEREAS, a documented local funding commitment will demonstrate continued City support, help NVTA compete for state and federal funds, and reduce the risk of a delay between environmental approval and the remaining pre-construction phases; and

WHEREAS, supporting the Project is consistent with the City Council priority to improve the City's transportation network, alleviate congestion, and enhance quality of life in the community.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of American Canyon hereby resolves as follows:

1. The City Council supports continued development of the American Canyon State Route 29 Corridor Improvement Project and NVTA's pursuit of regional, state, and federal funding for the Project.

2. The City commits to provide up to $5,000,000 for eligible future Project costs consistent with the proposed funding program shown in Ex. A.

3. The City Manager or designee is authorized to negotiate and execute the funding agreement or agreements described in Section 3, subject to approval as to form by the City Attorney and provided that the City's total additional contribution does not exceed $5,000,000 without further City Council approval.

PASSED, APPROVED and ADOPTED at a regularly scheduled meeting of the City Council of the City of American Canyon held on the 15th day of September 2026, by the following vote:

AYES:
NOES:
ABSTAIN:
ABSENT:

_____
Pierre Washington, Mayor

ATTEST:

_____
Taresa Geilfuss, CMC, City Clerk

APPROVED AS TO FORM:

_____
Teresa L. Highsmith, City Attorney

Exhibit A – Proposed Funding Program

SR 29 American Canyon Corridor Improvements Funding by Phase				
Phase	*Funding Source*	*Amount ($1,000s)*	*Status*	*FY*
PAED	OBAG 3	3,000	committed	23-24
	City of American Canyon	1,000	committed	23-24
	RM 3	700	committed	23-24
	PAED Subtotal	**4,700**		
PS&E	Congressional Earmark/RM3	2,000	uncommitted	26-27
	City of American Canyon	2,000	committed	26-27
	OBAG 4	2,000	uncommitted	26-27
	PS&E Subtotal	**6,000**		
ROW/UTIL	RM 3	1,000	uncommitted	28-29
	City of American Canyon	3,000	committed	28-29
	ROW/Utilities Subtotal	**4,000**		
CON	RM 3	3,000	uncommitted	28-29
	SS4A	10,000	uncommitted	28-29
	Measure U	3,000	uncommitted	28-29
	SB 1	30,000	uncommitted	28-29
CON Support	Measure U	7,000	uncommitted	28-29
	Construction Subtotal	**$53,000**		
	Total Project Cost	**$67,700**		

NAPA VALLEY TRANSPORTATION AUTHORITY

June 18, 2026

Jason Holley
City Manager
City of American Canyon
4381 Broadway Street, Suite 201
American Canyon, CA 94503

Subject: Request for City of American Canyon Funding Contribution – State Route (SR) 29 American Canyon Corridor Improvements Project

Dear Mr. Holley:

On behalf of the Napa Valley Transportation Authority (NVTA), I am writing to formally request the City of American Canyon contribute a total of $5,000,000 toward the remaining phases of the SR 29 American Canyon Corridor Improvements Project. This request is proposed in two parts: an initial $2,000,000 contribution toward the Plans, Specifications, and Estimate (PS&E) phase, anticipated to begin in early 2027, and a future $3,000,000 contribution toward right of way and utility relocation activities, currently targeted to begin in early 2029. With an estimated total project delivery cost of $68 million, this contribution would bring the City's total project investment to $6 million, under 10 percent of the total project cost. The remaining approximately 90 percent is anticipated to be funded through NVTA, regional, state, and federal sources.

These funding commitments are a critical component of NVTA's overall strategy to demonstrate to future state, federal, and regional funding partners that local and regional agencies are fully committed to advancing the project and have established a viable funding approach to complete the remaining pre-construction phases necessary to position the project for construction. These elements of work will make the project "shovel ready", making the project highly competitive for future construction funding as it demonstrates not only local commitment but also a significant reduction in project risks. As such, NVTA requests that the City Council consider the initial $2,000,000 PS&E funding contribution at its September 15, 2026 City Council meeting.

The SR 29 American Canyon Corridor Improvements Project is a regionally significant transportation project intended to improve safety, mobility, multimodal access, transit reliability, and corridor operations along SR 29 between Napa Junction Road and American Canyon Road. This segment of SR 29 serves as a critical connection for American Canyon residents, workers, businesses, transit riders, freight movement, emergency access, and regional travel between Napa and Solano Counties, and the greater Bay Area. The project is being advanced by NVTA in close coordination with the City of American Canyon and Caltrans.

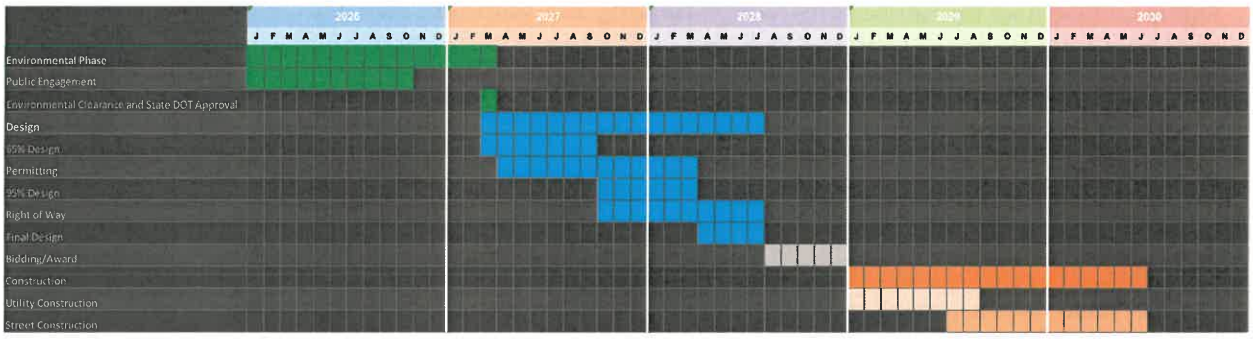
NAPA VALLEY TRANSPORTATION AUTHORITY

The City has been an active partner in the development of the project, including coordination on corridor challenges, project objectives, and the preferred alternative currently being advanced. The current project concept includes intersection and operational improvements, signal upgrades and modernization, transit-priority enhancements, and multimodal improvements for pedestrians and bicyclists. Together, these improvements are intended to address longstanding congestion, improve travel time reliability, enhance safety for all users, and support more efficient local and regional mobility along this critical corridor.

As the primary north-south transportation spine through American Canyon and the gateway to Napa County, SR 29 plays a vital role in connecting residents, workers, students and visitors to schools, employment centers, transit services, neighborhoods, and essential services. Improvements to the corridor will help strengthen local circulation, improve access to businesses and commercial areas, support emergency response and evacuation reliability, and enhance overall quality of life for the community. Collectively, these investments will transform the corridor, providing a safer, more reliable, and more accessible transportation facility that better serves the City's current and future transportation needs.

NVTA is currently targeting completion of the Project Approval and Environmental Document phase in March 2027. Following completion of this phase, the project will move into PS&E and right-of-way, which includes utility coordination activities. These pre-construction phases are necessary to advance the project toward construction readiness and position it for current and future competitive state, federal, and regional construction funding opportunities.

As noted above, NVTA's current request is for a $2,000,000 City contribution toward PS&E, with a future anticipated request of $3,000,000 toward right of way and utility relocation activities. The proposed project schedule and funding contribution breakdown are summarized in the tables below.



NAPA VALLEY TRANSPORTATION AUTHORITY

SR 29 American Canyon Corridor Improvements Funding by Phase				
Phase	Funding Source	Amount ($1,000s)	Status	FY
PAED	OBAG 3	3,000	committed	23-24
	City of American Canyon	1,000	committed	23-24
	RM 3	700	committed	23-24
PS&E	Congressional Earmark/RM3	2,000	uncommitted	26-27
	City of America Canyon	2,000	uncommitted	26-27
	OBAG 4	2,000	uncommitted	26-27
ROW/UTIL	RM 3	1,000	uncommitted	26-27
	City of American Canyon	3,000	uncommitted	28-29
CON	RM 3	3,000	uncommitted	28-29
	SS4A	10,000	uncommitted	28-29
	Measure U	3,000	uncommitted	28-29
	SB 1	30,000	uncommitted	28-29
CON Support	Measure U	7,000	uncommitted	28-29
	Total Project Cost	**$67,700**		

Project Funding Share - All Phases			
Source	**Amount ($1,000)**	**Total ($1,000)**	**% Share**
NVTA			
Measure U	$ 10,000		
RM3	$ 6,200		
		$ 16,200	24%
City of American Canyon			
Local	$ 6,000		
		$ 6,000	9%
Grant Funding			
OBAG 3	$ 3,000		
Earmark	$ 500		
OBAG 4	$ 2,000		
SS4A	$ 10,000		
SCCP/LPP	$ 30,000		
		$ 45,500	67%
	Total Project Cost	**$ 67,700**	**100%**

The project scope, schedule, and cost estimates will continue to be refined through the current and remaining phases of the project. Accordingly, all information included in this request is based on the best information available at this time and subject to change as project development advances.

NAPA VALLEY TRANSPORTATION AUTHORITY

The City's participation would further demonstrate the local and regional commitment needed to compete for future construction funding and would help show that the project is deliverable, locally supported, and ready to advance when construction funding becomes available.

NVTA respectfully requests that the City of American Canyon City Council consider the following actions at its September 15, 2026 meeting:

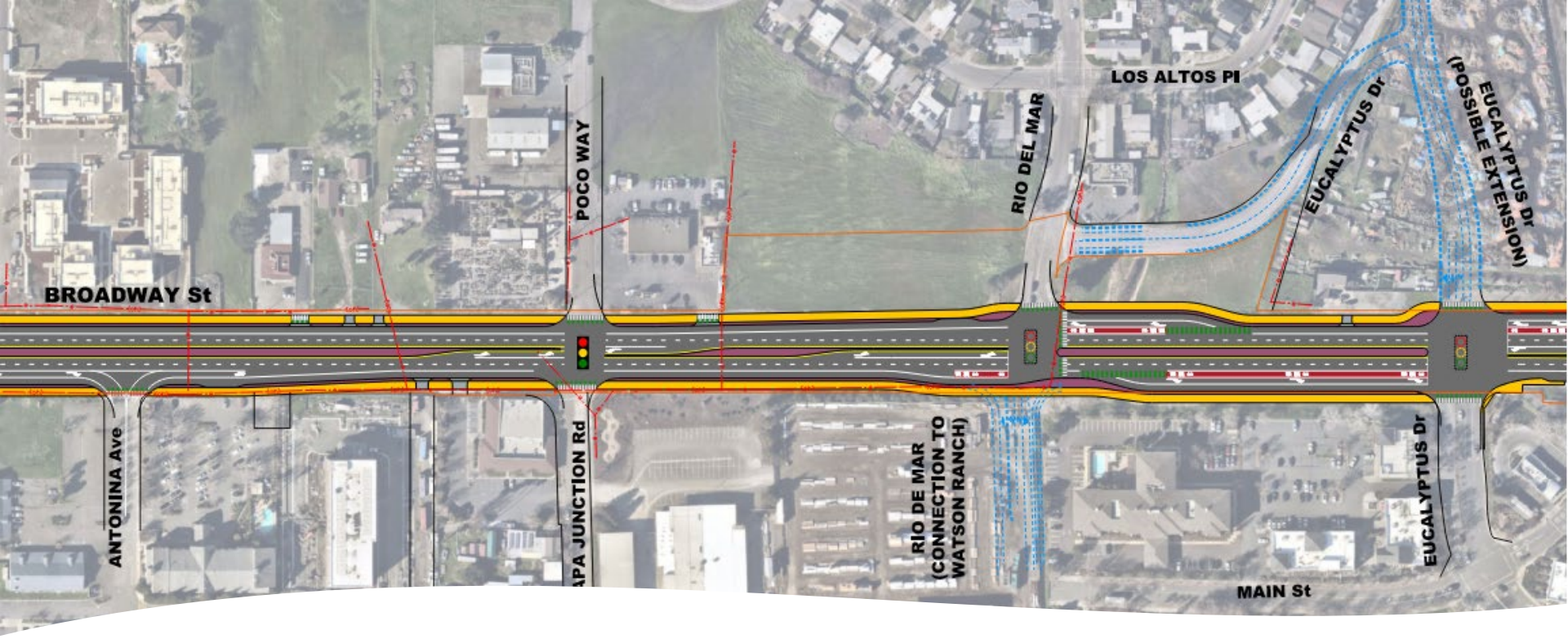
1. NVTA's project funding strategy and request for a City funding contribution toward the SR 29 American Canyon Corridor Improvements Project;
2. Authorize a City contribution of $2,000,000 toward PS&E for the project;
3. Authorize the City Manager, or designee, to negotiate and execute a cooperative funding agreement or similar agreement with NVTA; and
4. Direct City staff to coordinate with NVTA on the final funding plan, project schedule, agreement terms, and future project development activities.

NVTA appreciates the City's continued partnership on this important project. The improvements are intended to benefit American Canyon residents, businesses, transit riders, pedestrians, bicyclists, and regional travelers by improving mobility, safety, access, and reliability along a critical corridor through the City.

Please contact me at 707-259-5968 or dschmitz@nvta.ca.gov if you have any questions or would like to discuss this request further.

Sincerely,

Danielle Schmitz
Executive Director
Napa Valley Transportation Authority



AMERICAN CANYON SR-29 CORRIDOR IMPROVEMENTS: PROJECT UPDATE & FUNDING STRATEGY

- **September 15, 2026**
- Danielle Schmitz
  - Executive Director
- Grant Bailey, P.E.
  - Program Manager - Engineer

CITY OF AMERICAN CANYON

NVTA
NAPA VALLEY TRANSPORTATION AUTHO

American Canyon SR 29 Corridor

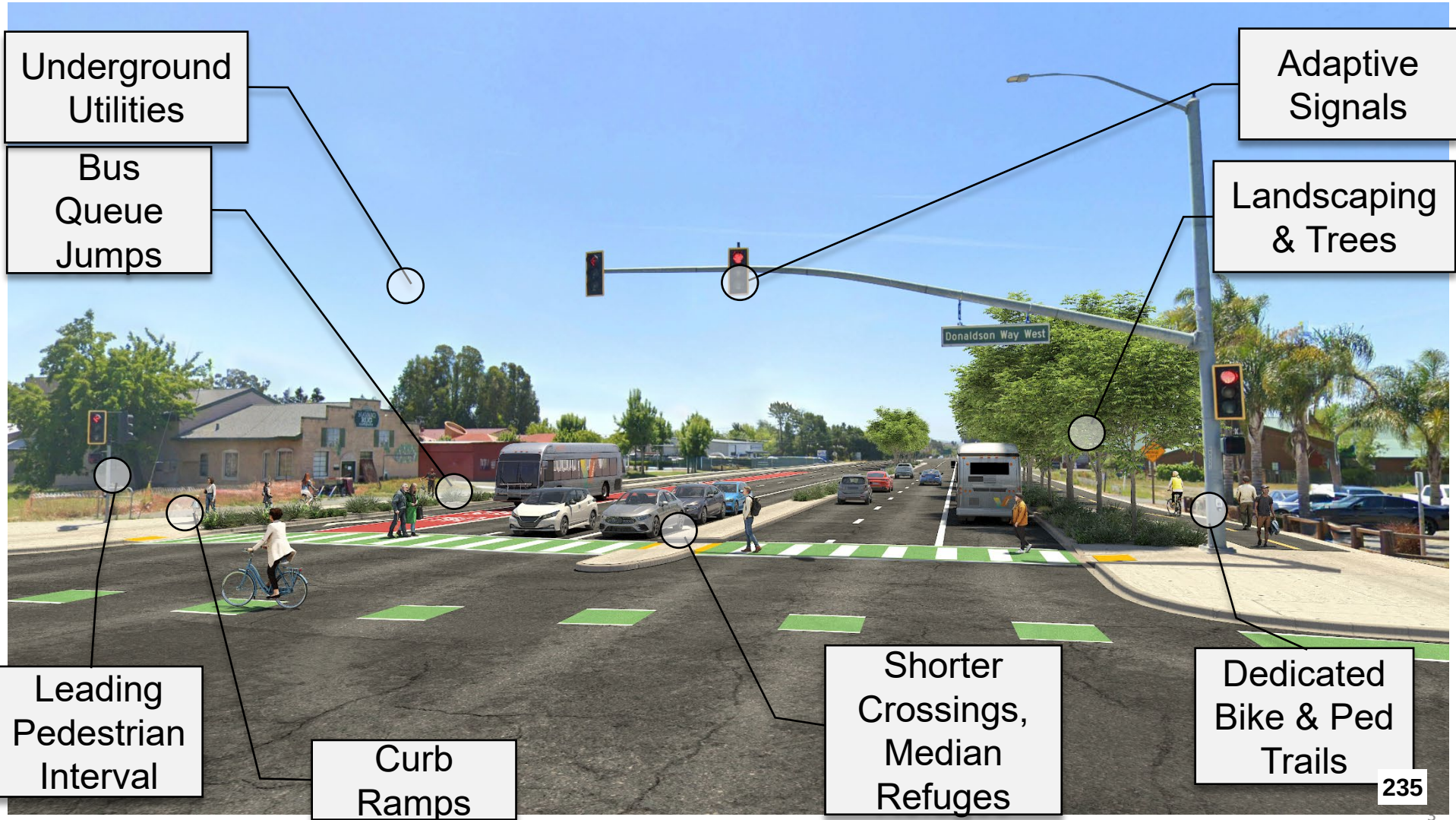
Purpose of Today's Update

- **Project Scope Review**
- **Update on Project Status Since February 2026 Council Meeting & Upcoming Milestones**
- **Project Schedule**
- **Funding Strategy Recommendation**

American Canyon SR 29 Corridor

NVTA
NAPA VALLEY TRANSPORTATION AUTHORITY

Project Scope



American Canyon SR 29 Corridor

NVTA
NAPA VALLEY TRANSPORTATION AUTHORITY

Since We Last Met

- **Selected Preferred Alternative**
  - Signalization improvements selected as build alternative in April 2026
- **Public Workshop #2 held in May 2026**
  - Public Feedback Received:
    - Class I trail composition
    - Mobility hub location
    - General Input
- **Upcoming Milestones:**
  - January 2027 – Release Draft Environmental Document
  - March 2027 – Approve Final ED and Project Report
  - April 2027 – Kickoff design phase work



Project Schedule

NOW–MAR 2027

Environmental clearance

Obtain environmental clearance and Caltrans project approval.

2027–2028

Final design

Prepare plans, specifications and estimate.

2028-2029

Right-of-way & utilities

Acquire property interests and relocate utilities.

2029 - 2030

Construction

Construct the project – funding dependent.



American Canyon SR 29 Corridor

NVTA
NAPA VALLEY TRANSPORTATION AUTHORITY

Project Funding Strategy

SR 29 American Canyon Corridor Improvements Funding by Phase				
Phase	Funding Source	Amount ($1,000s)	Status	FY
PAED	OBAG 3	3,000	committed	23-24
	City of American Canyon	1,000	committed	23-24
	RM 3	700	committed	23-24
	PAED Subtotal	**4,700**		
PS&E	Congressional Earmark/RM3	2,000	uncommitted	26-27
	Local	2,000	uncommitted	26-27
	OBAG 4	2,000	uncommitted	26-27
	PS&E Subtotal	**6,000**		
ROW/UTIL	RM 3	1,000	uncommitted	28-29
	Local	3,000	uncommitted	28-29
	ROW/Utilities Subtotal	**4,000**		
CON	RM 3	3,000	uncommitted	28-29
	SS4A	10,000	uncommitted	28-29
	Measure U	3,000	uncommitted	28-29
	SB 1	30,000	uncommitted	28-29
CON Support	Measure U	7,000	uncommitted	28-29
	Construction Subtotal	**53,000**		
	Total Project Cost	**$67,700**		

Funding Request

$5 million for design and right-of-way phases

The request is structured to match the two pre-construction funding needs that follow environmental clearance.

$2M

Final Design (PS&E)

Needed as final design begins in 2027

$3M

Right-of-way & utility relocation

Anticipated for early 2029

Combined with the $1 million already invested, the City's total project participation would be approximately $6 million.

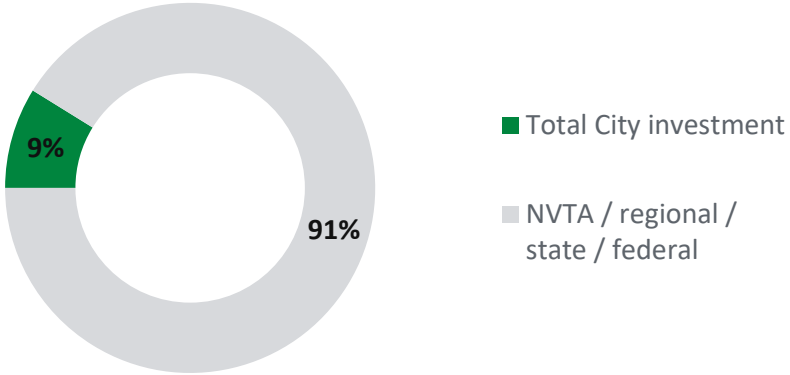
American Canyon SR 29 Corridor

Relative City Share

Current project estimate

~$68M

$15M pre-construction + $53M construction



~9%

Total anticipated City share

~91%

$62M expected from NVTA and regional, state and federal partners

Every $1 of total City investment is paired with about $10.33 from other partners.

Requested Council Direction

Support a $5 million City contribution to NVTA's State Route 29 American Canyon Corridor Improvements Project:

- $2 million for final design in 2027; and
- $3 million for right of way and utility relocation activities in 2029.

RESOLUTION NO. 2024-03

A RESOLUTION AUTHORIZING THE CITY MANAGER TO EXECUTE COOPERATIVE AGREEMENT 04-2957 WITH CALTRANS AND NAPA VALLEY TRANSPORTATION AUTHORITY FOR PROJECT APPROVAL AND ENVIRONMENTAL DOCUMENT PHASE SERVICES ASSOCIATED WITH THE AMERICAN CANYON STATE ROUTE 29 CORRIDOR IMPROVEMENT PROJECT

WHEREAS, the Napa Valley Transportation Authority (NVTA), in cooperation with the California Department of Transportation (Caltrans) and the City of American Canyon (City), proposes roadway improvements along State Route 29 (SR 29) within much of the City limits to address various operational and safety needs along the SR 29 corridor; and

WHEREAS, the proposed SR29 corridor improvements will include transit, bicycle, pedestrian infrastructure and beautification; and

WHEREAS, in 2023 Caltrans and NVTA completed a project initiation document (PID) focusing on a segment of the SR 29 corridor in American Canyon between Napa Junction Road and American Canyon Road; and

WHEREAS, the next stage of project development is the Project Approval and Environmental Document (PA&ED) phase. This phase of work will further refine the build alternatives identified during the PID, select a preferred build alternative, and produce two key project deliverables - a Project Report securing Caltrans approval and an environmental document ensuring compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA); and

WHEREAS, when a project exists in Caltrans right of way, a cooperative agreement is necessary between all partes to define roles and responsibilities around project delivery, funding and oversight; and

WHEREAS, NVTA will be taking lead on the project with Caltrans in regard to establishing the scope of work and securing financial resources to fund the work while the City's responsibilities, as outlined in the agreement, will be primarily focused on project coordination with NVTA, community outreach, public meetings, and circulation of environmental documentation; and

WHEREAS, in Cooperative Agreement 04-2957 Caltrans will commit $955,000 of settlement funding previously paid by the City to Caltrans pursuant to a 2006 Settlement Agreement and Release to support the PA&ED phase of the project; and

WHEREAS, NVTA has secured and committed an additional $750,000 in Regional Measure 3 funding and $3,000,000 in One Bay Areas Grant Cycle 3 funding for a total budget of $4,705,000; and

WHEREAS, planned expenditures for the PA&ED phase of the project are not anticipated to exceed $4,683,632.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of American Canyon hereby authorizes the City Manager to execute Cooperative Agreement 04-2957 with Caltrans and Napa Valley

Transportation Authority for Project Approval and Environmental Document phase services associated with the American Canyon State Route 29 Corridor Improvement Project.

PASSED, APPROVED and **ADOPTED** at a regularly scheduled meeting of the City Council of the City of American Canyon held on the 16th day of January, by the following vote:

AYES:	Council Members Aboudamous, Joseph, Washington, Vice Mayor Oro, and Mayor Garcia
NOES:	None
ABSTAIN:	None
ABSENT:	None

Leon Garcia

Leon Garcia, Mayor

ATTEST:

Taresa Geilfuss, CMC, City Clerk

APPROVE AS TO FORM:

William D. Ross, City Attorney

COOPERATIVE AGREEMENT COVER SHEET

Work Description

SR 29 AMERICAN CANYON MULTI-MODAL CORRIDOR IMPROVEMENT PROJECT WOULD MAKE ROADWAY IMPROVEMENTS ALONG STATE ROUTE 29 (SR 29) BETWEEN POST MILES 0.69 AND 2.05. PROPOSED IMPROVEMENTS INCLUDE TRANSIT, BICYCLE AND PEDESTRIAN INFRASTRUCTURE. THREE ALTERNATIVES WERE DEVELOPED DURING THE PROJECT STUDY REPORT-PROJECT DEVELOPMENT SUPPORT PHASE, 2 BUILD AND 1 NO BUILD. BUILD ALTERNATIVE 1 EVALUATES IMPROVEMENT OF EXISTING SIGNALIZED INTERSECTIONS INCLUDING SIGNAL OPERATIONAL IMPROVEMENTS, ADAPTIVE TECHNOLOGY, AND QUEUE JUMPS WITH AUXILIARY LANES. BUILD ALTERNATIVE 2 EVALUATES INTERSECTION OPERATIONAL IMPROVEMENTS BY REPLACING EXISTING SIGNALIZED INTERSECTIONS WITH ROUNDABOUTS. STREET BEAUTIFICATION, BIKE AND PEDESTRIAN INFRASTRUCTURE, AND SIGNAGE AND WAYFINDING IMPROVEMENTS ARE PROPOSED UNDER BOTH BUILD ALTERNATIVES

Contact Information

CALTRANS

Amani Meligy, Regional Project Manager for Napa County

111 Grand Avenue

Oakland, CA 94612

Office Phone: (510) 286-5103

Email: amani.meligy@dot.ca.gov

NAPA VALLEY TRANSPORTATION AUTHORITY

Danielle Schmitz, Capital Development & Planning

625 Burnell Street

Napa, CA 94559

Office Phone: (707) 259-5968

Email: dschmitz@nvta.ca.gov

CITY OF AMERICAN CANYON

Erica Ahmann Smithies, Public Works Director

Napa, CA 94559

Office Phone: (707) 647-4360

Email: esmithies@cityofamericancanyon.org

COOPERATIVE AGREEMENT

This AGREEMENT, executed on and effective from February 29, 2024, is between the State of California, acting through its Department of Transportation, referred to as CALTRANS, and:

Napa Valley Transportation Authority, a California joint powers authority, referred to hereinafter as NVTA; and

City of American Canyon, a public corporation/entity, referred to hereinafter as CITY.

An individual signatory agency in this AGREEMENT is referred to as a PARTY. Collectively, the signatory agencies in this AGREEMENT are referred to as PARTIES.

RECITALS

1. PARTIES are authorized to enter into a cooperative agreement for improvements to the State Highway System per the California Streets and Highways Code, Sections 114 and 130.

2. For the purpose of this AGREEMENT, *SR 29 American Canyon Multi-modal Corridor Improvement Project would make roadway improvements along State Route 29 (SR 29) between Post miles 0.69 and 2.05. Proposed improvements include transit, bicycle and pedestrian infrastructure. Three alternatives were developed during the Project Study Report-Project Development Support phase, 2 build and 1 no build. Build alternative 1 evaluates improvement of existing signalized intersections including signal operational improvements, adaptive technology, and queue jumps with auxiliary lanes. Build alternative 2 evaluates intersection operational improvements by replacing existing signalized intersections with roundabouts. Street beautification, bike and pedestrian infrastructure, and signage and wayfinding improvements are proposed under both build alternatives* will be referred to hereinafter as PROJECT. The PROJECT scope of work is defined in the project initiation and approval documents (e.g. Project Study Report, Design Engineering Evaluation Report, or Project Report).

3. All obligations and responsibilities assigned in this AGREEMENT to complete the following PROJECT COMPONENT will be referred to hereinafter as WORK:

   - PROJECT APPROVAL AND ENVIRONMENTAL DOCUMENT (PA&ED)

   Each PROJECT COMPONENT is defined in the CALTRANS Workplan Standards Guide as a distinct group of activities/products in the project planning and development process.

4. The term AGREEMENT, as used herein, includes this document and any attachments, exhibits, and amendments.

   This AGREEMENT is separate from and does not modify or replace any other cooperative agreement or memorandum of understanding between the PARTIES regarding the PROJECT.

   PARTIES intend this AGREEMENT to be their final expression that supersedes any oral understanding or writings pertaining to the WORK. The requirements of this AGREEMENT will preside over any conflicting requirements in any documents that are made an express part of this AGREEMENT.

   If any provisions in this AGREEMENT are found by a court of competent jurisdiction to be, or are in fact, illegal, inoperative, or unenforceable, those provisions do not render any or all other AGREEMENT provisions invalid, inoperative, or unenforceable, and those provisions will be automatically severed from this AGREEMENT.

   Except as otherwise provided in the AGREEMENT, PARTIES will execute a written amendment if there are any changes to the terms of this AGREEMENT.

   PARTIES agree to sign a CLOSURE STATEMENT to terminate this AGREEMENT. However, all indemnification, document retention, audit, claims, environmental commitment, legal challenge, maintenance and ownership articles will remain in effect until terminated or modified in writing by mutual agreement or expire by the statute of limitations.

5. No PROJECT deliverables have been completed prior to this AGREEMENT.

6. In this AGREEMENT capitalized words represent defined terms, initialisms, or acronyms.

7. PARTIES hereby set forth the terms, covenants, and conditions of this AGREEMENT.

RESPONSIBILITIES

Sponsorship

8. A SPONSOR is responsible for establishing the scope of the PROJECT and securing the financial resources to fund the WORK. A SPONSOR is responsible for securing additional funds when necessary or implementing PROJECT changes to ensure the WORK can be completed with the funds committed in this AGREEMENT.

   PROJECT changes, as described in the CALTRANS Project Development Procedures Manual, will be approved by CALTRANS as the owner/operator of the State Highway System.

9. NVTA is the SPONSOR for the WORK in this AGREEMENT.

Implementing Agency

10. The IMPLEMENTING AGENCY is the PARTY responsible for managing the scope, cost, schedule, and quality of the work activities and products of a PROJECT COMPONENT.

    - NVTA is the Project Approval and Environmental Document (PA&ED) IMPLEMENTING AGENCY.

      PA&ED includes the completion of the Final Environmental Document and the Project Report (documenting the project alternative selection).

11. NVTA will provide a Quality Management Plan (QMP) for the WORK in every PROJECT COMPONENT that they are implementing. The QMP describes the IMPLEMENTING AGENCY's quality policy and how it will be used. The QMP will include a process for resolving disputes between the PARTIES at the team level. The QMP is subject to CALTRANS review and concurrence.

12. Any PARTY responsible for completing WORK will make its personnel and consultants that prepare WORK available to help resolve WORK-related problems and changes for the entire duration of the PROJECT including PROJECT work that may occur under separate agreements.

Funding

13. Funding sources, PARTIES committing funds, funding amounts, and invoicing/payment details are documented in the Funding Summary section of this AGREEMENT.

    PARTIES will amend this AGREEMENT by updating and replacing the Funding Summary, in its entirety, each time the funding details change. Funding Summary replacements will be executed by a legally authorized representative of the respective PARTIES. The most current fully executed Funding Summary supersedes any previous Funding Summary created for this AGREEMENT.

14. PARTIES will not be reimbursed for costs beyond the funding commitments in this AGREEMENT.

15. Unless otherwise documented in the Funding Summary, overall liability for project costs within a PROJECT COMPONENT, subject to program limitations, will be in proportion to the amount contributed to that PROJECT COMPONENT by each fund type.

16. Unless otherwise documented in the Funding Summary, any savings recognized within a PROJECT COMPONENT will be credited or reimbursed, when allowed by policy or law, in proportion to the amount contributed to that PROJECT COMPONENT by each fund type.

17. WORK costs, except those that are specifically excluded in this AGREEMENT, are to be paid from the funds obligated in the Funding Summary. Costs that are specifically excluded from the funds obligated in this AGREEMENT are to be paid by the PARTY incurring the costs from funds that are independent of this AGREEMENT.

CALTRANS' Quality Management

18. CALTRANS, as the owner/operator of the State Highway System (SHS), will perform quality management work including Quality Management Assessment (QMA) and owner/operator approvals for the portions of WORK within the existing and proposed SHS right-of-way.

19. CALTRANS' Quality Management Assessment (QMA) efforts are to ensure that NVTA's quality assurance results in WORK that is in accordance with the applicable standards and the PROJECT's quality management plan (QMP). QMA does not include any efforts necessary to develop or deliver WORK or any validation by verifying or rechecking WORK.

    When CALTRANS performs QMA, it does so for its own benefit. No one can assign liability to CALTRANS due to its QMA.

20. CALTRANS, as the owner/operator of the State Highway System, will approve WORK products in accordance with CALTRANS policies and guidance and as indicated in this AGREEMENT.

21. Per National Environmental Policy Act (NEPA) assignment and California Environmental Quality Act (CEQA) statutes, CALTRANS will perform environmental document quality control and NEPA assignment review procedures for environmental documentation. CALTRANS quality control and quality assurance procedures for all environmental documents are described in Chapter 38 of the Standard Environmental Reference (SER), available at https://dot.ca.gov/programs/environmental-analysis/standard-environmental-reference-ser/volume-1-guidance-for-compliance/ch-38-nepa-assignment. This also includes the independent judgment analysis and determination under CEQA that the environmental documentation meets CEQA requirements.

22. NVTA will provide WORK-related products and supporting documentation upon CALTRANS' request for the purpose of CALTRANS' quality management work.

23. NVTA and CITY, including any employee, agent, consultant or sub-consultant retained by the NVTA and CITY, shall implement uniform document control policies necessary to retain all records and electronically stored information associated with the WORK, including but not limited to those records identified in California Public Resources Code, Section 21167.6, and including email and attachments, in a manner consistent with the CALTRANS Uniform Filing System and the "Final Caltrans Environmental Records Retention Policy", available at https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/ser/nepa-recordretention-policy-final-a11y.pdf. These records, along with an index of the records, shall be provided to CALTRANS within 60 days of CALTRANS' written request.

CEQA/NEPA Lead Agency

24. NVTA is the CEQA Lead Agency for the PROJECT.

25. CALTRANS is a CEQA Responsible Agency for the PROJECT.

26. CALTRANS is the NEPA Lead Agency for the PROJECT.

Environmental Permits, Approvals and Agreements

27. PARTIES will comply with the commitments and conditions set forth in the environmental documentation, environmental permits, approvals, and applicable agreements as those commitments and conditions apply to each PARTY's responsibilities in this AGREEMENT.

28. Unless otherwise assigned in this AGREEMENT, the IMPLEMENTING AGENCY for a PROJECT COMPONENT is responsible for all PROJECT COMPONENT WORK associated with coordinating, obtaining, implementing, renewing, and amending the PROJECT permits, agreements, and approvals whether they are identified in the planned project scope of work or become necessary in the course of completing the PROJECT.

29. It is expected that the PROJECT requires the following environmental permits/approvals:

ENVIRONMENTAL PERMITS/REQUIREMENTS
404, US Army Corps Of Engineers
401, Regional Water Quality Control Board
National Pollutant Discharge Elimination System (NPDES), State Water Resources Control Board

Project Approval and Environmental Document (PA&ED)

30. As the PA&ED IMPLEMENTING AGENCY, NVTA is responsible for all PA&ED WORK except those activities and responsibilities that are assigned to another PARTY and those activities that are excluded under this AGREEMENT.

31. CALTRANS will be responsible for completing the following PA&ED activities:

CALTRANS Work Breakdown Structure Identifier (If Applicable)	AGREEMENT Funded Cost
100.10.10.xx Quality Management	No
165.15.15.xx Essential Fish Habitat Consultation	Yes
165.15.15.xx Section 7 Consultation	Yes
165.25.25 Approval to Circulate Resolution	Yes
180.10.05.45 Section 7 Consultation	Yes
180.15.05 Record of Decision (NEPA)	Yes

32. Any PARTY preparing environmental documentation, including studies and reports, will ensure that qualified personnel remain available to help resolve environmental issues and perform any necessary work to ensure that the PROJECT remains in environmental compliance.

33. NVTA will provide written notice of the initiation of environmental studies to the NEPA Lead Agency prior to completing any other PA&ED phase work.

California Environmental Quality Act (CEQA)

34. The CEQA Lead Agency will determine the type of CEQA documentation and will cause that documentation to be prepared in accordance with CEQA requirements.

35. Any PARTY involved in the preparation of CEQA documentation will prepare the documentation to meet CEQA requirements and follow the CEQA Lead Agency's standards that apply to the CEQA process.

36. CALTRANS is a CEQA Responsible Agency for the PROJECT and is responsible for review, comment, and concurrence on all environmental documentation (including, but not limited to, studies, reports, public notices, and public meeting materials, determinations, administrative drafts, and final environmental documents) at appropriate stages of development prior to approval and public availability.

37. Any PARTY preparing any portion of the CEQA documentation, including any studies and reports, will submit that portion of the documentation to the CEQA Lead Agency for review, comment, and approval at appropriate stages of development prior to public availability.

38. If the CEQA Lead Agency makes any changes to the CEQA documentation, the CEQA Lead Agency will allow CALTRANS to review, comment, and concur on those changes prior to the CEQA Lead Agency's approval at appropriate stages of development prior to public availability.

39. If the CEQA Lead Agency makes any changes to CEQA-related public notices, then the CEQA Lead Agency will allow CALTRANS to review, comment, and concur on those changes prior to publication and circulation.

40. The CEQA Lead Agency will attend all CEQA-related public meetings.

41. If a PARTY who is not the CEQA Lead Agency holds a public meeting about the PROJECT, that PARTY must clearly state its role in the PROJECT and the identity of the CEQA Lead Agency on all meeting publications. All meeting publications must also inform the attendees that public comments collected at the meetings are not part of the CEQA public review process.

    That PARTY will submit all meeting advertisements, agendas, exhibits, handouts, and materials to the CEQA Lead Agency for review, comment, and approval at least ten (10) working days prior to publication or use. If that PARTY makes any changes to the materials, it will allow the CEQA Lead Agency to review, comment on, and approve those changes at least three (3) working days prior to the public meeting date.

    The CEQA Lead Agency maintains final editorial control with respect to text or graphics that could lead to public confusion over CEQA-related roles and responsibilities.

National Environmental Policy Act (NEPA)

42. Pursuant to Chapter 3 of Title 23, United States Code, Sections 326 and 327, CALTRANS is the NEPA Lead Agency for the PROJECT. CALTRANS is responsible for NEPA compliance, will determine the type of NEPA documentation, and will cause that documentation to be prepared in accordance with NEPA requirements.

    CALTRANS, as the NEPA Lead Agency for PROJECT, is responsible for the review, comment, and approval of all environmental documentation (including, but not limited to, studies, reports, public notices, and public meeting materials, determinations, administrative drafts, and final environmental documents) at appropriate stages of development prior to approval and public availability.

    When required as NEPA Lead Agency, CALTRANS will conduct consultation and coordination and obtain, renew, or amend approvals pursuant to the Federal Endangered Species Act, and Essential Fish Habitat.

    When required as NEPA Lead Agency, CALTRANS will conduct consultation and coordination approvals pursuant to Section 106 of the National Historic Preservation Act.

43. Any PARTY involved in the preparation of NEPA documentation will follow FHWA and CALTRANS standards that apply to the NEPA process including, but not limited to, the guidance provided in the FHWA Environmental Toolkit (available at http://environment.fhwa.dot.gov/index.asp) and the CALTRANS Standard Environmental Reference.

44. Any PARTY preparing any portion of the NEPA documentation (including, but not limited to, studies, reports, public notices, and public meeting materials, determinations, administrative drafts, and final environmental documents) will submit that portion of the documentation to CALTRANS for CALTRANS' review, comment, and approval prior to public availability.

45. NVTA and CITY will prepare, publicize, and circulate all NEPA-related public notices, except Federal Register notices. NVTA will submit all notices to CALTRANS for CALTRANS' review, comment, and approval prior to publication and circulation.

    CALTRANS will work with the appropriate federal agency to publish notices in the Federal Register.

46. The NEPA Lead Agency will attend all NEPA-related public meetings.

47. NVTA and CITY will submit all NEPA-related public meeting materials to CALTRANS for CALTRANS' review, comment, and approval at least ten (10) working days prior to the public meeting date.

48. If a PARTY who is not the NEPA Lead Agency holds a public meeting about the PROJECT, that PARTY must clearly state its role in the PROJECT and the identity of the NEPA Lead Agency on all meeting publications. All meeting publications must also inform the attendees that public comments collected at the meetings are not part of the NEPA public review process.

    That PARTY will submit all meeting advertisements, agendas, exhibits, handouts, and materials to the NEPA Lead Agency for review, comment, and approval at least ten (10) working days prior to publication or use. If that PARTY makes any changes to the materials, it will allow the NEPA Lead Agency to review, comment on, and approve those changes at least three (3) working days prior to the public meeting date.

    The NEPA Lead Agency has final approval authority with respect to text or graphics that could lead to public confusion over NEPA-related roles and responsibilities.

49. NVTA and CITY will ensure that the PROJECT is included in the approved Federal Statewide Transportation Improvement Program (FSTIP) prior to the NEPA Lead Agency's approval of the environmental document.

Schedule

50. PARTIES will manage the WORK schedule to ensure the timely use of committed funds and to ensure compliance with any environmental permits, right-of-way agreements, construction contracts, and any other commitments. PARTIES will communicate schedule risks or changes as soon as they are identified and will actively manage and mitigate schedule risks.

51. The IMPLEMENTING AGENCY for each PROJECT COMPONENT will furnish PARTIES with written monthly progress reports during the completion of the WORK.

Additional Provisions

Standards

52. PARTIES will perform all WORK in accordance with federal and California laws, regulations, and standards; Federal Highway Administration (FHWA) standards; and CALTRANS standards. CALTRANS standards include, but are not limited to, the guidance provided in the:

- CADD Users Manual
- CALTRANS policies and directives
- Plans Preparation Manual
- Project Development Procedures Manual (PDPM)
- Workplan Standards Guide
- Standard Environmental Reference
- Highway Design Manual
- Encroachment Permits Manual

Noncompliant Work

53. CALTRANS retains the right to reject noncompliant WORK. NVTA agrees to suspend WORK upon request by CALTRANS for the purpose of protecting public safety, preserving property rights, and ensuring that all WORK is in the best interest of the State Highway System.

Qualifications

54. Each PARTY will ensure that personnel participating in WORK are appropriately qualified or licensed to perform the tasks assigned to them.

Consultant Selection

55. NVTA and CITY will invite CALTRANS to participate in the selection of any consultants that participate in the WORK.

Encroachment Permits

56. CALTRANS will issue, upon proper application, the encroachment permits required for WORK within State Highway System (SHS) right-of-way. NVTA, CITY, their contractors, consultants, agents, and utility owners will not work within the SHS right-of-way without an encroachment permit which specifically allows them to do so. CALTRANS will provide encroachment permits to NVTA and CITY at no cost. CALTRANS will provide encroachment permits to utility owners at no cost. If the encroachment permit and this AGREEMENT conflict, the requirements of this AGREEMENT will prevail.

57. The IMPLEMENTING AGENCY for a PROJECT COMPONENT will coordinate, prepare, obtain, implement, renew, and amend any encroachment permits needed to complete the WORK.

Protected Resources

58. If any PARTY discovers unanticipated cultural, archaeological, paleontological, or other protected resources during WORK, all WORK in that area will stop and that PARTY will notify all PARTIES within 24 hours of discovery. WORK may only resume after a qualified professional has evaluated the nature and significance of the discovery and CALTRANS approves a plan for its removal or protection.

Disclosures

59. PARTIES will hold all administrative drafts and administrative final reports, studies, materials, and documentation relied upon, produced, created, or utilized for the WORK in confidence to the extent permitted by law and where applicable, the provisions of California Government Code, Section 7921.505(c)(5) will protect the confidentiality of such documents in the event that said documents are shared between PARTIES.

    PARTIES will not distribute, release, or share said documents with anyone other than employees, agents, and consultants who require access to complete the WORK without the written consent of the PARTY authorized to release them, unless required or authorized to do so by law.

60. If a PARTY receives a public records request pertaining to the WORK, that PARTY will notify PARTIES within five (5) working days of receipt and make PARTIES aware of any disclosed public records.

Hazardous Materials

61. HM-1 is hazardous material (including, but not limited to, hazardous waste) that may require removal and disposal pursuant to federal or state law, irrespective of whether it is disturbed by the PROJECT or not.

    HM-2 is hazardous material (including, but not limited to, hazardous waste) that may require removal and disposal pursuant to federal or state law only if disturbed by the PROJECT.

    The management activities related to HM-1 and HM-2, including and without limitation, any necessary manifest requirements and disposal facility designations are referred to herein as HM-1 MANAGEMENT and HM-2 MANAGEMENT respectively.

62. If HM-1 or HM-2 is found the discovering PARTY will immediately notify all other PARTIES.

63. CALTRANS, independent of the PROJECT, is responsible for any HM-1 found within the existing State Highway System right-of-way. CALTRANS will undertake, or cause to be undertaken, HM-1 MANAGEMENT with minimum impact to the PROJECT schedule.

    CALTRANS will pay, or cause to be paid, the cost of HM-1 MANAGEMENT for HM-1 found within the existing State Highway System right-of-way with funds that are independent of the funds committed in this AGREEMENT.

64. If HM-1 is found within the PROJECT limits and outside the existing State Highway System right-of-way, responsibility for such HM-1 rests with the owner(s) of the parcel(s) on which the HM-1 is found. NVTA, in concert with the local agency having land use jurisdiction, will ensure that HM-1 MANAGEMENT is undertaken with minimum impact to PROJECT schedule.

    The cost of HM-1 MANAGEMENT for HM-1 found within the PROJECT limits and outside the existing State Highway System right-of-way will be paid from funds that are independent of the funds committed in this AGREEMENT and will be the responsibility of the owner(s) of the parcel(s) where the HM-1 is located.

65. The CONSTRUCTION IMPLEMENTING AGENCY is responsible for HM-2 MANAGEMENT within the PROJECT limits.

NVTA, CITY and CALTRANS will comply with the Soil Management Agreement for Aerially Deposited Lead Contaminated Soils (Soil Management Agreement) executed between CALTRANS and the California Department of Toxic Substances Control (DTSC). Under Section 3.2 of the Soil Management Agreement, CALTRANS and NVTA each retain joint and severable liability for noncompliance with the provisions of the Soil Management Agreement. NVTA will assume all responsibilities assigned to CALTRANS in the Soil Management Agreement during PROJECT COMPONENTS for which they are the IMPLEMENTING AGENCY except for final placement and burial of soil within the State right-of-way, per Section 4.5 of the Soil Management Agreement, which is subject to CALTRANS concurrence and reporting to DTSC which will be performed by CALTRANS.

66. CALTRANS' acquisition or acceptance of title to any property on which any HM-1 or HM-2 is found will proceed in accordance with CALTRANS' policy on such acquisition.

Claims

67. Any PARTY that is responsible for completing WORK may accept, reject, compromise, settle, or litigate claims arising from the WORK without concurrence from the other PARTY.

68. PARTIES will confer on any claim that may affect the WORK or PARTIES' liability or responsibility under this AGREEMENT in order to retain resolution possibilities for potential future claims. No PARTY will prejudice the rights of another PARTY until after PARTIES confer on the claim.

69. If the WORK expends state or federal funds, each PARTY will comply with the Federal Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards of 2 CFR, Part 200. PARTIES will ensure that any for-profit consultant hired to participate in the WORK will comply with the requirements in 48 CFR, Chapter 1, Part 31. When state or federal funds are expended on the WORK these principles and requirements apply to all funding types included in this AGREEMENT.

Accounting and Audits

70. PARTIES will maintain, and will ensure that any consultant hired by PARTIES to participate in WORK will maintain, a financial management system that conforms to Generally Accepted Accounting Principles (GAAP), and that can properly accumulate and segregate incurred PROJECT costs and billings.

71. PARTIES will maintain and make available to each other all WORK-related documents, including financial data, during the term of this AGREEMENT.

    PARTIES will retain all WORK-related records for three (3) years after the final voucher.

    PARTIES will require that any consultants hired to participate in the WORK will comply with this Article.

72. PARTIES have the right to audit each other in accordance with generally accepted governmental audit standards.

    CALTRANS, the State Auditor, FHWA (if the PROJECT utilizes federal funds), and NVTA will have access to all WORK -related records of each PARTY, and any consultant hired by a PARTY to participate in WORK, for audit, examination, excerpt, or transcription.

    The examination of any records will take place in the offices and locations where said records are generated and/or stored and will be accomplished during reasonable hours of operation. The auditing PARTY will be permitted to make copies of any WORK-related records needed for the audit.

    The audited PARTY will review the draft audit, findings, and recommendations, and provide written comments within thirty (30) calendar days of receipt.

    Upon completion of the final audit, PARTIES have forty-five (45) calendar days to refund or invoice as necessary in order to satisfy the obligation of the audit.

    Any audit dispute not resolved by PARTIES is subject to mediation. Mediation will follow the process described in the General Conditions section of this AGREEMENT.

73. If the WORK expends state or federal funds, each PARTY will undergo an annual audit in accordance with the Single Audit Act in the Federal Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards as defined in 2 CFR, Part 200.

74. When a PARTY reimburses a consultant for WORK with state or federal funds, the procurement of the consultant and the consultant overhead costs will be in accordance with the Local Assistance Procedures Manual, Chapter 10.

Interruption of Work

75. If WORK stops for any reason, IMPLEMENTING AGENCY will place the PROJECT right-of-way in a safe and operable condition acceptable to CALTRANS.

76. If WORK stops for any reason, each PARTY will continue with environmental commitments included in the environmental documentation, permits, agreements, or approvals that are in effect at the time that WORK stops, and will keep the PROJECT in environmental compliance until WORK resumes.

Penalties, Judgments and Settlements

77. The cost of awards, judgments, fines, interest, penalties, attorney's fees, and/or settlements generated by the WORK are considered WORK costs.

78. The cost of legal challenges to the environmental process or documentation are considered WORK costs.

79. Any PARTY whose action or lack of action causes the levy of fines, interest, or penalties will indemnify and hold all other PARTIES harmless per the terms of this AGREEMENT.

Project Files

80. NVTA and CITY will furnish CALTRANS with the Project History Files related to the PROJECT facilities on State Highway System within sixty (60) days following the completion of each PROJECT COMPONENT. NVTA will assure that the Project History File is prepared and submitted in compliance with the Project Development Procedures Manual, Chapter 7. All material will be submitted neatly in a three-ring binder and in PDF format.

GENERAL CONDITIONS

81. All portions of this AGREEMENT, including the Recitals Section, are enforceable.

Venue

82. PARTIES understand that this AGREEMENT is in accordance with and governed by the Constitution and laws of the State of California. This AGREEMENT will be enforceable in the State of California. Any PARTY initiating legal action arising from this AGREEMENT will file and maintain that legal action in the Superior Court of the county in which the CALTRANS district office that is signatory to this AGREEMENT resides, or in the Superior Court of the county in which the PROJECT is physically located.

Exemptions

83. All CALTRANS' obligations and commitments under this AGREEMENT are subject to the appropriation of resources by the Legislature, the State Budget Act authority, programming and allocation of funds by the California Transportation Commission (CTC).

Indemnification

84. Neither CALTRANS, CITY nor any of its officers and employees, are responsible for any injury, damage, or liability occurring by reason of anything done or omitted to be done by NVTA, its contractors, sub-contractors, and/or its agents under or in connection with any work, authority, or jurisdiction conferred upon NVTA under this AGREEMENT. It is understood and agreed that NVTA, to the extent permitted by law, will defend, indemnify, and save harmless CALTRANS, CITY and all of their officers and employees from all claims, suits, or actions of every name, kind, and description brought forth under, but not limited to, tortious, contractual, inverse condemnation, or other theories and assertions of liability occurring by reason of anything done or omitted to be done by NVTA, its contractors, sub-contractors, and/or its agents under this AGREEMENT.

85. Neither NVTA, CITY nor any of its officers and employees, are responsible for any injury, damage, or liability occurring by reason of anything done or omitted to be done by CALTRANS, its contractors, sub-contractors, and/or its agents under or in connection with any work, authority, or jurisdiction conferred upon CALTRANS under this AGREEMENT. It is understood and agreed that CALTRANS, to the extent permitted by law, will defend, indemnify, and save harmless NVTA, CITY and all of their officers and employees from all claims, suits, or actions of every name, kind, and description brought forth under, but not limited to, tortious, contractual, inverse condemnation, or other theories and assertions of liability occurring by reason of anything done or omitted to be done by CALTRANS, its contractors, sub-contractors, and/or its agents under this AGREEMENT.

86. Neither CALTRANS, NVTA nor any of its officers and employees, are responsible for any injury, damage, or liability occurring by reason of anything done or omitted to be done by CITY, it's contractors, sub-contractors, and/or its agents under or in connection with any work, authority, or jurisdiction conferred upon CALTRANS under this AGREEMENT. It is understood and agreed that CITY, to the extent permitted by law, will defend, indemnify, and save harmless CALTRANS, NVTA and all of their officers and employees from all claims, suits, or actions of every name, kind, and description brought forth under, but not limited to, tortious, contractual, inverse condemnation, or other theories and assertations of liability occurring by reason of anything done or omitted to be done by CITY, its contractors, sub-contractors, and/or its agents under this AGREEMENT.

Non-parties

87. PARTIES do not intend this AGREEMENT to create a third party beneficiary or define duties, obligations, or rights for entities not signatory to this AGREEMENT. PARTIES do not intend this AGREEMENT to affect their legal liability by imposing any standard of care for fulfilling the WORK different from the standards imposed by law.

88. PARTIES will not assign or attempt to assign obligations to entities not signatory to this AGREEMENT without an amendment to this AGREEMENT.

Ambiguity and Performance

89. Neither PARTY will interpret any ambiguity contained in this AGREEMENT against the other PARTY. PARTIES waive the provisions of California Civil Code, Section 1654.

    A waiver of a PARTY's performance under this AGREEMENT will not constitute a continuous waiver of any other provision.

90. A delay or omission to exercise a right or power due to a default does not negate the use of that right or power in the future when deemed necessary.

Defaults

91. If any PARTY defaults in its performance of the WORK, a non-defaulting PARTY will request in writing that the default be remedied within thirty (30) calendar days. If the defaulting PARTY fails to do so, the non-defaulting PARTY may initiate dispute resolution.

Dispute Resolution

92. PARTIES will first attempt to resolve AGREEMENT disputes at the PROJECT team level as described in the Quality Management Plan. If they cannot resolve the dispute themselves, the CALTRANS District Director and the Executive Officer of NVTA will attempt to negotiate a resolution. If PARTIES do not reach a resolution, PARTIES' legal counsel will initiate mediation. PARTIES agree to participate in mediation in good faith and will share equally in its costs.

    Neither the dispute nor the mediation process relieves PARTIES from full and timely performance of the WORK in accordance with the terms of this AGREEMENT. However, if any PARTY stops fulfilling its obligations, any other PARTY may seek equitable relief to ensure that the WORK continues.

    Except for equitable relief, no PARTY may file a civil complaint until after mediation, or forty-five (45) calendar days after filing the written mediation request, whichever occurs first.

    PARTIES will file any civil complaints in the Superior Court of the county in which the CALTRANS District Office signatory to this AGREEMENT resides or in the Superior Court of the county in which the PROJECT is physically located.

93. PARTIES maintain the ability to pursue alternative or additional dispute remedies if a previously selected remedy does not achieve resolution.

Prevailing Wage

94. When WORK falls within the Labor Code § 1720(a)(1) definition of "public works" in that it is construction, alteration, demolition, installation, or repair; or maintenance work under Labor Code § 1771, PARTIES will conform to the provisions of Labor Code §§ 1720-1815, and all applicable provisions of California Code of Regulations, Title 8, Division 1, Chapter 8, Subchapter 3, Articles 1-7. PARTIES will include prevailing wage requirements in contracts for public work and require contractors to include the same prevailing wage requirements in all subcontracts.

    Work performed by a PARTY's own employees is exempt from the Labor Code's Prevailing Wage requirements.

    If WORK is paid for, in whole or part, with federal funds and is of the type of work subject to federal prevailing wage requirements, PARTIES will conform to the provisions of the Davis-Bacon and Related Acts, 40 U.S.C. §§ 3141-3148.

    When applicable, PARTIES will include federal prevailing wage requirements in contracts for public works. WORK performed by a PARTY's employees is exempt from federal prevailing wage requirements.

SIGNATURES

PARTIES are authorized to enter into this AGREEMENT and have delegated to the undersigned the authority to execute this AGREEMENT on behalf of the respective agencies and hereby covenants to have followed all the necessary legal requirements to validly execute this AGREEMENT. By signing below, the PARTIES each expressly agree to execute this AGREEMENT electronically.

The PARTIES acknowledge that executed copies of this AGREEMENT may be exchanged by facsimile or email, and that such copies shall be deemed to be effective as originals.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

Robert Effinger
Acting Deputy District Director, Design

Verification of funds and authority:

Jeffrey Kuehnel
District Budget Manager

Certified as to financial terms and policies:

Nadine Karavan
Nadine Karavan
HQ Accounting Supervisor

NAPA VALLEY TRANSPORTATION AUTHORITY

Kate Miller (Feb 26, 2024 18:29 PST)
Kate Miller
Executive Director

Attest:

Laura Sanderlin
Laura Sanderlin
Board Secretary

Approved as to form and procedure:

Osman Mufti (Feb 26, 2024 15:58 PST)
Osman Mufti
NVTA General Counsel

CITY OF AMERICAN CANYON

Jason Holley (Feb 27, 2024 10:13 PST)

Jason Holley
City Manager

Attest:

Taresa Geilfuss
City Clerk

Approved as to form and procedure:

William D. Ross
City Attorney

FUNDING SUMMARY NO. 01

FUNDING TABLE

Source	Party	Fund Type	PA&ED Totals
LOCAL	CALTRANS	Settlement[M]	955,000
LOCAL-FEDERAL	NVTA	RSTP	3,000,000
LOCAL	NVTA	Local	500,000
Totals			4,455,000

[M]Non-federal match

SPENDING SUMMARY			
Fund Type	PA&ED		Totals
	CALTRANS	NVTA	
Settlement	0	955,000	955,000
RSTP	0	3,000,000	3,000,000
Local	500,000	0	0
Totals	500,000	3,955,000	4,455,000

Funding

1. If there are insufficient funds available in this AGREEMENT to place the PROJECT right-of-way in a safe and operable condition, the appropriate IMPLEMENTING AGENCY will fund these activities until such time as PARTIES amend this AGREEMENT.

   That IMPLEMENTING AGENCY may request reimbursement for these costs during the amendment process.

2. If there are insufficient funds in this AGREEMENT to implement the obligations and responsibilities of this AGREEMENT, including the applicable commitments and conditions included in the PROJECT environmental documentation, permits, agreements, and/or approvals that are in effect at a time that WORK stops, each PARTY accepts responsibility to fund their respective WORK until such time as PARTIES amend this AGREEMENT.

   Each PARTY may request reimbursement for these costs during the amendment process.

3. The cost of any engineering support performed by CALTRANS includes all direct and applicable indirect costs. CALTRANS calculates indirect costs based solely on the type of funds used to pay support costs. State and federal funds administered by CALTRANS are subject to the current Program Functional Rate. All other funds are subject to the current Program Functional Rate and the current Administration Rate. The Program Functional Rate and Administration Rate are adjusted periodically.

4. If the WORK is funded with state or federal funds, any PARTY seeking CALTRANS reimbursement of indirect costs must submit an indirect cost rate proposal and central service cost allocation plan (if any) in accordance with Local Assistance Procedures Manual, 2 CFR, Part 200 and Chapter 5. These documents are to be submitted annually to CALTRANS' Audits and Investigations for review and acceptance prior to CALTRANS' reimbursement of indirect costs.

5. Travel, per diem, and third-party contract reimbursements for WORK are to be paid from the funds in this AGREEMENT only after the contractor performs the work and incurs said costs.

Payments for travel and per diem will not exceed the rates paid rank and file state employees under current California Department of Human Resources (CalHR) rules current at the effective date of this AGREEMENT.

If NVTA invoices for rates in excess of CalHR rates, NVTA will fund the cost difference and reimburse CALTRANS for any overpayment.

6. In accordance with the CALTRANS Federal-Aid Project Funding Guidelines, PARTIES must obtain approval from the Federal Highway Administration prior to any PROJECT funding changes that that will change the federal share of funds.

7. Notwithstanding the terms of this AGREEMENT, PARTIES agree to abide by the funding guidelines for all contributed funds that are programmed and allocated by the CTC.

Invoicing and Payment

8. PARTIES will invoice for funds where the SPENDING SUMMARY shows that one PARTY provides funds for use by another PARTY. PARTIES will pay invoices within forty-five (45) calendar days of receipt of invoice when not paying with Electronic Funds Transfer (EFT). When paying with EFT, NVTA will pay invoices within five (5) calendar days of receipt of invoice.

9. If NVTA has received EFT certification from CALTRANS then NVTA will use the EFT mechanism and follow all EFT procedures to pay all invoices issued from CALTRANS.

10. When a PARTY is reimbursed for actual cost, invoices will be submitted each month for the prior month's expenditures. After all PROJECT COMPONENT WORK is complete, PARTIES will submit a final accounting of all PROJECT COMPONENT costs. Based on the final accounting, PARTIES will invoice or refund as necessary to satisfy the financial commitments of this AGREEMENT.

11. If an executed Program Supplement Agreement (PSA) or STIP Planning, Programming, and Monitoring Program Fund Transfer Agreement (PPM) exists for this PROJECT then NVTA will abide by the billing and payment conditions detailed for the fund types identified in the PSA or PPM.

12. If CALTRANS reimburses NVTA for any costs later determined to be unallowable, NVTA will reimburse those funds.

Project Approval and Environmental Document (PA&ED)

13. CALTRANS will invoice NVTA for a $45,000 initial deposit after execution of this AGREEMENT and forty-five (45) working days prior to the commencement of PA&ED expenditures. This deposit represents two (2) month's estimated costs for Local funds.

    Thereafter, PARTIES will invoice and reimburse for actual costs incurred and paid.

Cooperative Agreement 04-2957 Execution Process

Final Audit Report 2024-02-29

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04 - NAP - 29 – PM 0.69/PM 2.05
EA 04-4Q010K – 0419000297
November 2022

Project Study Report-Project Development Support (PSR-PDS)

To

Request Approval for a Locally Funded Project to Proceed to Project Approval and Environmental Document (PA&ED Phase)

On Route 29

Between American Canyon Road

And Napa Junction Road

APPROVAL RECOMMENDED:

Kate Miller, Napa Valley Transportation Authority, Project Sponsor, Accepts risks identified in this PSR-PDS and attached risk register

APPROVAL RECOMMENDED:

Amani Meligy

Amani Meligy, Regional Project Manager

APPROVAL RECOMMENDED:

Celia McCuaig

Jean C.R. Finney, Deputy District Director, Transportation Planning and Local Assistance

APPROVED:

Dina El-Tawansy

Dina El-Tawansy, District Director

02/03/2023

Date

Vicinity Map



This project study report-project development support has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

11/14/2022

REGISTERED CIVIL ENGINEER *DATE*

GHD, Inc



REVIEWED BY:

Celia McCuaig

Celia McCuaig, Office Chief - Advanced Planning

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1. INTRODUCTION

The Napa Valley Transportation Authority (NVTA), in cooperation with the California Department of Transportation (Caltrans) and the City of American Canyon (City), proposes roadway improvements along State Route 29 (SR 29) within much of the City limits to address various operational and safety needs along the SR 29 corridor. These improvements are needed to improve and increase multimodal transportation opportunities within the City. Collectively these improvements are referred to herein as the American Canyon SR 29 Corridor Improvement Project (Project). The Project is located along SR 29 in Napa County, California between Post Miles (PM) 0.69 and 2.05. See Attachment A for the Project Location Map.

NVTA has begun evaluating various alternatives that: 1) maximize efficiency and safety; 2) achieve acceptable operating conditions relative to projected future demand; 3) improve air quality, economic development, and social equity; 4) are context sensitive in accord with SR 29's rural and scenic character; and 5) minimize potential impacts to the natural environment. These alternatives are:

- Alternative 1: Multimodal improvements along the SR 29 corridor from American Canyon Road to Napa Junction Road. Improvements include Class I bikeways (shared use paths) on both sides of SR 29, reconstruction of the roadway to provide consistent median width, 11-foot lanes, 12-foot shoulders on SR 29 allowing for part time bus on shoulder, and buffer areas to separate the Class I bikeways from the roadway. The project would include enhanced multimodal crossings, separating bicycle crossings from pedestrian crossings and high visibility demarcations. The project will also include signal upgrades, potentially including transit signal priority for the queue jump lanes. The existing 4-lane roadway configuration would be maintained.
- Alternative 2: Construct roundabouts along SR 29 at all major intersections except American Canyon Road. Due to high turning and side street volumes, American Canyon Road will remain a traffic signal. Alternative 2 proposes to maintain the 4-lane corridor with the same multimodal improvements as Alternative 1. At the roundabout intersections, the corridor will be widened to 6 lanes approaching the intersections, allowing necessary circulation. Locations with close intersection spacing will maintain 6 lanes along the corridor. The wider medians at roundabout approaches, necessary for speed control and deflected entries allow for multiple additional improvements including large pedestrian refuges between roadway directions. Crossings would also contain additional improvements to increase pedestrian visibility within the intersections. Roundabouts are proposed to increase overall circulation whilst providing traffic calming and enhanced intersection safety for all users.
- Both build alternatives will construct enhanced transit stops where feasible, underground existing overhead utility lines, and replace/construct new curb ramps in accordance with Caltrans Design Information Bulletin (DIB) 82-06 and construct new planter and landscape areas to improve the overall aesthetic

of the roadway. All alternatives will include bus-on-shoulder facilities to the maximum extent practicable. As currently proposed, drivers would have to yield to buses, while entering and exiting the roadway at driveways, and bus only signal phases are proposed to incorporate queue jump movements utilizing the shoulder, where right-turn movements are restricted. Inclusion of these facilities will be studied further in the Project Approval & Environmental Document (PA&ED) phase.

- No-build: the no build alternative eliminates all proposed improvements and leaves SR 29 in its current condition.

Project Limits	04-NAP-29, 0.69/2.05
Number of Alternatives	3 (2 Build, 1 No-build)
Current Capital Outlay Support Estimate for PA&ED	$3,964,000-$5,003,000
Current Capital Outlay Construction Cost Range	$44,155,900-$63,937,117
Current Capital Outlay Right of Way Cost Range	$4,884,416-$10,700,000
Funding Source	TBD
Type of Facility	Multi-lane Conventional Highway
Number of Structures	1-2
Anticipated Environmental Determination or Document	CEQA – Initial Study/Mitigated Negative Declaration NEPA – Categorical Exclusion
Legal Description	In Napa County in American Canyon, From 0.1 mile south of American Canyon Rd to 0.1 mile north of Napa Junction Rd
Project Development Category	Category 4B (Alternative 1) Category 4A (Alternative 2)

This Project is sponsored by NVTA. The remaining capital outlay support, right of way, and construction components of the project are preliminary estimates and are not suitable for programming purposes. A project report will serve as approval of the "selected" alternative. Type text here

Other approvals required during the PA&ED phase are:

- Detailed Project Alternative (Geometric Approval Drawings)
- Design Standards Decision Document
- Right of Way Data Sheet
- Storm Water Data Report
- Traffic Management Plan
- Draft and Final Environmental Document
- Cooperative Agreement (for the PS&E Phase) between all parties

A Cooperative Agreement will be required prior to the initiation of the PA&ED Phase.

2. BACKGROUND

Existing Highway

The existing SR 29 is an approximately 107-mile-long State Highway with varying functional classification. Various segments act as a conventional highway or expressway, while others, particularly through the City of Napa, feature freeway access control and interchanges. SR 29 begins at Interstate 80 in Vallejo then proceeds north through Napa County, ultimately terminating approximately 52 miles into Lake County at the SR 20 Junction. Throughout the project area, the corridor is classified as a multilane conventional highway, providing access to businesses and residents through multiple side streets as well as numerous driveways. Driveway access style varies, however larger commercial, or high-volume driveways possess short, substandard deceleration and acceleration lanes approaching and exiting the driveway. The corridor possesses a relatively linear alignment, with gentle curves transitioning into American Canyon and out of American Canyon. Currently, within the project limits, the SR 29 is posted at 55 miles per hour with an assumed design speed of 60 miles per hour. The route is maintained by Caltrans within the project area.

Project Background

In 2014 NVTA completed the SR 29 Gateway Corridor Improvement Plan (SR 29 Gateway Plan). In 2019, NVTA continued the outreach, analysis, and findings from NVTA's SR 29 Gateway Plan and undertook the development and delivery of the SR 29 Comprehensive Multimodal Corridor Plan (SR 29 CMCP). The SR 29 CMCP evaluated the most constrained portion of SR 29, which is the 11.5-mile portion that stretches from Imola Avenue (designated SR 121 east of SR 29) in the City of Napa to SR 37 in the City of Vallejo. The limits of this project are included within the SR 29 CMPC study limits. The SR 29 CMCP was created utilizing plans, policy documents, and community outreach efforts completed along the SR 29 corridor.

The objective of the SR 29 CMCP was to develop a comprehensive multimodal package of prioritized improvements that address the corridor's preeminent issues, including:

- Traffic congestion and delay
- Increased crash risks for all users
- Lack of low-stress multimodal connectivity
- Increased travel time and Reduced transit reliability

The goal of the SR 29 CMCP was to identify a package of multimodal improvements that are feasible, equitable, cost-effective, have community support, and guide future SR 29 corridor programming decisions over a 20-year timeframe based on available funding. Enhancements for multimodal travel, parallel capacity, operational, and telecommunication strategies were a key focus of the SR 29 CMCP.

The SR 29 CMCP examined the existing and future operational and safety performance of SR 29 using the Caltrans Smart Mobility Framework approach. The results of the performance analysis were combined with substantial input from the public to inform the ultimate selection of the SR 29 preferred corridor concept recommendation.

Upon review of past planning and other corridor-related documents and establishment of evaluation performance metrics, the public was again engaged for their input, and a thorough assessment of existing conditions was conducted. These combined efforts led to the identification and evaluation of a focused group of corridor solutions.

The performance metrics selected for the SR 29 CMCP were informed by the six Smart Mobility Framework objectives to ensure that the resulting improvement recommendations provide a balanced, sustainable, and multimodal assessment of current and forecasted corridor conditions. Analysis and evaluation of corridor solutions included:

- Planning level opinions of probable cost
- Mode shift and vehicle miles travelled (VMT)
- Level of traffic stress scores
- Vehicular delay and buffer time reductions
- Collision reduction benefit
- Health and air quality benefit
- Societal cost and benefit monetization factors
- Return on investment

Equal attention was given to document the beneficial outcomes of measures not directly reflected in the benefit-cost assessment. These include: Plan Consistency (with existing plans); Policy Consistency (NVTA, the City and County of Napa, City of American Canyon and Caltrans); Environmental/Institutional Sensitivity; Adaptation; Economic Development and, Community Acceptance.

The CMCP, completed in early 2020, resulted in a Preferred Corridor Plan. This Project will be the second portion of the overall corridor plan to move forward and build upon the work done in the CMCP. This Project will continue to build upon these previous studies to deliver a context sensitive solution for SR 29 within American Canyon.

Cooperative Agreement

A cooperative agreement for the PA&ED phase will be agreed upon between Caltrans and NVTA prior to the start of the PA&ED phase. Funding for the PA&ED phase has not yet been obtained, however is being actively pursued. This report will serve as the authorizing document for the cooperative agreement.

3. PURPOSE AND NEED

Purpose

Provide a multimodal and complete streets corridor that:

- Improves mobility for all users
- Improves safety for all users by incorporating Vision Zero concepts, which include strategies to eliminate all traffic fatalities and severe injuries through a systematic approach that believes traffic deaths are preventable
- Eliminates overhead utility poles
- Improves corridor aesthetics
- Reduces Vehicle Miles Traveled (VMT) by encouraging transportation mode shift, which will help to reduce regional traffic on residential streets
- Improves customer access to businesses adjacent to SR 29
- Provides improved accessibility for all modes of transportation along SR 29 between American Canyon Road and Napa Junction Road

Need

Regionally, State Route (SR) 29 provides a direct connection between counties along Interstate 80 (I-80) and I-580 and counties along US 101 in the North Bay. Locally, SR 29 is also the lifeblood of access into and out of Napa County.

Notwithstanding their disparate local context, vehicular volumes on SR 29 are comparable to other nearby state highways (SR 12 and SR 37). However, because the SR 29 Corridor functions as American Canyon's "Main Street", it experiences significant safety, aesthetic, and operational deficiencies between American Canyon Road and Napa Junction Road during weekday and weekend AM and PM peak hour conditions. The most pronounced issues in the corridor include:

- Lack of multimodal connectivity - particularly for bicycle and pedestrian access - along and across SR 29;
- Lack of low-stress routing options for bicyclists and pedestrians along SR 29;
- Lack of public transit lanes, facilities and pull outs for stops
- Lack of aesthetic benefits of landscaping along the corridor to help define American Canyon's "Main Street";
- Unprotected overhead utility poles in the State Right of Way are within the clear recovery zone
- Regional traffic congestion hinders customer access to American Canyon's "Main Street" Commercial businesses;
- Constraints at intersections cause extensive queuing and delays, and bottlenecks resulting in unreliable travel times for both motorists and public transit and traffic diverting to residential streets;
- Compromised feasibility to provide enhanced transit service due to travel time unreliability;
- Increased safety risk and conflicts between motorists and active transportation users due to unseparated facilities and high speed differentials; and

- Increased response times for public safety vehicles.

4. TRAFFIC ENGINEERING PERFORMANCE ASSESSMENT

A Traffic Engineering Performance Assessment (TEPA) was prepared for this project. It analyzed four conditions: No Build, and the 2 alternatives described earlier in this report. Additionally, the TEPA analyzed a third build alternative. This alternative, after analysis was rejected. For more information, see the Considered but Rejected Alternative section. The TEPA was submitted to Caltrans for review on March 8, 2021. The TEPA is included as Attachment B. A summary of the findings in the TEPA is provided below:

Traffic Volumes

Traffic Volumes were derived from traffic counts used in the Watson Ranch Environmental Impact Report (EIR) These counts were used to form a basis for existing traffic conditions. The Napa-Solano Regional Traffic Demand Model (TDM) was used to develop future year forecasts. The TDM projects a growth rate of approximately 40% in the AM peak hour and 20% in the PM Peak.
A summary of traffic volumes can be found in **Table 4.1**.

Table 4.1 Average Mainline Volumes

SR 29 Mainline (PM 0.7 to 2.1)	Existing Year Volume	Design Year Volume			
		No Build	Alt 1	Alt 2	Alt 3 (Rejected)
Average AM Peak Hour Throughput	3484	3643	3567	3756	3908
Average PM Peak Hour Throughput	4039	4204	4385	4537	4340

Collision Data

Collision data was provided through Caltrans Traffic Accident Surveillance and Analysis System (TASAS) - Traffic Systems Network (TSN) Reports. Data was provided for the study period from January 1, 2018 to December 31, 2020 for postmiles 0.69 to 2.05. Data showed a total of 125 collisions during this period, with 92 injury collisions and no fatalities. The Fatal and Injury collision rate was 1.1, over double the statewide average of 0.40. The total collision rate was 2.34, well over the statewide average of 0.90. Most collisions were classified as rear end (70.9%), and most collisions were attributed to speeding. See Table 4.2 for TASAS "Table B" report. Additionally, there were two collisions involving pedestrians.

Table 4.2 TASAS "Table B"

Segment	TOTAL No. of Crashes	ACTUAL Rates (per million vehicle miles)			AVERAGE Rates (per million vehicle miles)		
		Fatal Crashes	Fatal + Injury Crashes	Total(1)	Fatal Crashes	Fatal + Injury Crashes	Total(1)
NAP 29 0.69-2.05	125	0.000	**1.10**	**2.34**	0.009	0.40	0.90

(1) All reported crashes (includes Property Damage Only (PDO) Crashes)

Collision Analysis

The proposed improvements are anticipated to improve the fatal + injury crashes, by slowing down traffic, and potentially changing intersection control to roundabouts. The improved demarcations for both alternatives, as well as the improved lighting will increase overall performance of the intersections and reduce collisions. The improved pedestrian and bicycle facilities will help eliminate the vehicular collisions involving pedestrians reported.

If the roundabout alternative is selected, immediately after opening, the intersections may experience minor (PDO) collisions, such as sideswipe and rear end collisions, as drivers learn to navigate the roundabouts. As documented in a study by the Insurance Institute for Highway Safety (IIHS) in 2019, the PDO collisions can be common with multilane roundabouts as drivers learn how to navigate lanes and yield to traffic, however, once accustomed to the intersection, PDO collisions reduce. Because of multiple number of roundabouts in the area, these initial impacts are anticipated to be minor and the overall collision potential of the corridor will drop significantly. The Highway Safety Manual (HSM) contains numerous Crash Modification Factors (CMFs) that estimate the impact of certain changes along the corridor. Roundabouts range in effectiveness based on location, size etc. but collision reductions of 1% to 52% can be anticipated. As part of the next phase of the project, the roundabout alternative may explore adding turbo roundabout elements or a full turbo design to minimize PDO collisions.

Intersection Operations

Within the study area, SR 29 is a multilane conventional highway, with two lanes in either direction. Numerous turn pockets are placed along the corridor, accommodating turning storage and movements. The Traffic Engineering Performance Assessment (TEPA) analyzed the proposed alternatives using microsimulation software throughout the project area. **Table 4.3**, and **Table 4.4** present a summary of the design year (2045) Level of Service (LOS) and delay (seconds per vehicle) at each study intersection analyzed.

Table 4.3 Intersection Operations Summary Alternative 1 - Multimodal Improvements (2045)

Intersection	No Build LOS	No Build Delay	Alternative 1 LOS	Alternative 1 Delay
American Canyon Rd	F (F)	277.9 (120.1)	F (F)	189.0 (107.4)
Crawford Way	E (A)	36.1(8.7)	A (A)	6.3 (7.5)
Donaldson Way	F (D)	81.4 (53.9)	D (D)	52.7 (45.7)
Poco Way	A (A)	6.1 (3.8)	F (A)	58.6 (5.5)
Rio Del Mar	D (D)	49.0 (38.4)	E (C)	66.8 (30.8)
Eucalyptus Dr.	D (E)	35.1 (63.4)	C (D)	25.5 (50.3)
Napa Junction Rd	F (F)	104.3 (109.9)	F (C)	91.7 (28.4)

1) Delay is measured in seconds
2) Values in parentheses are PM Peak hour values.

Table 4.4 Intersection Operations Summary Alternative 2 – Roundabouts (2045)

Intersection	No Build LOS	No Build Delay	Alternative 2 LOS	Alternative 2 Delay
American Canyon Rd	F (F)	277.9 (120.1)	No Change	No Change
Crawford Way	E (A)	36.1(8.7)	A (B)	6.4 (11.7)
Donaldson Way	F (D)	81.4 (53.9)	B (B)	14.1 (19.8)
Poco Way	A (A)	6.1 (3.8)	A (A)	6.1 (7.3)
Rio Del Mar	D (D)	49.0 (38.4)	B (B)	13.1 (10.1)
Eucalyptus Dr.	D (E)	35.1 (63.4)	B (C)	11.1 (27.8)
Napa Junction Rd	F (F)	104.3 (109.9)	B (B)	10.9 (11.6)

1) Delay is measured in seconds
2) Values in parentheses are PM Peak hour values.

TEPA Findings

The TEPA analyzed the project study location with VISSIM, a microsimulation software. It found that the alternative which performed the best at intersections was Alternative 2. The efficiency of roundabouts along the corridor provided significant delay improvements with the worst-case intersection performing at an LOS C in the PM peak hour.

Operational improvements of the PM peak hour are more drastic than the improvements for the AM peak hour due to an anticipated diversion away from SR 29 to Newell Drive in the PM Peak. The Newell Drive Extension is anticipated to be constructed within a similar time period to this project and thus will have major traffic impacts. The TEPA used the Newell Drive traffic report to coordinate the effect of the projects.

Transit Improvements

NVTA, the countywide transit operator, utilizing proposed geometry and improvements to the corridor analyzed improvements anticipated to transit operations through the project area.

Currently, Vine transit operates three regional routes through the project area: 11, 11x and 29. The analysis was performed on all three routes. The Vine also operates American Canyon Transit, an on-demand shuttle that has limited fixed route during school bell times. This service mainly operates east and west of the corridor. Intersection improvements along the corridor will increase travel time reliability for the Shuttle.

The basis of the analysis was the assumption that reasonable fixed time improvements can be applied for enhancements along the corridor and could be applied to travel times throughout the corridor. These fixed time improvements were determined using this project's TEPA and a separate Express Bus Corridor Study, prepared in December 2017.

Table 4.5 Transit Travel Time Improvements – Alternative 1(2022)

Direction	Travel Time Reduction from Transit Signal Priority	Travel Time Reduction from Queue Jumps	Travel Time Reduction from Moving Stops on System	Total Travel Time Reduction
Northbound	1:25	1:15	2:00	4:40
Southbound	1:25	1:15	1:30	4:10

1. Units for Travel Time are in Minutes:Seconds

For Alternative 2, utilizing modeled vehicular travel times established within the TEPA, moving stops on system, predicted travel time reductions were established as follows:

Table 4.6 Transit Travel Time Improvements – Alternative 2(2022)

Direction	Existing Vehicle Travel Time	Travel Time from Moving Stops on System	Total Travel Time Reduction
Northbound AM	6:31	4:40	1:51
Northbound PM	4:33	3:20	1:13
Southbound AM	4:08	2:51	1:17
Southbound PM	9:00	4:39	4:21

1. Units for Travel Time are in Minutes:Seconds

Overall, both alternatives provide significant improvements to travel times throughout the corridor, shaving off as much as 50% off travel times for certain routes and directions. Alternative 1, however, with the dedicated queue jump lanes and potential for signal priority, provides a more consistent reduction in transit travel time.

TRANSPORTATION PLANNING SCOPING INFORMATION SHEET (TPSIS)

In discussions with the Office of Advance Planning (OAP), it has been determined that TPSIS will not be required for this project since this project is a multimodal focused project. Many of the issues typically covered by the TPSIS will be addressed by the project itself.

INTERSECTION CONTROL EVALUATION (ICE)

Pursuant to Caltrans Traffic Operations Policy Directive 13-02, an Intersection Control Evaluation has been developed for this project. The draft ICE determined that while roundabouts may pose immediate challenges to drivers, they would subside quickly, as the intersections were laid out in such a way that would ease use. Additionally, it noted that existing roundabouts at the First Street Interchange in Napa and the future roundabouts at Soscol Junction (EA 04-28120) will have been in place long enough to reduce the learning curve necessary for local traffic. The ICE also determined that the roundabout alternative would ultimately provide a superior flow of traffic during peak hours and would increase intersection safety for not only motorists, but for all users. The ICE Step I title sheet can be found in Attachment C. A more detailed ICE Step II will be prepared in subsequent phases.

5. DEFICIENCIES

Traffic

Existing traffic conditions along SR 29 are already congested, with more growth planned in the coming years. Many intersections already operate at substandard levels of service, with more intersections declining as traffic demand rises. Throughout the project limits, SR 29 shows signs of moderately congested and congested travel. Speed studies show that during the AM peak hour, northbound speeds average less than 60% of the free-flow speeds. The southbound averaged between 60% and 80% of free-flow speeds. During the PM peak hour, all of SR 29 in the southbound direction from American Canyon Road extending past the project limits to the intersection of SR 29 and SR 221, experiences heavy congestion, resulting in speeds below 60% of the free-flow speed. Northbound experiences slightly better conditions with much of the roadway being moderately congested or uncongested.

Weekly Travel Time Reliability is also of concern. Both AM and PM peak hours experience some form of Travel Time Reliability issues, with the Buffer Travel Indices averaging between 0.25 and 0.50.

Multimodal

There are numerous multimodal deficiencies within the project corridor. There is a notable lack of pedestrian facilities and while there is a usable shoulder, there is a

lack of dedicated bicycle facilities with separation from vehicle traffic appropriate for the speeds and volumes on SR 29. Due to these conditions, bicyclists experience a significant level of traffic stress (LTS). The entire corridor from the county line to the City of Napa is rated an LTS 4, indicating the highest level of stress on bicyclists.

Collisions

Caltrans TASAS Collision data indicates a significant number of collisions within the project area. Between January 2018 and December 2020, 125 collisions were reported on SR 29 in the project area. Through this period, the fatal collision rate and fatal + injury crash rate were 0.000 and 1.10 collisions per million vehicle miles, respectively. While the fatal collision rate was below the statewide average of 0.009 collisions per million vehicle miles, for similar facilities, the combined Fatal + Injury rate for the corridor was 1.10 collisions per million vehicle miles, which is 2.75 times the statewide average of 0.40 collisions per million vehicle miles. Additionally, the corridor experienced a total collision rate (Fatal+ Injury+ Property Damage Only) of 2.34, which is 2.6 times the statewide average of 0.90 collisions per million vehicle miles, for similar facilities.

Most collisions (70.4%) reported were rear end collisions. The second most common collision type was the broadside ("T-bone") collision (13.6%). Both types of collisions are common at intersections and often lead to higher severity ratings.

The most common Primary Collision Factors (PCFs) recorded in the project were: Speeding, Other Violations, Failure to Yield, Influence of Alcohol, Improper Turn, and Following too Close.

Table 5.1 Collision Data and Statewide Average Comparison

Segment	TOTAL No. of Crashes	ACTUAL Rates (per million vehicle miles)			AVERAGE Rates (per million vehicle miles)		
		Fatal Crashes	Fatal + Injury Crashes	Total[1]	Fatal Crashes	Fatal + Injury Crashes	Total[1]
NAP 29 0.69-2.05	125	0.000	**1.10**	**2.34**	0.009	0.40	0.90

(1) All reported crashes (includes Property Damage Only (PDO) Crashes)

Table 5.2 Corridor Collision Type

Collision Type	Number of Collisions	Percentage
Rear End	88	70.4%
Broadside	17	13.6%
Sideswipe	10	8.0%
Hit Object	4	3.2%
Head On	2	1.6%
Auto vs Pedestrian	2	1.6%
Other	2	1.6%

6. CORRIDOR AND SYSTEM COORDINATION

SR 29 is a north-south running multilane conventional highway, spanning approximately 107 miles, from Interstate 80 in Vallejo, California to its northern terminus at the intersection of SR 20 in Upper Lake. Throughout the project limits, SR 29 is classified as an "Other Principal Arterial", within the State Highway System. SR 29 is currently a Surface Transportation Assistance Act (STAA) Terminal Access Route from its beginning through postmile 36.893, allowing STAA trucks to navigate the roadway through this Project, but limiting the maximum semitrailer length to 48 feet.

This project proposes numerous multimodal improvements including transit operational enhancements, bicycle lanes and shared use paths. This project is consistent with Deputy Directive DD-64-R2 and Director Policy DP-37 which established policy of mandating context specific improvements that would improve all modes of transportation along the state system.

This project is also consistent with other regional and corridor plans including Plan Bay Area 2050, the regional transportation plan (RTPID 21-T06-034) and the SR29 CMCP, which proposed various improvements along SR 29 throughout Napa County. The basis of this project was the CMCP Segment 1.

While this project is not directly consistent with the Napa County Countywide Plan Vision 2040 which outlined various improvements and considerations that should be made during planning, it expands upon it, providing other alternatives of relieving traffic congestion, while achieving the overall goal of better circulation and safer roadways for all users.

Caltrans Office of Advanced Planning has determined that, due to the multimodal scope of this project, a Transportation Planning Scoping Information Sheet (TPSIS) is not necessary.

7. ASSET MANAGEMENT

This project currently does not have any funding from the State Highway Operation and Protection Program (SHOPP). Currently, there is no requirement to track the assets in this project since there is no SHOPP funding. In the future, if this project receives SHOPP funding, it will be subject to the Asset Management requirements for the SHOPP.

8. ALTERNATIVES

Three build alternatives and one no build alternative were identified and evaluated during development of this report. As stated above, one alternative has been removed from further consideration. Therefore, only two build alternatives and the no build alternative are discussed below.

No Build

This alternative assumes existing lane geometrics and traffic control will remain and no project or new infrastructure, trail, or roadway, will be constructed.

Alternative 1

This alternative is largely consistent with the SR 29 CMCP and includes the construction of multimodal improvements adjacent to the shoulders of SR 29. Overall improvements are as follows:

- Maintain SR 29 at 4 lanes, reducing lane widths to 11 feet
- Construct separated Class I bikeways that parallel the right shoulders of SR 29, in both directions. Island width is 5 feet for both directions. A separation width of 3 feet (not including the 2-foot Class I bikeway shoulder) will be utilized in right of way restrictive situations
- Construct 18-foot paved median (14-foot island and two 2-foot left shoulders)
- Widen right shoulders to 12 feet (including 2-foot gutter pan) to allow for part time bus on shoulder
- Improve intersections along the corridor, as described in Table 8.1
- Reduce speed limit to 35 mph (40 mph design speed) to calm traffic (Speed limit analysis will be done in PA&ED Phase)

This alternative incorporates a combination of widening, rehabilitation, and reconstruction of the existing SR 29, limiting right of way impacts where possible.

Table 8.1 Alternative 1 - Intersection Improvements

Postmile	Minor Street	Existing Intersection Controls	Proposed Intersection Controls	Multimodal Improvement
0.69	American Canyon Rd	Signal	Signal	Queue jump Enhanced bike and pedestrian features
0.93	Crawford Way	Side Street Stop	Side Street Stop	Enhanced bike and pedestrian features
0.97	Holcomb Ln	Side Street Stop	Side Street Stop	Enhanced bike and pedestrian features
1.11	Donaldson Way	Signal	Signal	Queue jump Enhanced bike and pedestrian features
1.52	Poco Way / S Napa Junction Rd	Side Street Stop	Side Street Stop	Enhanced bike and pedestrian features
1.66	Rio Del Mar	Signal	Signal	Queue jump Enhanced bike and pedestrian features
1.79	Eucalyptus Dr	Signal	Signal	Queue jump Enhanced bike and pedestrian features
2.05	Napa Junction Rd	Signal	Signal	Queue jump Enhanced bike and pedestrian features

Proposed intersections were designed considering the recommendations of the TEPA, previous studies, and local/regional plans. Special considerations were made to meet standard intersection design standards, where possible, and improve overall safety for all users of the roadway. Intersections were designed to accommodate the swept path of STAA vehicles and 45-foot buses for applicable turning and thru movements.

Alternative 2

Alternative 2 was developed as an expansion on the SR 29 CMCP. This alternative focuses on improving both multimodal capabilities and vehicular circulation throughout the corridor. Alternative 2 maintains many of the key design features in Alternative 1, along with intersection control improvements. **Table 8.2** outlines the intersection improvements proposed under Alternative 2.

Table 8.2 Alternative 2 - Intersection Improvements

Postmile	Minor Street	Existing Intersection Controls	Proposed Intersection Controls	Multimodal Improvement
0.69	American Canyon Rd	Signal	Signal	Queue jump Enhanced bike and pedestrian features
0.93	Crawford Way	Side Street Stop	Multilane Hybrid Roundabout[1] (Potential to restrict intersection to Right in Right out movements only)	High Visibility Crossing with Median Refuge
0.97	Holcomb Ln	Side Street Stop	Multilane Hybrid Roundabout[2]	High Visibility Crossing with Median Refuge
1.11	Donaldson Way	Signal	Multilane Hybrid Roundabout[2]	High Visibility Crossing with Median Refuge
1.52	Poco Way / S Napa Junction Rd	Side Street Stop	Multilane Hybrid Roundabout[2]	High Visibility Crossing with Median Refuge
1.66	Rio Del Mar	Signal	Multilane Hybrid Roundabout[2]	High Visibility Crossing with Median Refuge
1.79	Eucalyptus Dr	Signal	Multilane Hybrid Roundabout[2] (Potential to restrict intersection to Right in Right out movements only)	High Visibility Crossing with Median Refuge
2.05	Napa Junction Rd	Signal	Multilane Hybrid Roundabout[2]	High Visibility Crossing with Median Refuge

Notes:
1. Roundabout lane configuration is 2 x 1.
2. Roundabout lane configuration is 3 x 1.

Proposed intersections were designed considering the recommendations of the TEPA, previous studies, and local/regional plans. Widening of the roadway to three approach lanes at all roundabout intersections, except Crawford Way, will be necessary to provide adequate roundabout throughput volumes and prevent excessive congestion during peak hours. Special considerations were made to meet intersection design standards, where possible, and improve overall safety for all users of the roadway. Intersections were designed to accommodate the swept path of STAA vehicles and 45-foot city buses for applicable turning and thru movements.

Because of the large Inscribed Circle Diameter (ICD) necessary to accommodate three lanes while maintaining crucial performance metrics, queue jumps are not practical for this alternative. Shoulders have been designed to accommodate part time use of the shoulder, allowing buses to bypass excessive queues. These shoulders are terminated approximately 150 feet prior to the Roundabout yield line.

Three lane roundabouts also may be difficult for pedestrians to navigate. In order to avoid crossings at higher speed exits, mid-block crossings, or pedestrian hybrid beacons may be considered to ensure pedestrian and bicyclist safety while crossing SR 29. Signalization or the addition of Rectangular Rapid Flashing Beacons may be used to bring awareness and better influence speed reduction through the roundabout. The wider island widths at roundabouts allow for pedestrian refuges within the splitter and vane islands proposed. Crossings with pedestrian refuges do shorten the overall roadway distance pedestrians must cross—in total as well as in each individual crossing leg.

Eucalyptus Dr will be restricted to right-in-right-out access due to the close spacing of the Rio Del Mar and the Eucalyptus Dr roundabouts, and a future development project currently in design. Left turn and thru movements on Eucalyptus Dr will be redirected along Main St, which will be extended south to connect to the new Rio Del Mar extension. Additionally, due to lower volumes, future analysis will consider restricting Crawford Way to right-in-right-out access as well.

Preliminary Layouts and Typical Cross Sections for both Alternative 1 and Alternative 2 can be found in Attachment D.

It is recommended that the inclusion of turbo roundabout elements (i.e. raised lane dividers or rumble strips) or the turbo roundabouts be analyzed, in subsequent phases, to determine their viability in future project phases.

Nonstandard Design Features

Utilizing existing, readily available information, the following nonstandard design features have been identified as likely to occur or will potentially be needed to reduce extensive impacts to right of way, buildings and more. The existing right of way varies in width, with a minimum width of 135.7 feet. Because of its suburban location, many businesses and other structures lie adjacent to SR 29, with varying setbacks. Additionally, in multiple locations, existing BMPs lie adjacent to the

roadway, if these are classified as regulated areas, increased environmental mitigation will be required. Further examination will be required in future phases as more information is gathered. All standards documented are for an assumed design speed of 40 mph, consistent with the proposed speed limit reduction to 35 mph.

Table 8.3 Design Standard Risk Assessment

Design Standards Risk Assessment					
Alternative	Design Standard from Highway Design Manual Tables 82.1A & 82.1B	Design Standard	Proposed Nonstandard Feature	Probability of Nonstandard Design Feature Approval (None, Low, Medium, High,)	Justification for Probability Rating
1 & 2	202.2 Standards for Superelevation	R.C. (2%)	N.C. (-2%)	Medium	Nonstandard superelevation matches existing slopes which provide a maximum comfortable speed of 72 mph, exceeding the design speed (40 mph).
1 & 2	203.2 Standards for Curvature – Minimum Radius	R=5520 feet	R=4500 feet	Medium	Nonstandard radius allows for conform prior to the intersection and maintains existing slopes.
1 & 2	301.1 Lane width	12 feet	11 feet	Low	Nonstandard lane widths match alternatives proposed for speed control in planning documents. Dimensions may be altered to provide standard pavement dimensions
1 & 2	405.2 Left Turn Channelization – Lane Width	12 feet	11 feet	Low	The Left Turn Pocket width provided is 11', consistent with the thru lanes. The 2' shoulder is maintained.
1 & 2	405.3 Right Turn Channelization – Lane and Shoulder Width	12 feet	11 feet	Low	The Right Turn Pocket width provided is 11', consistent with the thru lanes. The 12' shoulder is maintained.
1 & 2	206.3 Pavement Reductions- Through Lane Drops	440 feet	Var. Match Exist	Medium	Lane drop lengths are being maintained and improved where possible.
1 & 2	1003.1(16) Bikeway Shoulder Slope	Shlds slope away from ETW	One Shoulder Drains Across	High	Necessary to provide effective drainage, directing into state drainage systems.

A Design Standards Decisions Document (DSDD) will be required in the PA&ED phase for the project so adequate documentation of the nonstandard features listed above may be performed. Proposed improvements, outside the reduction in lane widths are maintained or modified. The nonstandard lane widths are anticipated to be mitigated through lighting, speed reduction and marking improvements. Therefore, it is assumed that the build alternatives will have minimal effect on vehicle-versus-vehicle collisions and will decrease pedestrian and bicycle related collisions.

Life-Cycle Cost Analysis

A pavement Life-Cycle Cost Analysis (LCCA) was prepared for each of the three alternatives. Traffic Index values were determined using traffic volumes prepared for the TEPA and truck percentages from Caltrans' Traffic Census Program Data. The Traffic Index was calculated to be 13.0. An assumed Soil R value of 20 was chosen, consistent with R values measured in relatively close proximity (<5 miles). Consistently, Continuously Reinforced Concrete Pavement (CRCP) was determined to have a slight advantage for Agency Cost over Hot Mix Asphalt (HMA) but proved significantly more costly to users.

Pavement unit costs were determined by analyzing Caltrans Contract Cost Data for projects with relatively similar quantities. The unit prices did not account for constructability concerns and the materials' effect on other bid items. It is believed that the complexity of construction and differing material types from the existing pavement would increase costs to CRCP, potentially reversing the presented results. Because of the increase cost uncertainty of CRCP, especially with respect to a roundabout alternative (Alternative 2), HMA is anticipated to be the preferred pavement alternative and Cost Estimates have been prepared using this anticipated preferred pavement. More detailed LCCA analyses and results can be found in Attachment H.

9. CONSIDERED BUT REJECTED ALTERNATIVES

Alternative 3

During the preliminary analysis conducted at the start of the Project Initiation Document phase, there was an additional alternative considered. Alternative 3 proposed to expand SR 29 to 6 lanes and construct bicycle and pedestrian facilities similar to those in Alternative 1. A paved median island would be constructed along SR 29 to better separate the directions of traffic along the corridor. Due to overall roadway widths, certain transit improvements were not feasible with this alternative, as six lanes already exceed the available right of way and further widening will encroach on existing private infrastructure, including buildings.

Alternative 3 was analyzed along with Alternatives 1 and 2, however this analysis concluded Alternative 3 would result in the likely increase in VMT and has the potential to increase capacity on SR 29. Based upon this analysis, which is included in various technical reports included as attachments to this document, Alternative 3

has been removed from further consideration and is considered to be a rejected alternative as it is inconsistent with the California State Transportation Agency's Climate Action Plan for Transportation Infrastructure (CAPTI), does not align with the requirements of Senate Bill (SB) 743, and other State policies and goals.

10. RIGHT OF WAY

Alternative 1

The narrower cross section limits the necessary right of way impacts required for Alternative 1. Minor right of way acquisitions are anticipated for properties adjacent to southbound SR 29, with widths varying between 0 and 30 feet between American Canyon Rd and Donaldson way. Widths generally are limited to under 10 feet with the larger amounts needed at the intersections. Past the Donaldson Way intersection, right of way along SB is anticipated to be sufficient. However, the NB direction possesses numerous driveways with acceleration and deceleration lanes, requiring the acquisition of right of way. This acquisition along northbound SR 29 is anticipated from Donaldson Way to Eucalyptus Dr, where the Class I trail conforms to existing infrastructure.

Current Layouts for this alternative are designed at worst case for right of way. Cross sectional optimization may be considered in future stages to reduce right of way impacts.

Alternative 2

Alternative 2 will require similar right of way needs along the corridor as Alternative 1 but will require more acquisitions at the intersections. Due to the larger size of roundabout intersections, an increased amount of right of way is required. Additionally, this will require the complete acquisition of various properties along the corridor.

Utilities

Utility impacts are likely with each of the alternatives. Known utilities within the project location include:

- Water: City of American Canyon
- Reclaimed Water: City of American Canyon
- Sewer: City of American Canyon
- Electric (Transmission and Distribution): PG&E
- Gas (High Pressure Distribution): PG&E
- Telephone: AT&T
- Cable: Comcast Communications

Utility easements will be required for relocation of above ground facilities. The right of way needs for utility relocations and utility relocation efforts will be established and performed in future phases. Currently, positive location and depth of existing

underground utilities are not known. If existing utilities are located at shallow depths, relocation laterally and/or vertically may be required. Positive location in accordance with Chapter 17 of the Caltrans Project Development Procedures Manual will be completed in subsequent phases.

K Phase Right of Way Conceptual Cost Estimate form can be found in Attachment F.

Railroad

Immediately east of SR 29 there is an active rail line owned by California Northern Railroad, a subsidiary of Genesee and Wyoming Inc. Due to the proximity of the project to the rail, coordination with the rail company and the California Public Utilities Commission (CPUC), through the GO-88B application will be required.

11. STAKEHOLDER INVOLVEMENT

The alternatives for this Project were developed in conjunction with NVTA, Napa County, City of Napa, City of American Canyon, and Caltrans District 4. The alternatives were developed primarily utilizing the SR 29 CMCP, the SR 29 Gateway Plan and the Broadway Specific Plan.

The SR 29 CMCP outreach effort, which included the limits of this Project, was robust in its focus on reaching the diverse communities. This outreach effort included two community workshops, a Staff Working Group comprising of all the partner agencies, and a robust online public engagement campaign including an interactive mapping tool. The mapping tool was made available on the project website beginning in early November 2019 and remained "live" through March 2020. A summary of the outreach is presented below.

- Napa County residents have long expressed concerns about congestion and safety on SR 29. Most respondents reported that driving was their most frequent mode traveled on the SR 29 corridor. Few people said they walk or bicycle on the corridor currently, citing concerns about safety and a lack of dedicated paths. Transit on the corridor is not commonly used by attendees, due to concerns about travel time.
- Workshop attendees rated improving safety for people walking and driving as their highest priority for the corridor, followed by improving safety for transit and then people bicycling. Most that choose not to walk cited safety concerns or lack of designated paths. Similarly, the reason most often cited for not biking was fear for safety at 52.38%, followed by lack of paths/connections at 28.57%.
- Reducing vehicle congestion and improving signal timing were also identified as top priorities, in addition to improved connectivity for bicyclists.
- This project has also been presented in various American Canyon City Council meetings. Additionally, a project public workshop was held on October 4, 2021.

12. ENVIRONMENTAL COMPLIANCE

To identify environmental issues, constraints, costs, and resource needs, a Preliminary Environmental Assessment Report (PEAR) was prepared for the project and included as Attachment G. Potential staging areas have been included in the study area, as shown on Figure 2, and will occur within Caltrans right-of-way, a Caltrans-owned parcel, and a City of American Canyon-owned parcel. Field studies were not conducted, and technical studies have been deferred to the Project Approval and Environmental Documentation (PA&ED) phase.

The PEAR indicates that an Initial Study/Mitigated Negative Declaration (IS/MND) is the anticipated document to be prepared under the California Environmental Quality Act (CEQA). As federal funding may be used for the project, National Environmental Policy Act (NEPA) documentation may be required and is anticipated to be a Categorical Exclusion with supporting technical studies. It is currently anticipated that NVTA, as the sponsoring agency, will serve as the environmental lead agency with approximately 19 months needed to complete the CEQA/NEPA environmental process.

Refer to Attachment A of the PEAR for a complete list of technical studies anticipated to be required. The following provides a summary of each key environmental topic anticipated to be further investigated as a technical study during PA&ED.

Land Use/Planning

Temporary construction easements (TCE) and acquisition of right of way would be required from the adjacent parcels along the length of the project footprint under both build alternatives. Alternative 2 would likely require additional acquisition of right of way compared to Alternative 1 to accommodate the roundabouts proposed. Therefore, it is assumed that a land use memo would be prepared during PA&ED.

It is not expected that the project would affect any Section 4(f) resources. It is anticipated that a no use determination memo would be prepared during PA&ED.

Visual

The visual character of the site under each alternative would remain a heavily trafficked highway. Therefore, it is anticipated that the proposed improvements are largely consistent with the existing visual environment. A brief memorandum or a minor Visual Impact Assessment (VIA) addressing visual issues should be prepared. The VIA Questionnaire is included as Attachment C to the PEAR.

Air Quality

This project could include the use of federal funds; as such, it is assumed that the Federal Transportation Conformity Rule applies. However, the project may be

exempt from Transportation Conformity analysis requirements as per 40 CFR §93.126 (Exempt Projects). The project may qualify as exempt as it consists of:

1. Safety
2. Mass Transit
3. Air Quality
4. Other, including transportation enhancement activities

The project should go through the Interagency Consultation (IAC) process to determine if the project meets the exemption categories or otherwise is considered not a Project of Air Quality Concern (POAC).

In comparison to Alternative 1, Alternative 2 would most likely result in greater construction air quality impacts as the new roundabout improvements would extend the duration of construction. In terms of operational air quality impacts, Alternative 2 would most likely reduce travel time and, therefore, the associated idling with the removal of traffic signals. Alternative 2 would widen approaches to roundabouts to three lanes where needed to improve congestion and traffic flow. The additional lane would not be constructed along the entirety of the alignment and therefore would not be considered capacity enhancing.

Noise

A noise analysis may be needed to evaluate noise levels during construction at residences in the immediate vicinity of the project site or if there would be proposed travel lanes closer to noise sensitive land uses (homes) than under existing conditions. The other surrounding land uses are commercial or industrial in nature and are not considered sensitive noise receptors.

Cultural Resources

Alternative 2 would result in a greater area of disturbance in comparison to Alternative 1. This would increase the possibility of encountering unknown cultural or historical resources present within the construction footprint, and would result in potential increased impacts to cultural resources. Alternative 1 would reduce potential impacts to cultural resources to the extent feasible.

It is anticipated that an Archaeological Survey Report (ASR) and an Historic Property Survey Report (HSPR) would be prepared during the PA&ED phase, as well as Section 106 Consultation. AB 52 Tribal consultation will also be required per state law. This additional research and consultation will be provided during the PA&ED phase.

Biological Resources

Alternative 1 may impact a drainage channel or other sensitive resources as some portions of the roadway would need to be widened. Alternative 2 would most likely have the greatest impact to habitat and wildlife in the area as the intersections would need to be widened more in comparison to Alternative 1 and may also encroach into a

drainage channel and adjacent riparian habitat. A wetland delineation and Natural Environment Study would have to be prepared during PA&ED.

The project will likely require an US Army Corps of Engineers Clean Water Act Section 404 permit and 1602 CDFW Lake and Streambed Alteration Agreement.

Greenhouse Gas Emissions and Climate Change

Construction activities for Alternative 1 would be limited in scope and duration, consisting of improvements to approximately 1.7 mile of roadway and lasting less than a year. In addition, the project does not include construction activities associated with higher greenhouse gas (GHG) emissions such as the use of significant amount of heavy construction equipment, substantial earth-moving activities, or import/export of a significant amount of material. Alternatives 1 and 2 would be similar with respect to the duration of construction and use of heavy equipment. However, quantification of construction emissions is required and should be prepared for the project file. The same emissions analysis can be used for both GHG and Air Quality.

The project is anticipated to improve traffic operations and safety, as well as provide some reduction in traffic delay and existing and projected long-term traffic congestion. Alternative 1 would not increase the operational GHG emissions above existing operations, and would not result in a significant GHG impact if the following criteria are met:

- The project is not capacity-enhancing, and
- The project would improve, or reduce, operational emissions as a result of increased efficiency and decreased delay.

However, as a congestion relief project, a quantitative analysis for operational and construction GHG emissions would be required. Quantification of operational GHG emissions was included as part of the ICE report prepared for the project and should be identified in a Climate Change Memorandum. Fuel consumption estimates for all alternatives would be calculated for each alternative. Measures to reduce GHG emissions will be necessary and should be accounted for in the cost estimate for all project alternatives.

The proposed project site is outside the coastal zone and not in an area subject to sea-level rise. Accordingly, direct impacts to transportation facilities due to projected sea-level rise are not expected. The project location is just outside of the area identified as 'moderate' level of concern for wildfire exposure in the 2025, 2055, and 2085 Representative Concentration Pathways (RCP 8.5) climate change scenario. However, given the recent history of wildfires in Napa and Sonoma Counties, it is acknowledged that wildfires are an ever-present risk throughout the general project vicinity.

Construction of both alternatives would generate GHG emissions; however, Alternative 2 results in slightly greater GHG impacts from inclusion of roundabouts

and associated approach lanes. Operational GHG impacts may be reduced under Alternative 2 compared to Alternative 1, as the addition of travel lanes approaching the roundabouts would reduce the travel times of vehicles.

Half of California's GHG emissions are generated by the transportation sector, therefore, reducing Vehicle Miles Traveled (VMT) is considered an effective strategy in pursuing California's long-term climate goals. Projects that are capacity-enhancing, such as the addition of through lanes on existing or new highways, would likely lead to a measurable and substantial increase in vehicle travel (OPR 2018). While Alternative 2 improves corridor and intersection operations, it is not anticipated to significantly enhance capacity, as the additional travel lanes would not be implemented along the entirety of the project, only at the approaches to each of the roundabouts. Alternative 1 would not provide any additional capacity and therefore is unlikely to result in an impact related to VMT. A Vehicle Miles Traveled Decision Document (VMTDD) is included as Attachment L.

Direct impacts from the environmental effects of climate change (i.e., sea-level rise, wildfire) would be the same for both alternatives.

Hazards and Hazardous Materials

Hazardous waste created by sign posts, guardrail posts and Aerially Deposited Lead (ADL) are likely to be encountered during construction of this project. This project was constructed prior to the 1960s. Due to the age and the use of leaded gasoline in the past, lead deposits due to vehicular emissions along the corridor are likely adjacent to the highway. A site investigation and soil analysis will be required in the PA/ED phase to determine concentrations of lead. Depending on concentration, soils containing ADL, may be able to be deposited on site, under the pavement section or under ample cover. However, this soil may not be placed less than 5 feet above the groundwater table. In the event that concentrations exceed minimum limits or that ample cover cannot be provided, additional cost will be incurred to dispose of contaminated soils off site.

Hydraulics

The project site, inclusive of the extent of the larger footprint of Alternative 2, is not located within a Federal Emergency Management 100-year flood zone (FEMA 2020).

Water Quality

The project site is not located within or immediately adjacent to a body of water such as a river or creek. However, there are several riverine drainages located adjacent to SR 29 (National Wetlands Inventory, USFWS 2020). Because Alternative 1 may require the roadway be widened marginally to allow for the additional bus queues, lanes, and multi-use paths, the project has the potential to impact these drainages. Alternative 2 would widen the roadway significantly more than under Alternative 1, which may result in increased impacts to adjacent drainages.

An aquatic resource delineation will need to be conducted to determine if these drainages are jurisdictional and their extent. If they are determined to be jurisdictional, regulatory agency permits may be required to ensure potential impacts to these jurisdictional features are minimized to the extent feasible and adequately mitigated. At this time, it is assumed that a 401 Certification will be required from the Regional Stormwater Quality Control Board.

The project is also subject to water quality standards set by the Regional Water Quality Control Board and the Bay Area Stormwater Management Agencies Association (BASMAA). Water quality and treatment measures will be required to comply with these regulations as well as Caltrans' National Pollutant Discharge Elimination System (NPDES) Permit.

An evaluation of potential water quality impacts would be prepared during PA&ED.

Paleontology

The project would include construction-related excavation; however, the project area is not known for having a high sensitivity for paleontological resources or resources on the National Registry of Natural Landmarks. Paleontological resources are not anticipated at the project site and a clearance memo will be prepared during the PA&ED phase.

13. FUNDING

It has been determined that this project would be eligible for Federal-aid funding if funding became available. No federal funding source has been identified at this time.

NVTA, the project sponsor, is actively pursuing funding for this project, through state and federal discretionary grant programs. To date, NVTA has applied for One Bay Area Grant (OBAG) funds to provide funding for the Project Approval and Environmental Document (PA/ED) phase. Once PA/ED is complete, it is anticipated additional funding sources/agencies will become accessible to move the project into the Plans, Specifications, and Estimate (PS&E) and construction phases. Current identified potential funding sources include: Future Safe Streets for All, Rebuilding American Infrastructure with Sustainability and Equity (RAISE), the Reconnecting Communities and Rural Transportation Program under Bipartisan Infrastructure Law. Additionally, this project is likely competitive for Solutions for Congested Corridor and Local Partnership Program Funding under California Senate Bill 1 (SB1).

Capital Outlay Project Estimate

	Range of Estimate		STIP Funds		Other Funds	
	Construction	Right of Way	Construction	Right of Way	Construction	Right of Way
Alternative 1	$44,155,900-$53,147,808	$4,884,416-$6,000,000	TBD	TBD	TBD	TBD
Alternative 2	$53,119,800-$63,937,117	$8,916,667-$10,700,000	TBD	TBD	TBD	TBD

The level of detail available to develop these capital outlay project estimates is only accurate to within the above ranges and is useful for long-range planning purposes only. The capital outlay project estimates should not be used to program or commit State-programmed capital outlay funds. Preliminary Cost Estimates can be found in Attachment E.

Capital Outlay Support Estimate

Capital outlay support estimate for programming PA&ED in the 2023 Fiscal Year for this project: $5,003,000

14. DELIVERY SCHEDULE

Project Milestones		Scheduled Delivery Date (Month/Day/Year)
PROGRAM PROJECT	M015	12/30/2022
BEGIN ENVIRONMENTAL	M020	4/03/2023
CIRCULATE DPR & DED EXTERNALLY	M120	1/08/2024
PA & ED	M200	06/28/2024

The anticipated funding fiscal year for construction is 2025/26.

15. RISKS

There are 21 risks identified in the Level 3 risk register, which is included as Attachment I. Most of the risks are associated with environmental, project management, right of way, utilities, design, and construction. The top 5 identified risks are as follows: Utility Verification, Discovery of Hazardous Materials, Condemnation Required, Right of Way Capital and Project Funding/Timing.

16. EXTERNAL AGENCY COORDINATION

This Project is considered to be a delegated project in accordance with the Stewardship and Oversight Agreement between the United States Federal Highway Administration, California Division (FHWA) and the State of California Department of Transportation (Caltrans) approved on May 28, 2015. Therefore, no FHWA coordination or approval requirements are anticipated.

Although this project does not require the coordination of the FHWA, the project does lie along the national highway system. As such, it should be designed to minimum AASHTO standards to the maximum extent possible.

The project requires the following coordination:

US Army Corps of Engineers
Department of the Army Permit for:
Clean Water Act Section 404

California Department of Fish and Wildlife
Lake and Streambed Alteration Agreement

General Permits
Standard Permits (Individual Permit or Letter of Permission)

Regional Water Quality Control Board
Clean Water Act Section 401
Water Quality Certification

Local Agency
Cooperative Agreements with City of American Canyon and Napa Valley Transportation Authority
Maintenance Agreement with Napa Valley Transportation Authority
Maintenance Agreement with City of American Canyon

Railroads
Railroad Agreement for at-grade or separated-grade crossings with California Northern Railroad, a subsidiary of Genesee and Wyoming Inc

California Public Utilities Commission
Railroad coordination through GO-88B application.

17. PROJECT REVIEWS

Field Review Lindsey Van Parys Date 06/02/2020
District Maintenance Monique Nguyen Date 10/24/2021
District Traffic Safety Engineer Bahman Zarechain Date 10/24/2021
Headquarters Project Delivery Coordinator Armando Lee Date 10/24/2021
Project Manager Ricky Gao Date 06/30/2022
Project Manager Amani Meligy Date 06/30/2022
FHWA Lanh Phan Date 10/14/2021
District Safety Review Haixiong Xu Date 03/29/2022
Constructability Review Jeff Hupe Date 10/14/2021
Other Date

18. PROJECT PERSONNEL

Name	Title/Division	Representing	Phone
Danielle Schmitz	Project Manager	NVTA	(707) 259-5968
Mimy Hew	Advance Planning Senior	Caltrans	(510) 960-0917
Amani Meligy	Project Manager	Caltrans	(510) 715-8393
Evelyn Gustavo	Freeway &Highway Operations	Caltrans	(510) 867-6036
Stephen Haas	Design Office Chief	Caltrans	(510) 407-8396
Solomon Tesfe	District Design Liaison	Caltrans	(510) 418-7743
James Chuang	Advance Planning Oversight	Caltrans	(510) 421-8348
Kathleen Reilly/ Andy Do	Hydraulics	Caltrans	(510) 286-4860
Celia McCuiag	Advance Planning Office Chief	Caltrans	(510) 508-5708
Michael O'Callaghan	Right of Way Local Programs	Caltrans	(510) 529-5881
Tom Rosevear	Environmental	Caltrans	(510) 506-1508
Lindsey Van Parys	Project Manager	GHD	(916) 245-5220

19. ATTACHMENTS (NUMBER OF PAGES)

A. Location Map (1)
B. Traffic Engineering Performance Assessment (48)
C. Intersection Control Evaluation (Step I) Title Sheet (1)
D. Design Alternatives Exhibits (14)
E. Preliminary Cost Estimates (20)
F. K Phase Right of Way Conceptual Cost Estimate (8)
G. Preliminary Environmental Analysis Report (24)
H. Life-Cycle Cost Analysis Memo (24)
I. Risk Register (2)
J. Complete Streets Decision Document (5)
K. Stormwater Data Report (47)
L. Vehicle Miles Traveled Decision Document (5)
M. TMP Data Sheet (4)
N. Quality Management Plan (12)
O. Design Scoping Index (15)

ATTACHMENT A

Location Map



N

0 1000 2000

1 inch = 1000 ft.

GHD

NVTA
ROUTE 29 IN AMERICAN CANYON
COMPLETE STREETS IMPROVEMENTS PROJECT

PROJECT LOCATION MAP

Project No. **0419000297**
Date **9/7/2021**

Attachment 1

Filename: N:\US\Roseville\Projects\561\11187559\00-SR 29 Am Can PID Project\Design- CAD\Project Location Map.dwg
Plot Date: 10 September 2021 2:56 PM

ATTACHMENT B

Traffic Engineering Performance Assessment

Memorandum

April 27, 2021

To:	Rebecca Schenck, NVTA	Project:	SR 29 PID
From:	Kenneth Isenhower III, EIT Lindsey Van Parys, PE	Ref/Job No.:	11187559
CC:		File No.:	C2641MEM006 - TEPA.DOCX

Subject: Traffic Engineering Performance Assessments

1. Introduction

A Traffic Engineering Performance Assessment (TEPA) was prepared for State Route 29 (SR 29) between American Canyon Rd (PM 0.69) to Napa Junction Rd (PM 2.05). This TEPA provides analysis that can be used as the basis for the State Route 29 Multimodal Improvements Project and other future traffic studies to be prepared for this project.

The SR 29 corridor was studied recently within the SR 29 Comprehensive Multimodal Corridor Plan (CMCP). This CMCP studied corridor improvements along SR 29 from SR 37 in the south to just past the Imola Avenue (SR 121) interchange in the north, a stretch of approximately 11.5 miles.

This study focuses on SR 29 through the City of American Canyon, south of American Canyon Road to north of Napa Junction Road. This encompasses a more narrowed focus of the 1.6 miles of SR 29.

2. Traffic Operations

SR 29 experiences severe congestion during the AM and PM peak hours and with expected growth in the area, conditions are not anticipated to improve. SR 29 is the key roadway connecting SR 37 and the City of Vallejo in the south to SR 221, SR 12, and communities to the north. SR 29 also provides local circulation within American Canyon. There are currently no approved and funded improvements to address the congestion issues the highway experiences through American Canyon.

The purpose of this project would be to identify potential mode shifting improvements for the SR 29 corridor through American Canyon that will, in particular, provide enhanced and safer modal travel alternatives, including walking, bicycling and transit, for localized trips within the American Canyon community. Such shifting of travel modes will accomplish two specific goals within the corridor, including reducing motor vehicle travel on SR 29 and providing residents with alternative travel options who are frustrated with the current congested conditions on SR 29. The improvements considered during the analysis include the following:

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- Multi-Modal improvements along SR 29, including Class I shared use path, pedestrian refuge islands, etc.
- Intersection Control Improvements (i.e. roundabouts and enhanced signals)
- Roadway widening

2.1 Study Locations

The following intersections were analyzed for Existing, Year 2045 No Build Conditions, and all Year 2045 alternatives conditions:

- Napa Junction Road & SR 29
- Eucalyptus Drive & SR 29
- Rio Del Mar & SR 29
- Poco Way/S Napa Junction Road & SR 29
- Donaldson Way & SR 29
- Crawford Way & SR 29
- American Canyon Rd & SR 29

2.2 Alternatives

The existing conditions of SR 29 do not meet the needs of all users for the corridor. SR 29 lacks pedestrian, bicycle, and transit facilities along the entire study corridor. The following alternatives provide combinations of vehicular and non-motorized improvements:

Year 2045 No Build Conditions

Year 2045 is considered the base condition with approximately 20 years of growth in the study vicinity. No roadway improvements along SR 29 are assumed to be constructed. Under Year 2045 No Project conditions, two new connections to SR 29 have been identified via Eucalyptus Drive and Rio Del Mar. Both of these roadways would form four-legged intersections. Additionally, the Newell Drive Extension, as proposed within the Watson Ranch Specific Plan, is assumed to have been constructed, extending Newell Drive to South Kelly Road. This extension will provide an alternative route for commuters entering the City of American Canyon from the east via American Canyon Road and from the south via Flosden Road. Southbound commuters could access the Newell Drive Extension via Paoli Loop Road or South Kelly Road, bypassing SR 29, relieving some demand.

Alternative 1 – Multi Modal Improvements Alternative

Alternative 1 builds upon Year 2045 No Build Conditions, adding improvements identified in the SR 29 CMCP. Alternative 1 proposes the construction of multimodal improvements along the SR 29 corridor south of American Canyon Road to north of Napa Junction Road. This alternative would maintain the existing four-lane roadway configuration and add median separated Class I shared use paths on both sides of the roadway, eight foot shoulders, pedestrian refuge islands at intersections, and landscaped planting strips to separate the Class I paths from vehicle traffic. Transit improvements include queue jump lanes and traffic

signal priority. Queue jump locations were proposed at Napa Junction Road, Donaldson Way, and American Canyon Road and identified the use of shoulder running to increase efficiency and improve transit service.

Alternative 2 – Roundabout Alternative

Alternative 2 proposes construction of roundabouts at all major intersections with the exception of the intersection of American Canyon Road as well as the improvements identified in Year 2045 No Build. The roundabouts were analyzed to provide acceptable delays and minimal queuing to ensure effective corridor operations. The roundabouts were determined to need three circulation lanes in the northbound and southbound direction and would require expansion of SR 29 from a four lane facility to a six lane facility. This alternative proposes limited multimodal improvements, including median separated Class 1 shared use paths and staged crossings through the splitter islands at each roundabout. Additional improvements such as pedestrian signals at mid-block locations or Rapid Rectangular Flashing Beacons at intersections may also be added.

This alternative will identify a preliminary understanding of the required lane geometrics and right-of-way if roundabouts are chosen to be constructed.

Alternative 3 – Six Lane Alternative

Alternative 3 proposes one additional lane in the northbound and southbound directions along SR 29 as well as the improvements identified in Year 2045 No Build. This alternative would increase vehicular capacity by expanding SR 29 from a four-lane corridor to a six-lane corridor. With the additional lane in either direction, the multi-modal improvements would be limited to bicycle and pedestrian only. Due to right-of-way constraints, transit improvements including queue jump lanes and part-time shoulder running would not be accommodated in this alternative. Multi-modal improvements for this alternative would consist of one of the following combinations:

- Class I shared use path

OR

- Class IV bikeway, six-foot sidewalk

OR

- Class II bike lanes, six-foot sidewalk

All improvements would be added to both sides of the corridor to maximize comfort and ease of travel for users.

3. Existing Conditions

Access to the City of American Canyon is restricted to SR 29 from the north, American Canyon Road from the east, and SR 29 and Flosden Road from the south. The limited connections are due to the topographical constraints of the City of American Canyon. American Canyon is situated in between a mountain range to

the east and the Napa River to the west. SR 29 provides the only continuous route from Vallejo to the Napa Valley to the north.

Existing traffic counts used in this study originate from the Watson Ranch EIR which were conducted in May 2017. Existing counts were not able to be collected due to the current pandemic and stay-at-home order as well as the guidance put out by Caltrans in the TOPD 20-04 stating that new counts should be supplemented with historical data to determine "existing" (pre-pandemic) conditions. This will be further explored using "big data" platforms in discussions with Caltrans Highway Operations during the PA&ED.

Existing conditions as well as all Year 2045 conditions were analyzed using the VISSIM micro-simulation software. Existing lane geometrics and existing signal timings were placed within the VISSIM models to replicate existing traffic pattern conditions. The VISSIM model was then calibrated to within 5% of existing intersection throughputs as well as within 2 minutes of travel time to ensure a representative model. Vehicle throughput is based on the total turning movements within a specific study intersection. Travel time limits are defined as Kimberley Drive to Napa Junction Road.

Table 1 presents the existing conditions level of service (LOS) as determined by the VISSIM model.

Table 1 – Existing Conditions Level of Service (2017)

#	Intersection	Control Type[1,2]	VISSIM AM PH		VISSIM PM PH	
			Delay	LOS	Delay	LOS
1	Napa Junction Rd & SR 29	Signal	75.4	E	146.4	F
2	Eucalyptus Dr & SR 29	Signal	12.7	B	4.1	A
3	Rio Del Mar & SR 29	Signal	24.8	C	81.4	F
4	Poco Way/S Napa Junction Rd & SR 29	TWSC	4.9	A	23.6	C
5	Donaldson Way & SR 29	Signal	66.4	E	62.9	E
6	Crawford Way & SR 29	TWSC	12.2	B	35.1	E
7	American Canyon Rd & SR 29	Signal	60.0	E	10.8	B

Notes:
1. TWSC = Two Way Stop Control
2. LOS = Delay based on worst minor street approach for TWSC, average of all approaches for Signal

As presented in Table 1, five of the seven study intersections are currently operating at LOS E or LOS F. LOS E is consider the point at which unstable flow starts to occur, the volume starts to reach the available capacity, the limit of acceptable delay is reached, and long cycle lengths with poor progression is experienced.

Table 2 presents the existing conditions vehicle throughput.

Table 2 – Existing Conditions Vehicle Throughput

#	Intersection	Intersection Total Throughput							
		AM Peak Hour				PM Peak Hour			
		-5%	Count	VISSIM	5%	-5%	Count	VISSIM	5%
1	Napa Junction Rd & SR 29	3,570	3,759	3,570	3,947	3,788	3,987	3,954	4,186
2	Eucalyptus Dr & SR 29	3,474	3,657	3,516	3,840	3,768	3,966	3,880	4,164
3	Rio Del Mar & SR 29	3,490	3,674	3,540	3,858	3,795	3,995	3,910	4,195
4	Poco Way/S Napa Junction Rd & SR 29	3,296	3,469	3,339	3,642	3,695	3,889	3,789	4,083
5	Donaldson Way & SR 29	3,526	3,712	3,553	3,898	3,940	4,147	4,166	4,354
6	Crawford Way & SR 29	2,657	2,797	2,822	2,937	3,605	3,795	3,703	3,985
7	American Canyon Rd & SR 29	3,880	4,084	4,051	4,288	4,773	5,024	4,870	5,275

As presented in Table 2, all study intersections were calibrated within 5% of the Watson Ranch EIR turning movement counts. Throughput was used as the main determiner of calibration. If a micro-simulation model is simulating too much traffic, the congestion and slowdowns experienced in the field are not accurately represented and improvements could be over designed. If not enough traffic throughput is accounted for, the network could incorrectly calculate intersection performance and overlook locations requiring improvement.

A root mean square percentage error (RMSPE) was calculated for the corridor as a guide on the effectiveness of the calibration effort and acceptance target range based on the flow of the corridor. A RMSPE provides a comparison of modeled volumes to a physical count. Calibration acceptance targets, that are implemented by numerous other state Department of Transportations as well as the Federal Highway Administration, have been established to be within 15% of the flow rate for corridors. The RMSPE for SR 29 was determined to be 3.7% for the AM and 3% for the PM peak hour. Thus, the existing VISSIM model is determined to be calibrated and effectively represent the AM and PM peak hour conditions.

National Performance Management Research Data Set (NPMRDS) data was used as a basis for travel time reliability. NPMRDS data was compiled for weekday (Tuesday to Thursday) AM (7 to 8 am) and PM (4:30 to 5:30 pm) peak hours for an entire year. This allows for any possible seasonal variations to be smoothed out and an average user experience to be established.

Table 3 presents Existing Conditions travel times along the SR 29 corridor.

Table 3 – Existing Conditions Calibrated to NPMRDS Travel Time (Minutes:Seconds)

	Existing Calibrated Travel Time (Minutes)		Google Maps Travel Estimates	
Source	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Northbound				
NPMRDS	06:27	04:30	3-8	3-8
VISSIM	06:31	04:33	minutes	minutes
Difference	00:05	00:03	-	-
Southbound				
NPMRDS	03:53	07:15	3-6	5-14
VISSIM	04:08	09:00	minutes	minutes
Difference	00:15	01:45	-	-

As presented in Table 3, VISSIM travel times were calibrated to within 15 seconds of NPMRDS data for northbound AM and PM and southbound AM peak hours. Southbound PM was calibrated to within 1 minute and 45 seconds. The existing network was deemed calibrated. Google maps travel time estimates the travel time to be approximately three to eight minutes for the NB direction in the AM and PM peak hours and three to six minutes in the AM peak hour and five to 14 minutes in the SB direction for the PM peak hour. The estimated travel times from NPMRDS and VISSIM both fall within these ranges.

4. Future Conditions and Alternatives

The Napa-Solano Regional Travel Demand Model (NSR TDM) was used to develop the Future Year forecast (Year 2045). Year 2045 was determined to be the forecasted year as this is approximately 20 years into the future when the current General Plan Build-Out is expected to occur in the study area. A growth projection was obtained using a straight line evaluation from the TDM. The evaluation captured all links contributing as an input volume into the study area from the north and south. These inputs include SR 29, American Canyon Road, and Flosden Road via American Canyon Road from the south and SR 29 only from the north as there are currently no other routes into the City. The TDM projects a net growth rate of approximately 40% in the AM peak hour and 20% in the PM peak hour. A review of existing volumes indicates that the AM volume on SR 29 in the project area is approximately 20% lower than the PM volume, which is not consistent with the growth projections. Based on the NSR TDM and for the purpose of the PSR, an average growth rate of 30% was utilized in the AM and PM to reflect the base Year 2045 conditions. This needs to be further investigated during the PAED phase and any adjustments for model anomalies need to be made at that time.

For the PAED phase, we recommend the following:

Forecasting Methodology

Two methods are typically used for forecasting: 1) Delta Method and 2) Factor Method. Sensitivity testing with the two methods is utilized and the findings presented to the Caltrans Office of Forecasting. The

appropriate method for forecasting should then be established based on the input and feedback from the Caltrans Office of Forecasting.

Conversion of Peak Period Inbound Link Volumes to Peak Hour Inbound Link Volumes and Turning Movement Volumes

It is our understanding that the available travel demand models will provide link/approach volumes for the peak period. These volumes need to be converted into peak hour. One of the methods utilized typically is to determine the ratio of the peak hour volumes to peak period volumes obtained thru counts or other data. Following the determination of the peak hour approach link volumes, Year 2045 turning movement counts were computed using techniques provided in the National Cooperative Highway Research Program (NCHRP 765) Report - Analytical Travel Forecasting Approaches for Project-Level Planning and Design. This can be accomplished using the directional method, which is most commonly used when the existing turning movement counts and directional link volume data are available. Prior to finalizing the forecasts, these techniques should be reviewed with Caltrans Office of Forecasting.

4.1 Year 2045 No Build Conditions

Year 2045 No Build conditions were simulated using existing signal timings and intersection controls. Two roadway extension projects are projected to occur in the next 20 years at the intersections of Eucalyptus Road/SR 29 and Rio Del Mar/SR 29. These two intersections were analyzed as four-legged intersections compared to their existing three-legged configurations. All other intersections were assumed to have the same lane geometrics as existing conditions. The Newell Drive Extension is projected to be completed prior to 2045 and thus has been factored within this analysis. The projected growth was applied to all turning movement counts as described in the previous section. Table 4 presents the LOS results of the VISSIM micro-simulation analysis of the Year 2045 No Build conditions. Table 5 presents the Year 2045 No Build conditions throughput at all study intersections. Table 6 presents the Year 2045 No Project conditions travel time along the SR 29 corridor.

Table 4 – Year 2045 No Build Conditions Level of Service

#	Intersection	Control Type[1,2]	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Napa Junction Rd & SR 29	Signal	104.3	F	109.9	F
2	Eucalyptus Dr & SR 29	Signal	35.1	D	63.4	E
3	Rio Del Mar & SR 29	Signal	49.0	D	38.4	D
4	Poco Way/S Napa Junction Rd & SR 29	TWSC	6.1	A	3.8	A
5	Donaldson Way & SR 29	Signal	81.4	F	53.9	D
6	Crawford Way & SR 29	TWSC	36.1	E	8.7	A
7	American Canyon Rd & SR 29	Signal	277.9	F	120.1	F

Notes:
1. TWSC = Two Way Stop Control
2. LOS = Delay based on worst minor street approach for TWSC, average of all approaches for Signal

As presented in Table 4, four of the seven are projected to operate at LOS E or F in the AM peak hour and three in the PM peak hour are projected to operate at LOS E or F. Further breakdown of intersection operations and increase in delay is projected due to intersections reaching or exceeding the available capacity by the Year 2045.

Table 5 – Year 2045 No Build Conditions Vehicle Throughput

#	Intersection	AM Peak Hour		PM Peak Hour	
		Existing	Yr 2045	Existing	Yr 2045
1	Napa Junction Rd & SR 29	3,570	3,560	3,954	4,168
2	Eucalyptus Dr & SR 29	3,516	3,682	3,880	4,009
3	Rio Del Mar & SR 29	3,540	3,805	3,910	4,368
4	Poco Way/S Napa Junction Rd & SR 29	3,339	3,525	3,789	3,798
5	Donaldson Way & SR 29	3,553	3,801	4,166	4,117
6	Crawford Way & SR 29	2,822	2,887	3,703	3,734
7	American Canyon Rd & SR 29	4,051	4,240	4,870	5,235

As presented in Table 5, the corridor is projected to accommodate an average of 6.5% more vehicles in the AM and PM peak hours. However, the increase in growth is primarily from side street growth and not mainline or northbound/southbound through movements. The northbound and southbound movement could grow but with the Newell Drive Extension providing a bypass route, a diversion of vehicles is expected to occur.

Table 6 – Year 2045 No Build Conditions Travel Time (Minutes:Seconds)

Scenario	AM Peak Hour	PM Peak Hour
	Northbound	
Existing	06:31	04:33
Yr 2045 NB	12:16	08:21
Difference	05:45	03:48
	Southbound	
Existing	04:08	09:00
Yr 2045 NB	04:18	07:06
Difference	00:10	01:54

As presented in Table 6, travel times through the corridor are expected to increase in the northbound direction by almost six minutes in the AM peak hour and almost four minutes in the PM peak hour. Southbound is not expected to increase substantially as there is not much congestion today for the AM peak hour as commuters predominantly head into Napa for work. Southbound PM peak hour is expected to decrease due to the traffic diversion from SR 29 to Newell Drive. This would subsequently reduce demand for the southbound left turn movement at American Canyon Road/SR29. The southbound left has heavy flows today but with the bypass route of Newell Drive, this movement is projected to lighten resulting in additional split allocation to other phases.

4.2 Alternative 1 – Multi-Modal Improvements Alternative

Alternative 1 provides multi-modal additions to the SR 29 corridor. Currently, there is a lack of multi-modal connection or facilities along the study corridor of SR 29. With the lack of facilities, SR 29 is not currently an inviting roadway for alternative modes of travel. Alternative 1 looks at the addition of pedestrian and bicycle facilities coupled with an improved transit system. The pedestrian and bicycle facilities would include a Class I path on either side of the SR 29 corridor, while the transit improvements would provide queue jump lanes and permit part-time shoulder use for buses to access during heavy congestion. The amount of traffic shifted from auto to alternative modes is detailed in the SR 29 CMCP Appendix F.

Table 7 presents the Year 2045 LOS conditions with Alternative 1 improvements. Table 8 presents the Year 2045 Alternative 1 conditions throughput at all study intersections. Table 9 presents the Year 2045 Alternative 1 conditions travel time along the SR 29 corridor.

Table 7 – Year 2045 Alternative 1 Conditions Level of Service

#	Intersection	Control Type[1,2]	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Napa Junction Rd & SR 29	Signal	91.7	F	28.4	C
2	Eucalyptus Dr & SR 29	Signal	25.5	C	50.3	D
3	Rio Del Mar & SR 29	Signal	66.8	E	30.8	C
4	Poco Way/S Napa Junction Rd & SR 29	TWSC	58.6	F	5.5	A
5	Donaldson Way & SR 29	Signal	52.7	D	45.7	D
6	Crawford Way & SR 29	TWSC	6.3	A	7.5	A
7	American Canyon Rd & SR 29	Signal	189.0	F	107.4	F

Notes:
1. TWSC = Two Way Stop Control
2. LOS = Delay based on worst minor street approach for TWSC, average of all approaches for Signal

As presented in Table 7, four of the seven study intersections are projected to operate at LOS E or LOS F in the AM peak hour but only one intersection in the PM peak hour is projected to operate at LOS F.

Table 8 – Year 2045 Alternative 1 Conditions Vehicle Throughput

#	Intersection	AM Peak Hour		PM Peak Hour	
		No Build	Alt 1	No Build	Alt 1
1	Napa Junction Rd & SR 29	3,560	3,683	4,168	4,382
2	Eucalyptus Dr & SR 29	3,682	3,659	4,009	4,221
3	Rio Del Mar & SR 29	3,805	3,582	4,368	4,343
4	Poco Way/S Napa Junction Rd & SR 29	3,525	3,334	3,798	4,052
5	Donaldson Way & SR 29	3,801	3,623	4,117	4,528
6	Crawford Way & SR 29	2,887	2,872	3,734	3,904
7	American Canyon Rd & SR 29	4,240	4,218	5,235	5,269

As presented in Table 8, the throughput is projected to remain flat in the AM peak hour but increase in the PM peak hour. The reason for the constant projection in the AM and increase in the PM peak hour of traffic volumes could be due to the unserved demand that is unable to be served under the Year 2045 No Build

conditions. With the reduction of mainline volumes, cycle length and the current allocation to each phase may be adjusted to accommodate more side street traffic that is unserved in the Year 2045 No Build conditions.

Table 9 – Year 2045 Alternative 1 Conditions Travel Time (Minutes:Seconds)

Year 2045 Scenario	AM Peak Hour	PM Peak Hour
Northbound		
No Build	12:16	08:21
Alt 1	09:01	05:36
Difference	03:15	02:45
Southbound		
No Build	04:18	07:06
Alt 1	03:50	05:02
Difference	00:28	02:04

As presented in Table 9, the travel times are projected to decrease between 11% and 33% from Year 2045 No Build when compared to Alternative 1. The greatest amount of time saved is projected for the northbound AM peak hour with over three minutes in travel time savings followed by northbound PM peak hour with approximately 2 minutes and 45 seconds saved.

4.3 Alternative 2 – Roundabout Alternative

Alternative 2 analyzed all the study intersections, except the intersection of American Canyon Road/SR 29, as a roundabout controlled intersection. The intersection of American Canyon Road/SR 29 was not analyzed as a roundabout due to the extremely heavy southbound left movement. This movement has too many conflicting circulating movements which would not allow northbound movements to occur resulting in severe delay and extensive queuing. Roundabouts were analyzed with the smallest footprint possible that provides acceptable operations. Study intersections were analyzed as a network as well as individual intersections using the SIDRA 9 software.

Table 10 presents the Year 2045 LOS conditions with Alternative 2 improvements. Table 11 presents the Year 2045 Alternative 2 conditions throughput at all study intersections. Table 12 presents the Year 2045 Alternative 2 conditions travel time along the SR 29 corridor.

Table 10 – Year 2045 Alternative 2 Conditions Level of Service

#	Intersection	Control Type[1,2]	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Napa Junction Rd & SR 29	RNDBT	10.9	B	11.6	B
2	Eucalyptus Dr & SR 29	RNDBT	11.1	B	27.8	C
3	Rio Del Mar & SR 29	RNDBT	13.1	B	10.1	B
4	Poco Way/S Napa Junction Rd & SR 29	RNDBT	6.1	A	7.3	A
5	Donaldson Way & SR 29	RNDBT	14.1	B	19.8	B
6	Crawford Way & SR 29	RNDBT	6.4	A	11.7	B

Notes:
1. TWSC = Two Way Stop Control
2. LOS = Delay based on worst minor street approach for TWSC, average of all approaches for Signal

As presented in Table 10, all study intersections are projected to operate at LOS C or better during the AM and PM peak hours. All roundabouts have been preliminarily analyzed as three by one hybrid roundabouts except for the intersection of Crawford Way/SR 29 where a two by one roundabout would satisfy AM and PM peak hours. Three by one implies three circulating lanes for the northbound and southbound movements and one circulating lane for the eastbound and westbound movements. Two by one implies two circulating lanes for the northbound and southbound movements and one circulating lane for the eastbound and westbound movements

Table 11 – Year 2045 Alternative 2 Conditions Vehicle Throughput

#	Intersection	AM Peak Hour		PM Peak Hour	
		No Build	Alt 2	No Build	Alt 2
1	Napa Junction Rd & SR 29	3,560	3,955	4,168	4,394
2	Eucalyptus Dr & SR 29	3,682	4,070	4,009	5,009
3	Rio Del Mar & SR 29	3,805	4,170	4,368	4,809
4	Poco Way/S Napa Junction Rd & SR 29	3,525	3,547	3,798	4,256
5	Donaldson Way & SR 29	3,801	3,870	4,117	4,594
6	Crawford Way & SR 29	2,887	2,921	3,734	4,160

As presented in Table 11, throughput is projected to increase on average by 6% in AM and 12.5% in PM peak hours when compared to Year 2045 No Build conditions.

Table 12 – Year 2045 Alternative 2 Conditions Travel Time (Minutes:Seconds)

Year 2045 Scenario	AM Peak Hour	PM Peak Hour
Northbound		
No Build	12:16	08:21
Alt 2	06:40	05:20
Difference	05:36	03:01
Southbound		
No Build	04:18	07:06
Alt 2	04:21	06:09
Difference	00:03	00:58

As presented in Table 12, travel times are projected to decrease between 14% and 46% except for the southbound AM peak hour volume which is projected to remain relatively flat between Alternative 2 and Year 2045 No Build conditions. Southbound AM peak hour traffic is projected to be close to free-flow travel times through the study area thus resulting in little to no travel time difference. No improvements were identified for the intersection of American Canyon Road/SR 29 under this alternative.

4.4 Alternative 3 – Six Lane Alternative

Alternative 3 identifies the operational performance of additional capacity added to SR 29 in terms of an additional lane for northbound and southbound traffic. The improvements identified under Year 2045 No Build are assumed built for this alternative. Multi-modal improvements for this alternative would consist of one of the following combinations:

- Class I shared use path

OR

- Class IV bikeway, six-foot sidewalk

OR

- Class II bike lanes, six-foot sidewalk

All improvements would be added to both sides of the corridor to maximize comfort an ease of travel for the users.

Table 13 presents the Year 2045 LOS conditions with Alternative 3 improvements. Table 14 presents the Year 2045 Alternative 3 throughputs at all study intersections. Table 15 presents the Year 2045 Alternative 3 conditions travel time along the SR 29 corridor.

Table 13 – Year 2045 Alternative 3 Conditions Level of Service

#	Intersection	Control Type[1,2]	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1	Napa Junction Rd & SR 29	Signal	78.2	E	20.4	C
2	Eucalyptus Dr & SR 29	Signal	22.9	C	52.2	D
3	Rio Del Mar & SR 29	Signal	46.9	D	30.6	C
4	Poco Way/S Napa Junction Rd & SR 29	TWSC	4.2	A	2.2	A
5	Donaldson Way & SR 29	Signal	31.5	C	21.4	C
6	Crawford Way & SR 29	TWSC	3.3	A	3.3	A
7	American Canyon Rd & SR 29	Signal	182.6	F	69.6	E

Notes:
1. TWSC = Two Way Stop Control
2. LOS = Delay based on worst minor street approach for TWSC, average of all approaches for Signal

As presented in Table 13, two of the seven study intersections are projected to operate at LOS E or LOS F in the AM peak hour but only one intersection in the PM peak hour is projected to operate at LOS E.

Table 14 – Year 2045 Alternative 3 Conditions Vehicle Throughput

#	Intersection	AM Peak Hour		PM Peak Hour	
		No Build	Alt 3	No Build	Alt 3
1	Napa Junction Rd & SR 29	3,560	3,859	4,168	4,377
2	Eucalyptus Dr & SR 29	3,682	4,053	4,009	4,180
3	Rio Del Mar & SR 29	3,805	4,079	4,368	4,377
4	Poco Way/S Napa Junction Rd & SR 29	3,525	3,818	3,798	3,925
5	Donaldson Way & SR 29	3,801	4,027	4,117	4,296
6	Crawford Way & SR 29	2,887	3,051	3,734	3,827
7	American Canyon Rd & SR 29	4,240	4,472	5,235	5,396

As presented in Table 14, the throughput is projected to increase on average 7% in the AM peak hour and 3% in PM peak hour when compared to Year 2045 No Build conditions.

Table 15 – Year 2045 Alternative 3 Conditions Travel Time (Minutes:Seconds)

Year 2045 Scenario	AM Peak Hour	PM Peak Hour
Northbound		
No Build	12:16	08:21
Alt 3	04:08	04:26
Time Saved	08:08	03:55
Southbound		
No Build	04:18	07:06
Alt 3	03:46	03:26
Time Saved	00:32	03:41

As presented in Table 15, travel times are projected to decrease between 13% and 66% when comparing Alternative 3 to Year 2045 No Build conditions. Travel times are projected to be at or close to free-flow speeds for the AM and PM peak hours under this alternative. This alternative provides the best travel time results but does not account for any multi-modal improvements.

As previously stated, the Newell Drive Extinction is anticipated to divert a significant amount of traffic away from SR 29 during the PM peak hour, thus creating a significant change in traffic operations for all alternatives.

5. Next Steps for PA&ED

The purpose of the TEPA process is to provide a series of alternatives that aide in the development of a final alternative for the PA&ED phase. The TEPA provides a preliminary and planning level analysis that will be further studied in detail during the PA&ED process. The following should be provided as part of the PA&ED phase:

- Existing Conditions
    - Traffic levels and pandemic effects on current traffic patterns
- Opening and Design Year Conditions
    - Traffic forecasts development utilizing the Napa-Solano Regional TDM
- Intersection Control Evaluation
    - Inclusive of alternative modes of transport
    - SIDRA software for roundabout analysis, VISSIM/Synchro for signalized alternatives
    - Preliminary VMT analysis

The analysis and results will be compiled into a Traffic Operations Analysis Report (TOAR) which will be a supporting document to the PA&ED. The TOAR will identify the preferred alternative. During the PA&ED process, a detailed VMT analysis will be performed while the ICE Step 1 will provide a preliminary VMT analysis.

LANE SUMMARY

Site: 201 [Napa Junction & SR 29 (Site Folder: Year 2045 AM - Alt 2)]

Network: N101 [Yr 2045 AM - Alt 2 (Network Folder: Alternative 2)]

Site Category: Proposed Design 1
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB - SR 29															
Lane 1	647	2.0	647	2.0	986	0.656	100	13.6	LOS B	8.8	223.6	Full	1200	0.0	0.0
Lane 2	647	2.0	647	2.0	986	0.656	100	13.6	LOS B	8.8	223.6	Full	1200	0.0	0.0
Lane 3[d]	807	2.0	807	2.0	1231	0.656	100	11.6	LOS B	8.9	227.3	Full	1200	0.0	0.0
Approach	2100	2.0	2100	2.0		0.656		12.8	LOS B	8.9	227.3				
East: WB - Napa Junction Rd															
Lane 1	90	2.0	90	2.0	298	0.302	100	18.8	LOS B	1.3	32.0	Full	300	0.0	0.0
Lane 2[d]	245	2.0	245	2.0	442	0.555	100	20.7	LOS C	3.3	84.7	Full	300	0.0	0.0
Approach	335	2.0	335	2.0		0.555		20.2	LOS C	3.3	84.7				
North: SB - SR 29															
Lane 1	348	2.0	348	2.0	1254	0.277	100	5.4	LOS A	1.8	45.1	Full	1600	0.0	0.0
Lane 2	348	2.0	348	2.0	1254	0.277	100	5.4	LOS A	1.8	45.1	Full	1600	0.0	0.0
Lane 3[d]	414	2.0	414	2.0	1494	0.277	100	4.7	LOS A	1.8	46.6	Full	1600	0.0	0.0
Approach	1110	2.0	1110	2.0		0.277		5.1	LOS A	1.8	46.6				
West: EB - Napa Junction RD															
Lane 1[d]	325	2.0	325	2.0	855	0.380	100	8.7	LOS A	1.7	42.3	Full	300	0.0	0.0
Lane 2	85	2.0	85	2.0	491	0.173	100	9.7	LOS A	0.5	13.4	Full	300	0.0	0.0
Approach	410	2.0	410	2.0		0.380		8.9	LOS A	1.7	42.3				
Intersection	3955	2.0	3955	2.0		0.656		10.9	LOS B	8.9	227.3				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Network tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: NB - SR 29

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	80	567	-	647	2.0	986	0.656	100	NA	NA

Lane 2	-	647	-	647	2.0	986	0.656	100	NA	NA
Lane 3	-	767	40	807	2.0	1231	0.656	100	NA	NA
Approach	80	1980	40	2100	2.0		0.656			

East: WB - Napa Junction Rd

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	40	50	-	90	2.0	298	0.302	100	NA	NA
Lane 2	-	-	245	245	2.0	442	0.555	100	NA	NA
Approach	40	50	245	335	2.0		0.555			

North: SB - SR 29

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	100	248	-	348	2.0	1254	0.277	100	NA	NA
Lane 2	-	348	-	348	2.0	1254	0.277	100	NA	NA
Lane 3	-	294	120	414	2.0	1494	0.277	100	NA	NA
Approach	100	890	120	1110	2.0		0.277			

West: EB - Napa Junction RD

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	235	90	-	325	2.0	855	0.380	100	NA	NA
Lane 2	-	-	85	85	2.0	491	0.173	100	NA	NA
Approach	235	90	85	410	2.0		0.380			

	Total	%HV	Deg.Satn (v/c)
Intersection	3955	2.0	0.656

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: NB - SR 29 Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
Full Length Lane	3	Merge Analysis not applied.										
East Exit: WB - Napa Junction Rd Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: SB - SR 29 Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
Full Length Lane	3	Merge Analysis not applied.										
West Exit: EB - Napa Junction RD Merge Type: **Not Applied**												

Full Length Lane	1	Merge Analysis not applied.

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LANE SUMMARY

Site: 202 [Eucalyptus Rd & SR 29 (Site Folder: Year 2045 AM - Alt 2)]

Network: N101 [Yr 2045 AM - Alt 2 (Network Folder: Alternative 2)]

Site Category: Proposed Design 1
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB - SR 29															
Lane 1	727	3.0	727	3.0	1065	0.683	100	13.7	LOS B	10.3	263.3	Full	600	0.0	0.0
Lane 2	727	3.0	727	3.0	1065	0.683	100	13.7	LOS B	10.3	263.3	Full	600	0.0	0.0
Lane 3[d]	885	3.0	885	3.0	1296	0.683	100	11.9	LOS B	9.9	253.3	Full	600	0.0	0.0
Approach	2340	3.0	2340	3.0		0.683		13.1	LOS B	10.3	263.3				
East: WB - Eucalyptus															
Lane 1[d]	210	3.0	210	3.0	435	0.483	100	18.2	LOS B	2.7	69.7	Full	1600	0.0	0.0
Lane 2	55	3.0	55	3.0	274	0.201	100	17.5	LOS B	0.8	19.8	Full	1600	0.0	0.0
Approach	265	3.0	265	3.0		0.483		18.1	LOS B	2.7	69.7				
North: SB - SR 29															
Lane 1	363	3.0	363	3.0	1134	0.320	100	6.3	LOS A	2.3	57.9	Full	1200	0.0	0.0
Lane 2	363	3.0	363	3.0	1134	0.320	100	6.3	LOS A	2.3	57.9	Full	1200	0.0	0.0
Lane 3[d]	428	3.0	428	3.0	1337	0.320	100	5.6	LOS A	2.4	60.5	Full	1200	0.0	0.0
Approach	1155	3.0	1155	3.0		0.320		6.0	LOS A	2.4	60.5				
West: EB - Eucaluptus															
Lane 1[d]	270	3.0	270	3.0	735	0.367	100	9.6	LOS A	1.7	42.4	Full	1600	0.0	0.0
Lane 2	40	3.0	40	3.0	415	0.096	100	10.1	LOS B	0.3	7.7	Short	200	0.0	NA
Approach	310	3.0	310	3.0		0.367		9.6	LOS A	1.7	42.4				
Intersection	4070	3.0	4070	3.0		0.683		11.1	LOS B	10.3	263.3				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Network tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: NB - SR 29

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	10	717	-	727	3.0	1065	0.683	100	NA	NA

Lane 2	-	727	-	727	3.0	1065	0.683	100	NA	NA
Lane 3	-	550	335	885	3.0	1296	0.683	100	NA	NA
Approach	10	1995	335	2340	3.0		0.683			

East: WB - Eucalyptus

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	190	20	-	210	3.0	435	0.483	100	NA	NA
Lane 2	-	-	55	55	3.0	274	0.201	100	NA	NA
Approach	190	20	55	265	3.0		0.483			

North: SB - SR 29

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	40	323	-	363	3.0	1134	0.320	100	NA	NA
Lane 2	-	363	-	363	3.0	1134	0.320	100	NA	NA
Lane 3	-	398	30	428	3.0	1337	0.320	100	NA	NA
Approach	40	1085	30	1155	3.0		0.320			

West: EB - Eucaluptus

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	190	80	-	270	3.0	735	0.367	100	NA	NA
Lane 2	-	-	40	40	3.0	415	0.096	100	0.0	1
Approach	190	80	40	310	3.0		0.367			

	Total	%HV	Deg.Satn (v/c)
Intersection	4070	3.0	0.683

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: NB - SR 29 Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
Full Length Lane	3	Merge Analysis not applied.										
East Exit: WB - Eucalyptus Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: SB - SR 29 Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
Full Length Lane	3	Merge Analysis not applied.										
West Exit: EB - Eucaluptus Merge Type: **Not Applied**												

Full Length Lane	1	Merge Analysis not applied.

LANE SUMMARY

Site: 203 [Rio Del Mar & SR 29 (Site Folder: Year 2045 AM - Alt 2)]

Network: N101 [Yr 2045 AM - Alt 2 (Network Folder: Alternative 2)]

Site Category: Proposed Design 1
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB - SR 29															
Lane 1	648	3.0	648	3.0	896	0.723	100	17.4	LOS B	11.6	298.2	Full	600	0.0	0.0
Lane 2	648	3.0	648	3.0	896	0.723	100	17.4	LOS B	11.6	298.2	Full	600	0.0	0.0
Lane 3[d]	799	3.0	799	3.0	1106	0.723	100	14.9	LOS B	12.4	316.8	Full	600	0.0	0.0
Approach	2095	3.0	2095	3.0		0.723		16.4	LOS B	12.4	316.8				
East: WB - Rio Del Mar															
Lane 1[d]	155	3.0	155	3.0	388	0.399	100	17.4	LOS B	2.1	54.1	Full	1600	0.0	0.0
Lane 2	135	3.0	135	3.0	281	0.481	100	26.6	LOS C	2.4	61.5	Full	1600	0.0	0.0
Approach	290	3.0	290	3.0		0.481		21.7	LOS C	2.4	61.5				
North: SB - SR 29															
Lane 1	416	3.0	416	3.0	1181	0.352	100	6.5	LOS A	2.5	64.6	Full	600	0.0	0.0
Lane 2	416	3.0	416	3.0	1181	0.352	100	6.5	LOS A	2.5	64.6	Full	600	0.0	0.0
Lane 3[d]	489	3.0	489	3.0	1389	0.352	100	5.8	LOS A	2.6	67.2	Full	600	0.0	0.0
Approach	1320	3.0	1320	3.0		0.352		6.2	LOS A	2.6	67.2				
West: EB - Rio Del Mar															
Lane 1[d]	385	3.0	385	3.0	728	0.529	100	13.0	LOS B	3.1	78.6	Full	350	0.0	0.0
Lane 2	80	3.0	80	3.0	411	0.195	100	11.9	LOS B	0.6	16.0	Short	200	0.0	NA
Approach	465	3.0	465	3.0		0.529		12.8	LOS B	3.1	78.6				
Intersection	4170	3.0	4170	3.0		0.723		13.1	LOS B	12.4	316.8				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Network tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: NB - SR 29

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	35	613	-	648	3.0	896	0.723	100	NA	NA

Lane 2	-	648	-	648	3.0	896	0.723	100	NA	NA
Lane 3	-	719	80	799	3.0	1106	0.723	100	NA	NA
Approach	35	1980	80	2095	3.0		0.723			

East: WB - Rio Del Mar

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	130	25	-	155	3.0	388	0.399	100	NA	NA
Lane 2	-	-	135	135	3.0	281	0.481	100	NA	NA
Approach	130	25	135	290	3.0		0.481			

North: SB - SR 29

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	85	331	-	416	3.0	1181	0.352	100	NA	NA
Lane 2	-	416	-	416	3.0	1181	0.352	100	NA	NA
Lane 3	-	404	85	489	3.0	1389	0.352	100	NA	NA
Approach	85	1150	85	1320	3.0		0.352			

West: EB - Rio Del Mar

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	355	30	-	385	3.0	728	0.529	100	NA	NA
Lane 2	-	-	80	80	3.0	411	0.195	100	0.0	1
Approach	355	30	80	465	3.0		0.529			

	Total	%HV	Deg.Satn (v/c)
Intersection	4170	3.0	0.723

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: NB - SR 29 Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
Full Length Lane	3	Merge Analysis not applied.										
East Exit: WB - Rio Del Mar Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: SB - SR 29 Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
Full Length Lane	3	Merge Analysis not applied.										
West Exit: EB - Rio Del Mar Merge Type: **Not Applied**												

Full Length Lane	1	Merge Analysis not applied.

LANE SUMMARY

Site: 204 [Poco Way/S Napa Junction Rd & SR 29 (Site Folder: Year 2045 AM - Alt 2)]

Network: N101 [Yr 2045 AM - Alt 2 (Network Folder: Alternative 2)]

Site Category: Proposed Design 1
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB - SR 29															
Lane 1	668	3.0	668	3.0	1443	0.463	100	6.9	LOS A	3.8	98.0	Full	2000	0.0	0.0
Lane 2	668	3.0	668	3.0	1443	0.463	100	6.9	LOS A	3.8	98.0	Full	2000	0.0	0.0
Lane 3[d]	784	3.0	784	3.0	1694	0.463	100	6.3	LOS A	3.8	98.4	Short	200	0.0	NA
Approach	2120	3.0	2120	3.0		0.463		6.7	LOS A	3.8	98.4				
East: WB - S Napa Junction Rd															
Lane 1	6	3.0	6	3.0	460	0.013	100	8.0	LOS A	0.0	1.1	Full	400	0.0	0.0
Lane 2[d]	15	3.0	15	3.0	676	0.022	100	5.6	LOS A	0.1	2.0	Full	400	0.0	0.0
Approach	21	3.0	21	3.0		0.022		6.3	LOS A	0.1	2.0				
North: SB - SR 29															
Lane 1	405	3.0	405	3.0	1336	0.303	100	5.4	LOS A	1.9	48.8	Full	600	0.0	0.0
Lane 2	405	3.0	405	3.0	1336	0.303	100	5.4	LOS A	1.9	48.8	Full	600	0.0	0.0
Lane 3[d]	471	3.0	471	3.0	1554	0.303	100	4.8	LOS A	1.9	49.4	Full	600	0.0	0.0
Approach	1280	3.0	1280	3.0		0.303		5.2	LOS A	1.9	49.4				
West: EB - Poco Way															
Lane 1	21	3.0	21	3.0	458	0.046	100	8.5	LOS A	0.1	3.3	Full	540	0.0	0.0
Lane 2[d]	105	3.0	105	3.0	816	0.129	100	5.7	LOS A	0.4	10.7	Full	540	0.0	0.0
Approach	126	3.0	126	3.0		0.129		6.2	LOS A	0.4	10.7				
Intersection	3547	3.0	3547	3.0		0.463		6.1	LOS A	3.8	98.4				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Network tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: NB - SR 29

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	90	578	-	668	3.0	1443	0.463	100	NA	NA

Lane 2	-	668	-	668	3.0	1443	0.463	100	NA	NA
Lane 3	-	774	10	784	3.0	1694	0.463	100	0.0	2
Approach	90	2020	10	2120	3.0		0.463			

East: WB - S Napa Junction Rd

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	5	1	-	6	3.0	460	0.013	100	NA	NA
Lane 2	-	-	15	15	3.0	676	0.022	100	NA	NA
Approach	5	1	15	21	3.0		0.022			

North: SB - SR 29

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	15	390	-	405	3.0	1336	0.303	100	NA	NA
Lane 2	-	405	-	405	3.0	1336	0.303	100	NA	NA
Lane 3	-	456	15	471	3.0	1554	0.303	100	NA	NA
Approach	15	1250	15	1280	3.0		0.303			

West: EB - Poco Way

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	20	1	-	21	3.0	458	0.046	100	NA	NA
Lane 2	-	-	105	105	3.0	816	0.129	100	NA	NA
Approach	20	1	105	126	3.0		0.129			

	Total	%HV	Deg.Satn (v/c)
Intersection	3547	3.0	0.463

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: NB - SR 29 Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
Full Length Lane	3	Merge Analysis not applied.										
East Exit: WB - S Napa Junction Rd Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: SB - SR 29 Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
Full Length Lane	3	Merge Analysis not applied.										
West Exit: EB - Poco Way Merge Type: **Not Applied**												

Full Length Lane	1	Merge Analysis not applied.

LANE SUMMARY

Site: 205 [Donaldson Way & SR 29 (Site Folder: Year 2045 AM - Alt 2)] **Network: N101 [Yr 2045 AM - Alt 2 (Network Folder: Alternative 2)]**

Site Category: Proposed Design 1
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB - SR 29															
Lane 1	696	3.0	696	3.0	926	0.752	100	18.4	LOS B	13.3	340.3	Full	850	0.0	0.0
Lane 2[d]	864	3.0	864	3.0	1150	0.752	100	15.7	LOS B	14.1	362.2	Full	850	0.0	0.0
Approach	1560	3.0	1560	3.0		0.752		16.9	LOS B	14.1	362.2				
East: WB - Donaldson Way															
Lane 1	220	3.0	220	3.0	381	0.577	100	24.5	LOS C	3.8	97.5	Full	360	0.0	0.0
Lane 2[d]	315	3.0	315	3.0	536	0.588	100	18.8	LOS B	4.5	116.5	Full	360	0.0	0.0
Approach	535	3.0	535	3.0		0.588		21.1	LOS C	4.5	116.5				
North: SB - SR 29															
Lane 1	542	3.0	542	3.0	1107	0.490	100	8.8	LOS A	4.0	101.9	Full	2000	0.0	0.0
Lane 2[d]	652	3.0	652	3.0	1330	0.490	100	7.7	LOS A	4.2	107.2	Full	2000	0.0	0.0
Lane 3	246	3.0	246	3.0	957	0.257	52[6]	10.8	LOS B	1.6	41.7	Full	2000	0.0	0.0
Approach	1440	3.0	1440	3.0		0.490		8.7	LOS A	4.2	107.2				
West: EB - Donaldson Way															
Lane 1[d]	290	3.0	290	3.0	620	0.468	100	13.2	LOS B	2.6	65.4	Full	775	0.0	0.0
Lane 2	45	3.0	45	3.0	348	0.129	100	17.9	LOS B	0.4	11.1	Full	775	0.0	0.0
Approach	335	3.0	335	3.0		0.468		13.8	LOS B	2.6	65.4				
Intersection	3870	3.0	3870	3.0		0.752		14.1	LOS B	14.1	362.2				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Network tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

6 Lane under-utilisation due to downstream effects
d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: NB - SR 29

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	35	661	-	696	3.0	926	0.752	100	NA	NA

Lane 2	-	804	60	864	3.0	1150	0.752	100	NA	NA
Approach	35	1465	60	1560	3.0		0.752			

East: WB - Donaldson Way

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	80	140	-	220	3.0	381	0.577	100	NA	NA
Lane 2	-	-	315	315	3.0	536	0.588	100	NA	NA
Approach	80	140	315	535	3.0		0.588			

North: SB - SR 29

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	165	377	-	542	3.0	1107	0.490	100	NA	NA
Lane 2	-	652	-	652	3.0	1330	0.490	100	NA	NA
Lane 3	-	206	40	246	3.0	957	0.257	52[6]	NA	NA
Approach	165	1235	40	1440	3.0		0.490			

West: EB - Donaldson Way

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	100	190	-	290	3.0	620	0.468	100	NA	NA
Lane 2	-	-	45	45	3.0	348	0.129	100	NA	NA
Approach	100	190	45	335	3.0		0.468			

	Total	%HV	Deg.Satn (v/c)
Intersection	3870	3.0	0.752

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

6 Lane under-utilisation due to downstream effects

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: NB - SR 29 Merge Type: **Priority**												
Exit Short Lane	3	200	0.0	652	671	3.00	2.00	251	1105	0.227	3.3	5.3
Merge Lane	2	-	100.0	Merge Lane is not Opposed				652	1800	0.362	0.0	0.0
East Exit: WB - Donaldson Way Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: SB - SR 29 Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
West Exit: EB - Donaldson Way Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										

LANE SUMMARY

Site: 206 [Crawford Way & SR 29 (Site Folder: Year 2045 AM - Alt 2)]

Network: N101 [Yr 2045 AM - Alt 2 (Network Folder: Alternative 2)]

Site Category: Proposed Design 1
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB - SR 29															
Lane 1	751	3.0	751	3.0	1488	0.504	100	7.4	LOS A	4.8	123.3	Full	1000	0.0	0.0
Lane 2[d]	905	3.0	905	3.0	1795	0.504	100	6.6	LOS A	4.9	124.3	Full	1000	0.0	0.0
Approach	1656	3.0	1656	3.0		0.504		6.9	LOS A	4.9	124.3				
East: WB - Driveway															
Lane 1[d]	3	3.0	3	3.0	513	0.006	100	7.2	LOS A	0.0	0.6	Full	100	0.0	0.0
Approach	3	3.0	3	3.0		0.006		7.2	LOS A	0.0	0.6				
North: SB - SR 29															
Lane 1	540	3.0	540	3.0	1392	0.388	100	6.2	LOS A	2.7	69.9	Full	850	0.0	0.0
Lane 2[d]	636	3.0	636	3.0	1639	0.388	100	5.5	LOS A	2.7	70.3	Full	850	0.0	0.0
Approach	1176	3.0	1176	3.0		0.388		5.8	LOS A	2.7	70.3				
West: EB - Crawford Way															
Lane 1	26	3.0	26	3.0	610	0.043	100	6.4	LOS A	0.2	4.0	Full	700	0.0	0.0
Lane 2[d]	60	3.0	60	3.0	856	0.070	100	4.9	LOS A	0.3	7.1	Short	200	0.0	NA
Approach	86	3.0	86	3.0		0.070		5.3	LOS A	0.3	7.1				
Intersection	2921	3.0	2921	3.0		0.504		6.4	LOS A	4.9	124.3				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Network tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: NB - SR 29

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	65	686	-	751	3.0	1488	0.504	100	NA	NA
Lane 2	-	904	1	905	3.0	1795	0.504	100	NA	NA
Approach	65	1590	1	1656	3.0		0.504			

East: WB - Driveway

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	1	1	3	3.0	513	0.006	100	NA	NA
Approach	1	1	1	3	3.0		0.006			

North: SB - SR 29

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	539	-	540	3.0	1392	0.388	100	NA	NA
Lane 2	-	491	145	636	3.0	1639	0.388	100	NA	NA
Approach	1	1030	145	1176	3.0		0.388			

West: EB - Crawford Way

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	25	1	-	26	3.0	610	0.043	100	NA	NA
Lane 2	-	-	60	60	3.0	856	0.070	100	0.0	1
Approach	25	1	60	86	3.0		0.070			

	Total	%HV	Deg.Satn (v/c)
Intersection	2921	3.0	0.504

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: NB - SR 29 Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
East Exit: WB - Driveway Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: SB - SR 29 Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
West Exit: EB - Crawford Way Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										

LANE SUMMARY

Site: 201 [Napa Junction & SR 29 (Site Folder: Year 2045 PM - Alt 2)]

Network: N101 [Yr 2045 PM - Alt 2 (Network Folder: Alternative 2)]

Site Category: Proposed Design 1
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB - SR 29															
Lane 1	384	2.0	384	2.0	1105	0.348	100	6.7	LOS A	2.4	59.7	Full	1200	0.0	0.0
Lane 2	384	2.0	384	2.0	1105	0.348	100	6.7	LOS A	2.4	59.7	Full	1200	0.0	0.0
Lane 3[d]	466	2.0	466	2.0	1339	0.348	100	5.9	LOS A	2.5	62.7	Full	1200	0.0	0.0
Approach	1235	2.0	1235	2.0		0.348		6.4	LOS A	2.5	62.7				
East: WB - Napa Junction Rd															
Lane 1[d]	160	2.0	160	2.0	747	0.214	100	7.2	LOS A	0.8	20.3	Full	300	0.0	0.0
Lane 2	65	2.0	65	2.0	526	0.124	100	8.4	LOS A	0.4	10.3	Full	300	0.0	0.0
Approach	225	2.0	225	2.0		0.214		7.6	LOS A	0.8	20.3				
North: SB - SR 29															
Lane 1	865	2.0	865	2.0	1175	0.736	100	14.8	LOS B	13.3	338.0	Full	1600	0.0	0.0
Lane 2	865	2.0	865	2.0	1175	0.736	100	14.8	LOS B	13.3	338.0	Full	1600	0.0	0.0
Lane 3[d]	1055	2.0	1055	2.0	1433	0.736	100	12.8	LOS B	11.9	301.2	Full	1600	-0.2[N3]	0.0
Approach	2784	2.0	2784	2.0		0.736		14.0	LOS B	13.3	338.0				
West: EB - Napa Junction RD															
Lane 1[d]	110	2.0	110	2.0	411	0.268	100	13.3	LOS B	1.3	31.8	Full	300	0.0	0.0
Lane 2	40	2.0	40	2.0	277	0.144	100	15.9	LOS B	0.6	14.5	Full	300	-0.4[N3]	0.0
Approach	150	2.0	150	2.0		0.268		14.0	LOS B	1.3	31.8				
Intersection	4394	2.0	4394	2.0		0.736		11.6	LOS B	13.3	338.0				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Network tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach
N3 Capacity Adjustment due to downstream lane blockage determined by the program.

Approach Lane Flows (veh/h)

South: NB - SR 29

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.

Lane 1	95	289	-	384	2.0	1105	0.348	100	NA	NA
Lane 2	-	384	-	384	2.0	1105	0.348	100	NA	NA
Lane 3	-	436	30	466	2.0	1339	0.348	100	NA	NA
Approach	95	1110	30	1235	2.0		0.348			

East: WB - Napa Junction Rd

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	105	55	-	160	2.0	747	0.214	100	NA	NA
Lane 2	-	-	65	65	2.0	526	0.124	100	NA	NA
Approach	105	55	65	225	2.0		0.214			

North: SB - SR 29

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	185	680	-	865	2.0	1175	0.736	100	NA	NA
Lane 2	-	865	-	865	2.0	1175	0.736	100	NA	NA
Lane 3	-	550	505	1055	2.0	1433	0.736	100	NA	NA
Approach	185	2094	505	2784	2.0		0.736			

West: EB - Napa Junction RD

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	65	45	-	110	2.0	411	0.268	100	NA	NA
Lane 2	-	-	40	40	2.0	277	0.144	100	NA	NA
Approach	65	45	40	150	2.0		0.268			

	Total	%HV	Deg.Satn (v/c)
Intersection	4394	2.0	0.736

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: NB - SR 29 Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
Full Length Lane	3	Merge Analysis not applied.										
East Exit: WB - Napa Junction Rd Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: SB - SR 29 Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
Full Length Lane	3	Merge Analysis not applied.										
West Exit: EB - Napa Junction RD												

Merge Type: **Not Applied**		
Full Length Lane	1	Merge Analysis not applied.

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LANE SUMMARY

Site: 202 [Eucalyptus Rd & SR 29 (Site Folder: Year 2045 PM - Alt 2)] **Network: N101 [Yr 2045 PM - Alt 2 (Network Folder: Alternative 2)]**

Site Category: Proposed Design 1
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB - SR 29															
Lane 1	538	3.0	538	3.0	1300	0.414	100	6.8	LOS A	3.2	82.7	Full	600	0.0	0.0
Lane 2	538	3.0	538	3.0	1300	0.414	100	6.8	LOS A	3.2	82.7	Full	600	0.0	0.0
Lane 3[d]	639	3.0	639	3.0	1544	0.414	100	6.0	LOS A	3.3	85.4	Full	600	0.0	0.0
Approach	1715	3.0	1715	3.0		0.414		6.5	LOS A	3.3	85.4				
East: WB - Eucalyptus															
Lane 1[d]	475	3.0	475	3.0	742	0.640	100	16.3	LOS B	4.6	117.5	Full	1600	0.0	0.0
Lane 2	55	3.0	55	3.0	421	0.131	100	10.5	LOS B	0.4	10.6	Full	1600	0.0	0.0
Approach	530	3.0	530	3.0		0.640		15.7	LOS B	4.6	117.5				
North: SB - SR 29															
Lane 1	821	3.0	821	3.0	847	0.970	100	45.9	LOS D	35.0	896.4	Full	1200	0.0	0.0
Lane 2	821	3.0	821	3.0	847	0.970	100	45.9	LOS D	35.0	896.4	Full	1200	0.0	0.0
Lane 3[d]	1022	3.0	1022	3.0	1053	0.970	100	40.7	LOS D	39.8	1020.1	Full	1200	0.0	0.4
Approach	2664	3.0	2664	3.0		0.970		43.9	LOS D	39.8	1020.1				
West: EB - Eucaluptus															
Lane 1[d]	80	3.0	80	3.0	230	0.347	100	25.5	LOS C	1.9	48.5	Full	1600	0.0	0.0
Lane 2	20	3.0	20	3.0	180	0.111	100	23.2	LOS C	0.5	13.0	Short	200	0.0	NA
Approach	100	3.0	100	3.0		0.347		25.1	LOS C	1.9	48.5				
Intersection	5009	3.0	5009	3.0		0.970		27.8	LOS C	39.8	1020.1				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Network tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: NB - SR 29

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	30	508	-	538	3.0	1300	0.414	100	NA	NA

Lane 2	-	538	-	538	3.0	1300	0.414	100	NA	NA
Lane 3	-	204	435	639	3.0	1544	0.414	100	NA	NA
Approach	30	1250	435	1715	3.0		0.414			

East: WB - Eucalyptus

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	445	30	-	475	3.0	742	0.640	100	NA	NA
Lane 2	-	-	55	55	3.0	421	0.131	100	NA	NA
Approach	445	30	55	530	3.0		0.640			

North: SB - SR 29

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	40	781	-	821	3.0	847	0.970	100	NA	NA
Lane 2	-	821	-	821	3.0	847	0.970	100	NA	NA
Lane 3	-	962	60	1022	3.0	1053	0.970	100	NA	NA
Approach	40	2564	60	2664	3.0		0.970			

West: EB - Eucaluptus

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	50	30	-	80	3.0	230	0.347	100	NA	NA
Lane 2	-	-	20	20	3.0	180	0.111	100	0.0	1
Approach	50	30	20	100	3.0		0.347			

	Total	%HV	Deg.Satn (v/c)
Intersection	5009	3.0	0.970

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: NB - SR 29 Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
Full Length Lane	3	Merge Analysis not applied.										
East Exit: WB - Eucalyptus Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: SB - SR 29 Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
Full Length Lane	3	Merge Analysis not applied.										
West Exit: EB - Eucaluptus Merge Type: **Not Applied**												

Full Length Lane	1	Merge Analysis not applied.

LANE SUMMARY

Site: 203 [Rio Del Mar & SR 29 (Site Folder: Year 2045 PM - Alt 2)]

Network: N101 [Yr 2045 PM - Alt 2 (Network Folder: Alternative 2)]

Site Category: Proposed Design 1
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB - SR 29															
Lane 1	540	3.0	540	3.0	1124	0.481	100	8.5	LOS A	3.6	92.6	Full	600	0.0	0.0
Lane 2	540	3.0	540	3.0	1124	0.481	100	8.5	LOS A	3.6	92.6	Full	600	0.0	0.0
Lane 3[d]	680	3.0	680	3.0	1416	0.481	100	7.3	LOS A	3.8	98.2	Full	600	0.0	0.0
Approach	1760	3.0	1760	3.0		0.481		8.0	LOS A	3.8	98.2				
East: WB - Rio Del Mar															
Lane 1	140	3.0	140	3.0	480	0.292	100	12.1	LOS B	1.2	30.2	Full	1600	0.0	0.0
Lane 2[d]	140	3.0	140	3.0	564	0.248	100	9.8	LOS A	1.0	25.6	Full	1600	0.0	0.0
Approach	280	3.0	280	3.0		0.292		10.9	LOS B	1.2	30.2				
North: SB - SR 29															
Lane 1	800	3.0	800	3.0	1226	0.652	100	11.5	LOS B	6.5	166.1	Full	600	0.0	0.0
Lane 2	800	3.0	800	3.0	1226	0.652	100	11.5	LOS B	6.5	166.1	Full	600	0.0	0.0
Lane 3[d]	990	3.0	990	3.0	1517	0.652	100	10.0	LOS A	6.6	169.0	Full	600	0.0	0.0
Approach	2589	3.0	2589	3.0		0.652		10.9	LOS B	6.6	169.0				
West: EB - Rio Del Mar															
Lane 1[d]	125	3.0	125	3.0	395	0.316	100	14.9	LOS B	1.5	38.0	Full	350	0.0	0.0
Lane 2	55	3.0	55	3.0	267	0.206	100	18.1	LOS B	0.8	20.4	Short	200	0.0	NA
Approach	180	3.0	180	3.0		0.316		15.9	LOS B	1.5	38.0				
Intersection	4809	3.0	4809	3.0		0.652		10.1	LOS B	6.6	169.0				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Network tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: NB - SR 29

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	75	465	-	540	3.0	1124	0.481	100	NA	NA

Lane 2	-	540	-	540	3.0	1124	0.481	100	NA	NA
Lane 3	-	510	170	680	3.0	1416	0.481	100	NA	NA
Approach	75	1515	170	1760	3.0		0.481			

East: WB - Rio Del Mar

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	130	10	-	140	3.0	480	0.292	100	NA	NA
Lane 2	-	-	140	140	3.0	564	0.248	100	NA	NA
Approach	130	10	140	280	3.0		0.292			

North: SB - SR 29

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	190	610	-	800	3.0	1226	0.652	100	NA	NA
Lane 2	-	800	-	800	3.0	1226	0.652	100	NA	NA
Lane 3	-	945	45	990	3.0	1517	0.652	100	NA	NA
Approach	190	2354	45	2589	3.0		0.652			

West: EB - Rio Del Mar

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	115	10	-	125	3.0	395	0.316	100	NA	NA
Lane 2	-	-	55	55	3.0	267	0.206	100	0.0	1
Approach	115	10	55	180	3.0		0.316			

	Total	%HV	Deg.Satn (v/c)
Intersection	4809	3.0	0.652

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: NB - SR 29 Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
Full Length Lane	3	Merge Analysis not applied.										
East Exit: WB - Rio Del Mar Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: SB - SR 29 Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
Full Length Lane	3	Merge Analysis not applied.										
West Exit: EB - Rio Del Mar Merge Type: **Not Applied**												

Full Length Lane	1	Merge Analysis not applied.

LANE SUMMARY

Site: 204 [Poco Way/S Napa Junction Rd & SR 29 (Site Folder: Year 2045 PM - Alt 2)] **Network: N101 [Yr 2045 PM - Alt 2 (Network Folder: Alternative 2)]**

Site Category: Proposed Design 1
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB - SR 29															
Lane 1	518	3.0	518	3.0	1484	0.349	100	5.5	LOS A	2.5	62.8	Full	2000	0.0	0.0
Lane 2	518	3.0	518	3.0	1484	0.349	100	5.5	LOS A	2.5	62.8	Full	2000	0.0	0.0
Lane 3[d]	610	3.0	610	3.0	1748	0.349	100	4.9	LOS A	2.5	63.1	Short	200	0.0	NA
Approach	1645	3.0	1645	3.0		0.349		5.3	LOS A	2.5	63.1				
East: WB - S Napa Junction Rd															
Lane 1	6	3.0	6	3.0	610	0.010	100	6.0	LOS A	0.0	0.7	Full	400	0.0	0.0
Lane 2[d]	10	3.0	10	3.0	797	0.013	100	4.6	LOS A	0.0	1.0	Full	400	0.0	0.0
Approach	16	3.0	16	3.0		0.013		5.2	LOS A	0.0	1.0				
North: SB - SR 29															
Lane 1	806	3.0	806	3.0	1397	0.577	100	8.9	LOS A	5.2	133.4	Full	600	0.0	0.0
Lane 2	806	3.0	806	3.0	1397	0.577	100	8.9	LOS A	5.2	133.4	Full	600	0.0	0.0
Lane 3[d]	947	3.0	947	3.0	1641	0.577	100	8.0	LOS A	5.2	132.1	Full	600	0.0	0.0
Approach	2559	3.0	2559	3.0		0.577		8.6	LOS A	5.2	133.4				
West: EB - Poco Way															
Lane 1	6	3.0	6	3.0	374	0.016	100	9.9	LOS A	0.1	1.4	Full	540	0.0	0.0
Lane 2[d]	30	3.0	30	3.0	560	0.054	100	7.1	LOS A	0.2	5.5	Full	540	0.0	0.0
Approach	36	3.0	36	3.0		0.054		7.6	LOS A	0.2	5.5				
Intersection	4256	3.0	4256	3.0		0.577		7.3	LOS A	5.2	133.4				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Network tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: NB - SR 29

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	60	458	-	518	3.0	1484	0.349	100	NA	NA

Lane 2	-	518	-	518	3.0	1484	0.349	100	NA	NA
Lane 3	-	605	5	610	3.0	1748	0.349	100	0.0	2
Approach	60	1580	5	1645	3.0		0.349			

East: WB - S Napa Junction Rd

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	5	1	-	6	3.0	610	0.010	100	NA	NA
Lane 2	-	-	10	10	3.0	797	0.013	100	NA	NA
Approach	5	1	10	16	3.0		0.013			

North: SB - SR 29

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	10	796	-	806	3.0	1397	0.577	100	NA	NA
Lane 2	-	806	-	806	3.0	1397	0.577	100	NA	NA
Lane 3	-	922	25	947	3.0	1641	0.577	100	NA	NA
Approach	10	2524	25	2559	3.0		0.577			

West: EB - Poco Way

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	5	1	-	6	3.0	374	0.016	100	NA	NA
Lane 2	-	-	30	30	3.0	560	0.054	100	NA	NA
Approach	5	1	30	36	3.0		0.054			

	Total	%HV	Deg.Satn (v/c)
Intersection	4256	3.0	0.577

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: NB - SR 29 Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
Full Length Lane	3	Merge Analysis not applied.										
East Exit: WB - S Napa Junction Rd Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: SB - SR 29 Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
Full Length Lane	3	Merge Analysis not applied.										
West Exit: EB - Poco Way Merge Type: **Not Applied**												

Full Length Lane	1	Merge Analysis not applied.

LANE SUMMARY

Site: 205 [Donaldson Way & SR 29 (Site Folder: Year 2045 PM - Alt 2)] **Network: N101 [Yr 2045 PM - Alt 2 (Network Folder: Alternative 2)]**

Site Category: Proposed Design 1
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB - SR 29															
Lane 1	639	3.0	639	3.0	1076	0.594	100	11.1	LOS B	6.4	163.0	Full	850	0.0	0.0
Lane 2[d]	806	3.0	806	3.0	1359	0.594	100	9.4	LOS A	5.7	145.6	Full	850	0.0	0.0
Approach	1445	3.0	1445	3.0		0.594		10.1	LOS B	6.4	163.0				
East: WB - Donaldson Way															
Lane 1[d]	205	3.0	205	3.0	591	0.347	100	11.0	LOS B	1.9	47.6	Full	360	0.0	0.0
Lane 2	150	3.0	150	3.0	454	0.331	100	13.5	LOS B	1.6	41.3	Full	360	0.0	0.0
Approach	355	3.0	355	3.0		0.347		12.1	LOS B	1.9	47.6				
North: SB - SR 29															
Lane 1	955	3.0	955	3.0	1139	0.839	100	21.2	LOS C	24.2	620.6	Full	2000	0.0	0.0
Lane 2[d]	1187	3.0	1187	3.0	1415	0.839	100	18.2	LOS B	24.2	619.3	Full	2000	0.0	0.0
Lane 3	447	3.0	447	3.0	1029	0.434	52[6]	45.7	LOS D	3.2	81.3	Full	2000	0.0	0.0
Approach	2589	3.0	2589	3.0		0.839		24.0	LOS C	24.2	620.6				
West: EB - Donaldson Way															
Lane 1[d]	150	3.0	150	3.0	249	0.603	100	37.4	LOS D	3.6	93.3	Full	775	0.0	0.0
Lane 2	55	3.0	55	3.0	164	0.335	100	75.9	LOS E	1.4	37.0	Full	775	0.0	0.0
Approach	205	3.0	205	3.0		0.603		47.7	LOS D	3.6	93.3				
Intersection	4594	3.0	4594	3.0		0.839		19.8	LOS B	24.2	620.6				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Network tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

6 Lane under-utilisation due to downstream effects
d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: NB - SR 29

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	65	574	-	639	3.0	1076	0.594	100	NA	NA

Lane 2	-	706	100	806	3.0	1359	0.594	100	NA	NA
Approach	65	1280	100	1445	3.0		0.594			

East: WB - Donaldson Way

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	95	110	-	205	3.0	591	0.347	100	NA	NA
Lane 2	-	-	150	150	3.0	454	0.331	100	NA	NA
Approach	95	110	150	355	3.0		0.347			

North: SB - SR 29

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	190	765	-	955	3.0	1139	0.839	100	NA	NA
Lane 2	-	1187	-	1187	3.0	1415	0.839	100	NA	NA
Lane 3	-	402	45	447	3.0	1029	0.434	52[6]	NA	NA
Approach	190	2354	45	2589	3.0		0.839			

West: EB - Donaldson Way

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	60	90	-	150	3.0	249	0.603	100	NA	NA
Lane 2	-	-	55	55	3.0	164	0.335	100	NA	NA
Approach	60	90	55	205	3.0		0.603			

	Total	%HV	Deg.Satn (v/c)
Intersection	4594	3.0	0.839

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

6 Lane under-utilisation due to downstream effects

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Opposing Flow Rate pcu/h	Critical Gap sec	Follow-up Headway sec	Lane Flow Rate veh/h	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: NB - SR 29 Merge Type: **Priority**												
Exit Short Lane	3	200	0.0	1187	1222	3.00	2.00	457	525	0.870	6.9	41.5
Merge Lane	2	-	100.0	Merge Lane is not Opposed				1187	1800	0.659	0.0	0.0
East Exit: WB - Donaldson Way Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
North Exit: SB - SR 29 Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										
Full Length Lane	2	Merge Analysis not applied.										
West Exit: EB - Donaldson Way Merge Type: **Not Applied**												
Full Length Lane	1	Merge Analysis not applied.										

LANE SUMMARY

Site: 206 [Crawford Way & SR 29 (Site Folder: Year 2045 PM - Alt 2)]

Network: N101 [Yr 2045 PM - Alt 2 (Network Folder: Alternative 2)]

Site Category: Proposed Design 1
Roundabout

Lane Use and Performance

	DEMAND FLOWS [Total veh/h	HV] %	ARRIVAL FLOWS [Total veh/h	HV] %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh	Dist] ft	Lane Config	Lane Length ft	Cap. Adj. %	Prob. Block. %
South: NB - SR 29															
Lane 1	692	3.0	692	3.0	1438	0.482	100	7.2	LOS A	4.7	120.1	Full	1000	0.0	0.0
Lane 2[d]	829	3.0	829	3.0	1720	0.482	100	6.4	LOS A	4.8	123.3	Full	1000	0.0	0.0
Approach	1521	3.0	1521	3.0		0.482		6.8	LOS A	4.8	123.3				
East: WB - Driveway															
Lane 1[d]	3	3.0	3	3.0	524	0.006	100	7.0	LOS A	0.0	0.6	Full	100	0.0	0.0
Approach	3	3.0	3	3.0		0.006		7.0	LOS A	0.0	0.6				
North: SB - SR 29															
Lane 1	1123	3.0	1123	3.0	1414	0.795	100	15.5	LOS B	12.4	316.6	Full	850	0.0	0.0
Lane 2[d]	1352	3.0	1352	3.0	1701	0.795	100	13.7	LOS B	13.0	333.4	Full	850	0.0	0.0
Approach	2475	3.0	2475	3.0		0.795		14.5	LOS B	13.0	333.4				
West: EB - Crawford Way															
Lane 1	41	3.0	41	3.0	262	0.156	100	17.1	LOS B	0.8	19.3	Full	700	0.0	0.0
Lane 2[d]	120	3.0	120	3.0	378	0.317	100	15.6	LOS B	1.8	47.1	Short	200	0.0	NA
Approach	161	3.0	161	3.0		0.317		16.0	LOS B	1.8	47.1				
Intersection	4160	3.0	4160	3.0		0.795		11.7	LOS B	13.0	333.4				

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Network Data dialog (Network tab).
Roundabout LOS Method: Same as Signalised Intersections.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

d Dominant lane on roundabout approach

Approach Lane Flows (veh/h)

South: NB - SR 29

Mov. From S To Exit:	L2 W	T1 N	R2 E	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	65	627	-	692	3.0	1438	0.482	100	NA	NA
Lane 2	-	828	1	829	3.0	1720	0.482	100	NA	NA
Approach	65	1455	1	1521	3.0		0.482			

East: WB - Driveway

Mov. From E To Exit:	L2 S	T1 W	R2 N	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	1	1	3	3.0	524	0.006	100	NA	NA
Approach	1	1	1	3	3.0		0.006			

North: SB - SR 29

Mov. From N To Exit:	L2 E	T1 S	R2 W	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	1	1122	-	1123	3.0	1414	0.795	100	NA	NA
Lane 2	-	1272	80	1352	3.0	1701	0.795	100	NA	NA
Approach	1	2394	80	2475	3.0		0.795			

West: EB - Crawford Way

Mov. From W To Exit:	L2 N	T1 E	R2 S	Total	%HV	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Prob. SL Ov. %	Ov. Lane No.
Lane 1	40	1	-	41	3.0	262	0.156	100	NA	NA
Lane 2	-	-	120	120	3.0	378	0.317	100	0.0	1
Approach	40	1	120	161	3.0		0.317			

	Total	%HV	Deg.Satn (v/c)
Intersection	4160	3.0	0.795

Lane flow rates given in this report are based on the arrival flow rates subject to upstream capacity constraint where applicable.

Merge Analysis

	Exit Lane Number	Short Lane Length ft	Percent Opng in Lane %	Opposing Flow Rate veh/h	Critical Gap pcu/h	Follow-up Headway sec	Lane Flow Rate sec	Capacity veh/h	Deg. Satn v/c	Min. Delay sec	Merge Delay sec
South Exit: NB - SR 29 Merge Type: **Not Applied**											
Full Length Lane	1	Merge Analysis not applied.									
Full Length Lane	2	Merge Analysis not applied.									
East Exit: WB - Driveway Merge Type: **Not Applied**											
Full Length Lane	1	Merge Analysis not applied.									
North Exit: SB - SR 29 Merge Type: **Not Applied**											
Full Length Lane	1	Merge Analysis not applied.									
Full Length Lane	2	Merge Analysis not applied.									
West Exit: EB - Crawford Way Merge Type: **Not Applied**											
Full Length Lane	1	Merge Analysis not applied.									

ATTACHMENT C

Intersection Control Evaluation (Step I) Title Sheet

Intersection Control Evaluation (Step I)

SR 29 in American Canyon Improvements Project

Napa Valley Transportation Authority

ATTACHMENT D

Design Alternatives Exhibits

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

PRELIMINARY, NOT FOR CONSTRUCTION

DATE

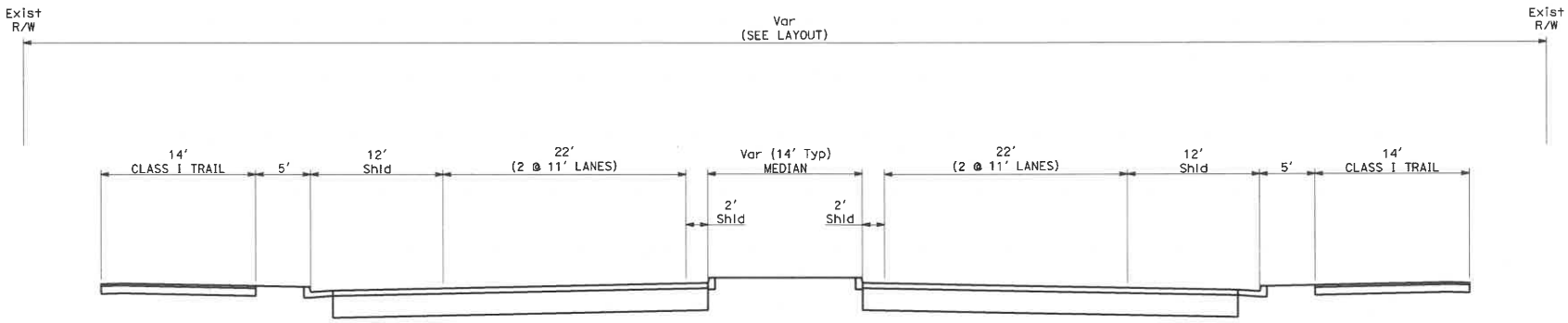
PLANS APPROVAL DATE

REGISTERED PROFESSIONAL ENGINEER No. Exp. CIVIL STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

GHD Inc.
943 RESERVE DRIVE
ROSEVILLE, CA 95678

NVTA
625 BURNELL STREET
NAPA, CA 94559



ROUTE 29

TYPICAL SECTIONS
NO SCALE

ALTERNATIVE 1

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: RONALD G. BOYLE

CALCULATED-DESIGNED BY: MICHAEL PITCOCK | CHECKED BY: LINDSEY VAN PARYS

REVISED BY | DATE REVISED

BORDER LAST REVISED 7/2/2010

USERNAME => mpitcock
DGN FILE => ALTERNATIVE1- 4 LANES.DWG

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0317000163

LAST REVISION | DATE PLOTTED => 8-11-2022
00-00-00 | TIME PLOTTED => 15:11

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

PRELIMINARY; NOT FOR CONSTRUCTION

PLANS APPROVAL DATE

DATE

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

GHD Inc.
943 RESERVE DRIVE
ROSEVILLE, CA 95678

NVTA
625 BURNELL STREET
NAPA, CA 94559



LAYOUT
SCALE: 1" = 50'

ALTERNATIVE 1

L-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	CHECKED BY	REVISED BY	DATE REVISED
Caltrans	RONALD G. BOYLE	MICHAEL PITCOCK	LINDSEY VAN PARYS		

LAST REVISION DATE PLOTTED => 8-11-2022
00-00-00 TIME PLOTTED => 15:11

BORDER LAST REVISED 7/2/2010 | USERNAME => mpitcock | DGN FILE => ALTERNATIVE1- 4 LANES.DWG | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0317000163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

PRELIMINARY - NOT FOR CONSTRUCTION

PLANS APPROVAL DATE

DATE

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LAYOUT
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ALTERNATIVE 1

L-2

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Caltrans	RONALD G. BOYLE	CHECKED BY	DATE REVISED
		MICHAEL PITCOCK	
		LINDSEY VAN PARYS	

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ALTERNATIVE 1

LAYOUT
SCALE: 1" = 50'

L-3

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: RONALD G. BOYLE

CALCULATED-DESIGNED BY: MICHAEL PITCOCK

CHECKED BY: LINDSEY VAN PARYS

REVISED BY

DATE REVISED



LAYOUT
SCALE: 1" = 50'

ALTERNATIVE 1

L-4

LAST REVISION: DATE PLOTTED => 8-11-2022
00-00-00 TIME PLOTTED => 15:11

BORDER LAST REVISED 7/2/2010

USERNAME => mpitcock
DGN FILE => ALTERNATIVE1- 4 LANES.DWG

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0317000163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

PRELIMINARY, NOT FOR CONSTRUCTION

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CONSULTANT FUNCTIONAL SUPERVISOR: RONALD G. BOYLE

CALCULATED-DESIGNED BY: MICHAEL PITCOCK

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REVISED BY

DATE REVISED



ALTERNATIVE 1

LAYOUT
SCALE: 1" = 50'

L-5

LAST REVISION | DATE PLOTTED => 8-11-2022
00-00-00 | TIME PLOTTED => 15:11

BORDER LAST REVISED 7/2/2010

USERNAME => mpitcock
DGN FILE => ALTERNATIVE1- 4 LANES.DWG

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0317000163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

PRELIMINARY; NOT FOR CONSTRUCTION

DATE

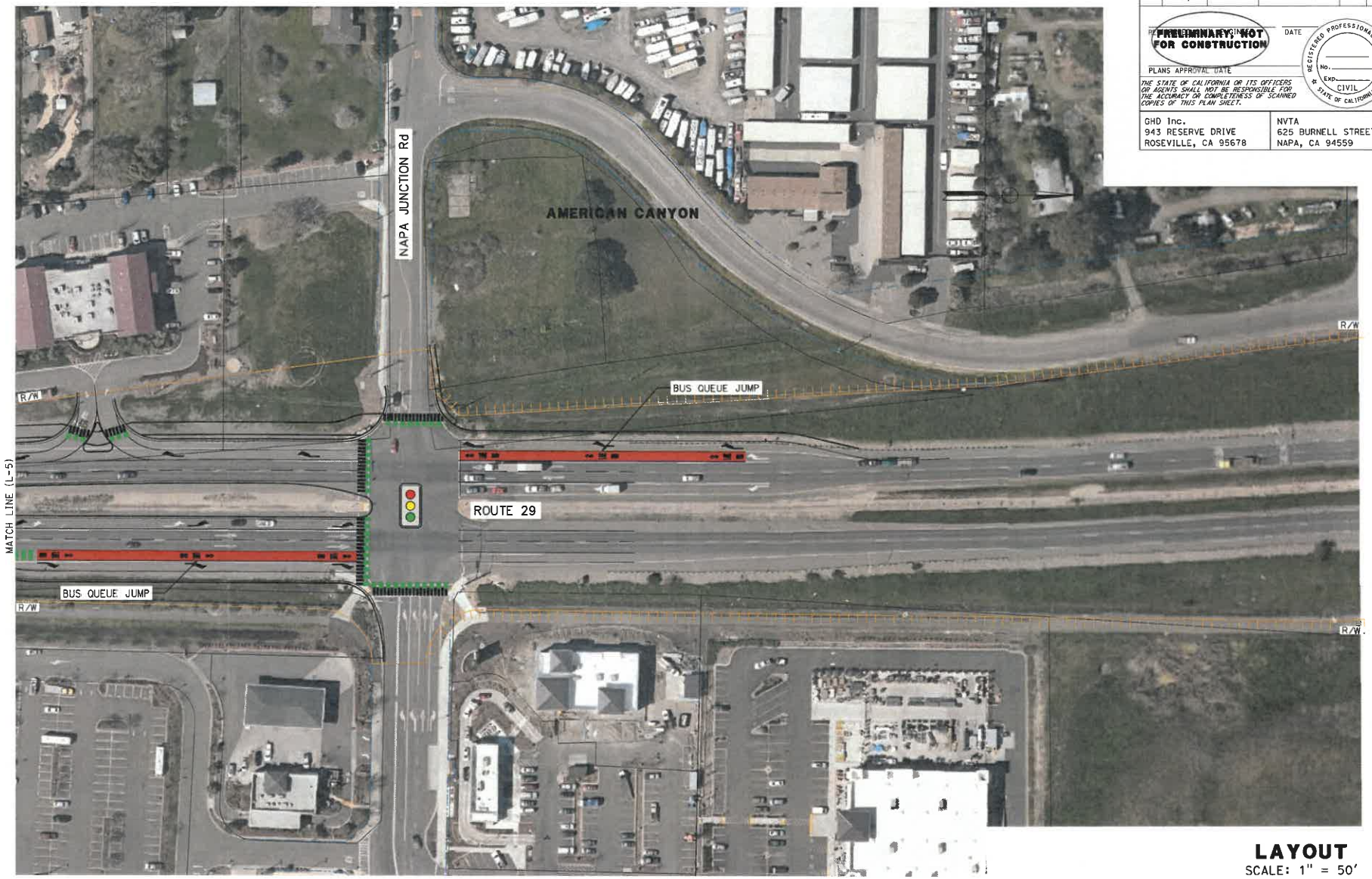
PLANS APPROVAL DATE

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NAPA, CA 94559



LAYOUT
SCALE: 1" = 50'

ALTERNATIVE 1

L-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISED BY	LAST REVISION
Caltrans	RONALD G. BOYLE	MICHAEL PITCOCK		DATE PLOTTED => 8-11-2022
	CHECKED BY	LINDSEY VAN PARYS	DATE REVISED	TIME PLOTTED => 15:11
				00-00-00

BORDER LAST REVISED 7/2/2010

USERNAME => mpitcock
DGN FILE => ALTERNATIVE1- 4 LANES.DWG

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0317000163

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PRELIMINARY, NOT FOR CONSTRUCTION

DATE

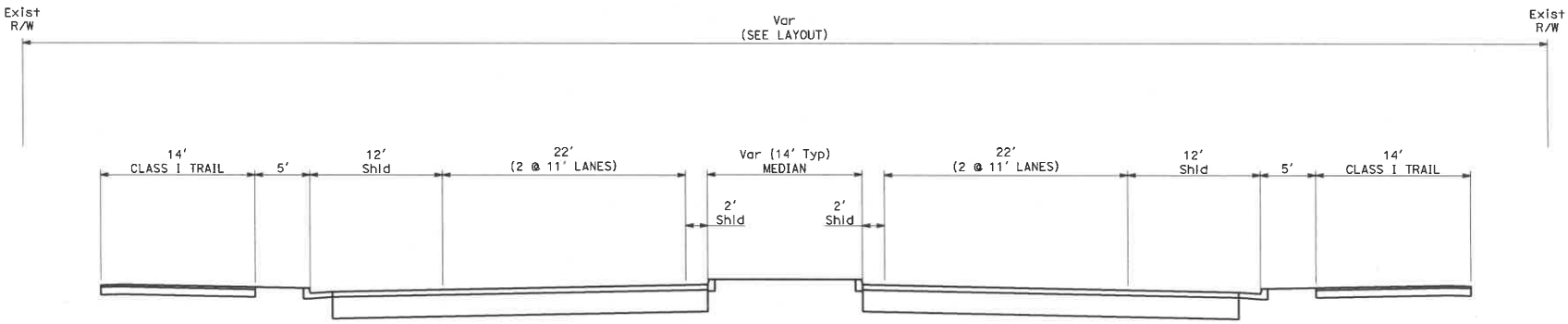
PLANS APPROVAL DATE

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ROUTE 29

TYPICAL SECTIONS
NO SCALE

ALTERNATIVE 2

X-1

	REVISED BY	MICHAEL PITCOCK
	DATE REVISED	LINDSEY VAN PARYS
	CALCULATED-DESIGNED BY	
	CHECKED BY	

CONSULTANT FUNCTIONAL SUPERVISOR: RONALD G. BOYLE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

BORDER LAST REVISED 7/2/2010

USERNAME => mpitcock
DGN FILE => ALTERNATIVE2- 4 LANES.DWG

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0317000163

LAST REVISION 00-00-00 | DATE PLOTTED => 8-11-2022 | TIME PLOTTED => 15:14

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

PRELIMINARY - NOT FOR CONSTRUCTION

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LAYOUT
SCALE: 1" = 50'

ALTERNATIVE 2

L-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | CONSULTANT FUNCTIONAL SUPERVISOR: RONALD G. BOYLE | CALCULATED-DESIGNED BY | CHECKED BY | MICHAEL PITCOCK | LINDSEY VAN PARYS | REVISED BY | DATE REVISED

LAST REVISION 00-00-00 | DATE PLOTTED => 8-11-2022 | TIME PLOTTED => 15:14

BORDER LAST REVISED 7/2/2010 | USERNAME => mpitcock | DGN FILE => ALTERNATIVE2- 4 LANES.DWG | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0317000163

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LAYOUT
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ALTERNATIVE 2

L-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: RONALD G. BOYLE

CALCULATED-DESIGNED BY: MICHAEL PITCOCK | CHECKED BY: LINDSEY VAN PARYS

REVISED BY | DATE REVISED

BORDER LAST REVISED 7/2/2010

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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

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ALTERNATIVE 2

LAYOUT
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L-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISED BY
Caltrans	RONALD G. BOYLE	CHECKED BY	DATE REVISED
		MICHAEL PITCOCK	
		LINDSEY VAN PARYS	

BORDER LAST REVISED 7/2/2010

USERNAME => mpitcock
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UNIT 0000

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NVTA
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NAPA, CA 94559



LAYOUT
SCALE: 1" = 50'

ALTERNATIVE 2

L-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | CONSULTANT FUNCTIONAL SUPERVISOR: RONALD G. BOYLE | CALCULATED-DESIGNED BY: MICHAEL PITCOCK | CHECKED BY: LINDSEY VAN PARYS | REVISED BY | DATE REVISED

LAST REVISION | DATE PLOTTED => 8-11-2022 | 00-00-00 TIME PLOTTED => 15:14

BORDER LAST REVISED 7/2/2010 | USERNAME => mpitcock | DGN FILE => ALTERNATIVE2- 4 LANES.DWG | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0317000163

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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ROSEVILLE, CA 95678

NVTA
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NAPA, CA 94559



LAYOUT
SCALE: 1" = 50'

ALTERNATIVE 2

L-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: RONALD G. BOYLE

CALCULATED-DESIGNED BY: MICHAEL PITCOCK

CHECKED BY: LINDSEY VAN PARYS

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RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0317000163

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CHD Inc. 943 RESERVE DRIVE ROSEVILLE, CA 95678	NVTA 625 BURNELL STREET NAPA, CA 94559



LAYOUT
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ALTERNATIVE 2

L-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	CONSULTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	MICHAEL PITCOOK	REVISED BY	
Caltrans	RONALD G. BOYLE	CHECKED BY	LINDSEY VAN PARYS	DATE REVISED	

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ATTACHMENT E

Preliminary Cost Estimates

PROJECT

PLANNING COST ESTIMATE ©

EA: 04-4Q010K PID: 419000297

EA: 04-4Q010K

PID: 419000297

District-County-Route: 04-NAP-29

PM: 0.69-2.05

Type of Estimate : Preliminary Project Cost Estimate

Program Code : TBD

Project Limits : American Canyon Rd to North Napa Junction Rd.

Project Description: Corridor Multimodal improvments

Scope : Multimodal Improvements- Class I Trail, Enhanced crossing marking, transit interesection improvements.

Alternative : Alternative # 1

SUMMARY OF PROJECT COST ESTIMATE

	Current Year Cost	Escalated Cost
TOTAL ROADWAY COST	$ 44,155,900	$ 53,147,808
TOTAL STRUCTURES COST	$ -	$ -
SUBTOTAL CONSTRUCTION COST	$ 44,155,900	$ 53,147,808
TOTAL RIGHT OF WAY COST	$ 4,884,416	$ 6,000,000
TOTAL CAPITAL OUTLAY COSTS	**$ 49,041,000**	**$ 59,148,000**
PA/ED SUPPORT	$ 3,964,000	$ 3,964,000
PS&E SUPPORT	$ 8,927,000	$ 9,302,000
RIGHT OF WAY SUPPORT	$ 479,000	$ 500,000
CONSTRUCTION SUPPORT	$ 2,453,000	$ 2,664,000
TOTAL SUPPORT COST	**$ 15,823,000**	**$ 16,430,000**
TOTAL PROJECT COST	**$ 64,900,000**	**$ 75,600,000**

Programmed Amount

	Month	/ Year
Date of Estimate (Month/Year)	9	/ 2022
Estimated Construction Start (Month/Year)	5	/ 2025
Number of Working Days =	360	
Estimated Mid-Point of Construction (Month/Year)	11	/ 2025
Estimated Construction End (Month/Year)	9	/ 2026

Number of Plant Establishment Days

Estimated Project Schedule

PID Approval

PA/ED Approval

PS&E

RTL

Begin Construction

Reviewed by District O.E. or Cost Estimate Certifier

Office Engineer / Cost Estimate Certifier	xx/xx/xxxx	(xxx) xxx-xxxx
	Date	Phone

Approved by Project Manager

Project Manager	xx/xx/xxxx	(xxx) xxx-xxxx
	Date	Phone

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	Earthwork	$	2,312,500
2	Pavement Structural Section	$	16,688,000
3	Drainage	$	1,870,000
4	Specialty Items	$	31,500
5	Environmental	$	2,685,900
6	Traffic Items	$	5,080,000
7	Detours	$	-
8	Minor Items	$	286,700
9	Roadway Mobilization	$	2,895,500
10	Supplemental Work	$	1,158,200
11	State Furnished	$	579,100
12	Time-Related Overhead	$	1,737,300
13	Roadway Contingency	$	8,831,200
	TOTAL ROADWAY ITEMS	**$**	**44,155,900**

Estimate Prepared By : Michael Pitcock — 9/12/2022 — (916) 782-8688

Michael Pitcock, PE — Date — Phone

Estimate Reviewed By : Lindsey Van Parys — 9/13/2022 — (916) 782-8688

Lindsey Van Parys, PE — Date — Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY	62,500	x	37.00	=	$	2,312,500
190105A	Roadway Excavation (Aerially Deposited Lead)	LS		x		=	$	-
194001	Ditch Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
192037	Structure Excavation (Retaining Wall)	CY		x		=	$	-
193013	Structure Backfill (Retaining Wall)	CY		x		=	$	-
193031	Pervious Backfill Material (Retaining Wall)	CY		x		=	$	-
16010X	Clearing & Grubbing	LS/ACRE		x		=	$	-
170101	Develop Water Supply	LS		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
210130	Duff	ACRE		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL EARTHWORK SECTION ITEMS $ 2,312,500

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
401050	Jointed Plain Concrete Pavement	CY		x		=	$	-
400050	Continuously Reinforced Concrete Pavement	CY		x		=	$	-
404092	Seal Pavement Joint	LF		x		=	$	-
404093	Seal Isolation Joint	LF		x		=	$	-
413117	Seal Concrete Pavement Joint (Silicone)	LF		x		=	$	-
413118	Seal Pavement Joint (Asphalt Rubber)	LF		x		=	$	-
280010	Rapid Strength Concrete Base	CY		x		=	$	-
410095	Dowel Bar (Drill and Bond)	EA		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON	73,400	x	130.00	=	$	9,542,000
390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON	12,500	x	150.00	=	$	1,875,000
395041	RHMA-O (Open Graded Fiction Course)	TON	6,300	x	150.00	=	$	945,000
393006	Geosynthetic Pavement Interlayer (Paving Grid)	SQYD		x		=	$	-
260203	Class 2 Aggregate Base	TON/CY	18,500	x	80.00	=	$	1,480,000
198215	Subgrade Enhancement Geogrid	SQYD	78,500	x	5.00		$	392,500
290201	Asphalt Treated Permeable Base	CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
374002	Asphaltic Emulsion (Fog Seal Coat)	TON		x		=	$	-
397005	Tack Coat	TON	120	x	1,100.00	=	$	132,000
390100	Prime Coat	TON	110	x	1,400.00	=	$	154,000
377501	Slurry Seal	TON		x		=	$	-
3750XX	Screenings (Type XX)	TON		x		=	$	-
374492	Asphaltic Emulsion (Polymer Modified)	TON		x		=	$	-
370001	Sand Cover (Seal)	TON		x		=	$	-
731530A	Hot Mix Asphalt (Textured Paving)	TONS		x		=	$	-
730020	Minor Concrete (Curb)	CY	400	x	850.00	=	$	340,000
731504	Minor Concrete (Curb and Gutter)	CY	925	x	850.00	=	$	786,250
731516	Minor Concrete (Driveway)	CY	200	x	600.00	=	$	120,000
731521	Minor Concrete (Sidewalk)	CY	1,150	x	600.00	=	$	690,000
39407X	Place Hot Mix Asphalt Dike (Type E)	LF		x		=	$	-
150771	Remove Asphalt Concrete Dike	LF		x		=	$	-
420201	Grind Existing Concrete Pavement	SQYD		x		=	$	-
150860	Remove Base and Surfacing	CY	2,650	x	50.00	=	$	132,500
390095	Replace Asphalt Concrete Surfacing	CY		x		=	$	-
15312X	Remove Concrete	LF/CY/LS		x		=	$	-
394090	Place Hot Mix Asphalt (Miscellaneous Area)	SQYD		x		=	$	-
153103	Cold Plane Asphalt Concrete Pavement	SQYD	14,100	x	7.00	=	$	98,700
39405X	Shoulder Rumble Strip (HMA, X-In Indentations)	STA		x		=	$	-
413113	Repair Spalled Joints, Polyester Grout	SQYD		x		=	$	-
420102	Groove Existing Concrete Pavement	SQYD		x		=	$	-
390136	Minor Hot Mix Asphalt	TON		x		=	$	-
394095	Roadside Paving (Miscellaneous Areas)	SQYD		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL PAVEMENT STRUCTURAL SECTION ITEMS $ 16,688,000

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
15080X	Remove Culvert	EA/LF		x		=	$	-
150820	Modify Inlet	EA		x		=	$	-
155232	Sand Backfill	CY		x		=	$	-
15020X	Abandon Culvert	EA/LF		x		=	$	-
152430	Adjust Inlet	LF		x		=	$	-
155003	Cap Inlet	EA		x		=	$	-
510501	Minor Concrete	CY		x		=	$	-
510502	Minor Concrete (Minor Structure)	CY		x		=	$	-
5105XX	Minor Concrete (Type XX)	CY		x		=	$	-
620XXX	XX" Alternative Pipe Culvert (Type X)	LF		x		=	$	-
6411XX	XX" Plastic Pipe	LF		x		=	$	-
65XXXX	XX" Reinforced Concrete Pipe (Type X)	LF		x		=	$	-
6650XX	XX" Corrugated Steel Pipe (0.XXX" Thick)	LF		x		=	$	-
68XXXX	XX" Plastic Pipe (Edge Drain)	LF		x		=	$	-
69011X	XX" Corrugated Steel Pipe Downdrain (0.XXX" Thi	LF		x		=	$	-
70321X	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick)	LF		x		=	$	-
70XXXX	XX" Corrugated Steel Pipe Riser (0.XXX" Thick)	LF		x		=	$	-
7050XX	XX" Steel Flared End Section	EA		x		=	$	-
703233	Grated Line Drain	LF		x		=	$	-
72XXXX	Rock Slope Protection (Type and Method)	CY/TON		x		=	$	-
72901X	Rock Slope Protection Fabric (Class X)	SQYD		x		=	$	-
721420	Concrete (Ditch Lining)	CY		x		=	$	-
721430	Concrete (Channel Lining)	CY		x		=	$	-
750001	Miscellaneous Iron and Steel	LB		x		=	$	-
XXXXXX	Treatment Best Management Practices	LS	1	x	500,000	=	$	500,000
XXXXXX	Additional Drainage	LS	1	x	1,370,000	=	$	1,370,000

TOTAL DRAINAGE ITEMS	$	1,870,000

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost
080050	Progress Schedule (Critical Path Method)	LS		x		=	$	-
582001	Sound Wall (Masonry Block)	SQFT		x		=	$	-
510530	Minor Concrete (Wall)	CY		x		=	$	-
15325X	Remove Sound Wall	LF/LS		x		=	$	-
070030	Lead Compliance Plan	LS	1	x	5,000.00	=	$	5,000
141120	Treated Wood Waste	LB	6,000	x	0.75	=	$	4,500
153221	Remove Concrete Barrier	LF		x		=	$	-
150662	Remove Metal Beam Guard Railing	LF	300	x	10.00	=	$	3,000
150668	Remove Flared End Section	EA		x		=	$	-
8000XX	Chain Link Fence (Type XX)	LF		x		=	$	-
80XXXX	XX" Chain Link Gate (Type CL-6)	EA		x		=	$	-
832005	Midwest Guardrail System	LF	300	x	60.00	=	$	18,000
839301	Single Thrie Beam Barrier	LF		x		=	$	-
839310	Double Thrie Beam Barrier	LF		x		=	$	-
839521	Cable Railing	LF		x		=	$	-
8395XX	Terminal System (Type WB-31)	EA		x		=	$	-
839585	Alternative Flared Terminal System	EA		x		=	$	-
839584	Alternative In-line Terminal System	EA		x		=	$	-
498052	60" CIDH Concrete Pile (Sign Foundation)	LF		x		=	$	-
839XXX	Crash Cushion (Insert Type)	EA		x		=	$	-
520103	Bar Reinforced Steel (Retaining Wall)	LB		x		=	$	-
510060	Structural Concrete, Retaining Wall	CY		x		=	$	-
513553	Retaining Wall (Masonry Wall)	SQFT		x		=	$	-
511035	Architectural Treatment	SQFT		x		=	$	-
598001	Anti-Graffiti Coating	SQFT		x		=	$	-
203070	Rock Stain	SQFT		x		=	$	-
5136XX	Reinforced Concrete Crib Wall (Type X)	SQFT		x		=	$	-
839543	Transition Railing (Type WB-31)	EA		x		=	$	-
597601	Prepare and Stain Concrete	SQFT		x		=	$	-
839561	Rail Tensioning Assembly	EA		x		=	$	-
83958X	End Anchor Assembly (Type X)	EA	1	x	1,000.00	=	$	1,000
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL SPECIALTY ITEMS	$	31,500

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost		
	Biological Mitigation	LS		x		=	$	-		
130670	Temporary Reinforced Silt Fence	LF	7,200	x	6.25	=	$	45,000		
141000	Temporary Fence (Type ESA)	LF		x		=	$	-		
								Subtotal Environmental Mitigation	$	*45,000*

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost		
20XXXX	Highway Planting	LS	1	x	700,000.00	=	$	700,000		
20XXXX	Irrigation System	LS	1	x	1,400,000.00	=	$	1,400,000		
204099	Plant Establishment Work	LS		x		=	$	-		
204101	Extend Plant Establishment Work	LS		x		=	$	-		
20XXXX	Follow-up Landscape Project	LS		x		=	$	-		
150685	Remove Irrigation Facility	LS		x		=	$	-		
20XXXX	Maintain Existing (Irrigation or Planted Areas)	LS		x		=	$	-		
206400	Check and Test Existing Irrigation Facilities	LS		x		=	$	-		
21011X	Imported Topsoil (X)	CY/TON		x		=	$	-		
20XXXX	Rock Blanket, Rock Mulch, DG, Gravel Mulch	SQFT/SQYD		x		=	$	-		
200122	Weed Germination	SQYD		x		=	$	-		
208304	Water Meter	EA		x		=	$	-		
2087XX	XX" Conduit (Use for Irrigation x-overs)	LF		x		=	$	-		
20890X	Extend X" Conduit (Use for Extension of Irrigation x-overs)	LF		x		=	$	-		
								Subtotal Landscape and Irrigation	$	*2,100,000*

5C - EROSION CONTROL

Item code		Unit	Quantity		Unit Price ($)			Cost		
210010	Move In/Move Out (Erosion Control)	EA	2	x	1,000.00	=	$	2,000		
210350	Fiber Rolls	LF	30,000	x	3.50	=	$	105,000		
210360	Compost Sock	LF		x		=	$	-		
2102XX	Rolled Erosion Control Product (X)	SQFT		x		=	$	-		
21025X	Bonded Fiber Matrix	SQFT/ACRE				=	$	-		
210300	Hydromulch	SQFT		x		=	$	-		
210420	Straw	SQFT		x		=	$	-		
210430	Hydroseed	SQFT	150,000	x	0.13	=	$	19,500		
210600	Compost	SQFT	150,000	x	0.25	=	$	37,500		
210630	Incorporate Materials	SQFT	150,000	x	0.09	=	$	13,500		
								Subtotal Erosion Control	$	*177,500*

5D - NPDES

Item code		Unit	Quantity		Unit Price ($)			Cost		
130300	Prepare SWPPP	LS	1	x	10,000.00	=	$	10,000		
130200	Prepare WPCP	LS		x		=	$	-		
130100	Job Site Management	LS	1	x	25,000.00	=	$	25,000		
130330	Storm Water Annual Report	EA	2	x	10,000.00	=	$	20,000		
130310	Rain Event Action Plan (REAP)	EA	40	x	500.00	=	$	20,000		
130320	Storm Water Sampling and Analysis Day	EA	40	x	500.00	=	$	20,000		
130520	Temporary Hydraulic Mulch	SQYD	13,000	x	5.00	=	$	65,000		
130550	Temporary Hydroseed	SQYD	13,000	x	10.00	=	$	130,000		
130505	Move-In/Move-Out (Temporary Erosion Control)	EA	5	x	5,000.00	=	$	25,000		
130640	Temporary Fiber Roll	LF		x		=	$	-		
130900	Temporary Concrete Washout	LS	1	x	3,000.00	=	$	3,000		
130710	Temporary Construction Entrance	EA	2	x	5,000.00	=	$	10,000		
130610	Temporary Check Dam	LF		x		=	$	-		
130620	Temporary Drainage Inlet Protection	EA	70	x	220.00	=	$	15,400		
130730	Street Sweeping	LS	1	x	20,000.00	=	$	20,000		
								Subtotal NPDES	$	*363,400*
								TOTAL ENVIRONMENTAL	$	**2,685,900**

Supplemental Work for NPDES

066595	Water Pollution Control Maintenance Sharing*	LS		x		=	$	-		
066596	Additional Water Pollution Control**	LS		x		=	$	-		
066597	Storm Water Sampling and Analysis***	LS		x		=	$	-		
XXXXXX	Some Item	LS		x		=	$	-		
								Subtotal Supplemental Work for NDPS	$	-

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
860460	Lighting and Sign Illumination	LS		x		=	$	-
860201	Signal and Lighting	LS	1	x	3,250,000.00	=	$	3,250,000
860990	Closed Circuit Television System	LS		x		=	$	-
86110X	Ramp Metering System (Location X)	LS		x		=	$	-
871812	Interconnection Conduit and Cable	LS		x		=	$	-
5602XX	Furnish Sign Structure (Type X)	LB		x		=	$	-
5602XX	Install Sign Structure (Type X)	LB		x		=	$	-
498040	XX" CIDHC Pile (Sign Foundation)	LF		x		=	$	-
86080X	Inductive Loop Detectors	EA/LS		x		=	$	-
8609XX	Traffic Monitoring Station (Type X)	LS		x		=	$	-
15075X	Remove Sign Structure	EA/LS		x		=	$	-
151581	Reconstruct Sign Structure	EA		x		=	$	-
152641	Modify Sign Structure	EA		x		=	$	-
860090	Maintain Existing Traffic Management System Elem	LS		x		=	$	-
86XXXX	Fiber Optic Conduit System	LS		x		=	$	-
XXXXX	Some Item	Unit		x		=	$	-

Subtotal Traffic Electrical $ *3,250,000*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
566011	Roadside Sign - One Post	EA		x		=	$	-
566012	Roadside Sign - Two Post	EA		x		=	$	-
5602XX	Furnish Sign	SQFT		x		=	$	-
568016	Install Sign Panel on Existing Frame	SQFT		x		=	$	-
150711	Remove Painted Traffic Stripe	LF		x		=	$	-
141101	Remove Yellow Painted Traffic Stripe (Hazardous Waste)	LF		x		=	$	-
150712	Remove Painted Pavement Marking	SQFT		x		=	$	-
150742	Remove Roadside Sign	EA		x		=	$	-
152320	Reset Roadside Sign	EA		x		=	$	-
152390	Relocate Roadside Sign	EA		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
840502	Thermoplastic Traffic Stripe (Enhanced Wet Night V	LF		x		=	$	-
846012	Thermoplastic Crosswalk and Pavement Marking (E	SQFT		x		=	$	-
120090	Construction Area Signs	LS		x		=	$	-
84XXXX	Permanent Pavement Delineation & Signage	LS	1	x	500,000.00	=	$	500,000

Subtotal Traffic Signing and Striping $ *500,000*

6C - Traffic Management Plan

Item code		Unit	Quantity		Unit Price ($)			Cost
12865X	Portable Changeable Message Signs	LS	1	x	$ 30,000	=	$	30,000

Subtotal Traffic Management Plan $ *30,000*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
	Stage Construction	LS	1	x	1,300,000.00	=	$	1,300,000
120199	Traffic Plastic Drum	EA		x		=	$	-
12016X	Channelizer (Type X)	EA		x		=	$	-
120120	Type III Barricade	EA		x		=	$	-
129100	Temporary Crash Cushion Module	EA		x		=	$	-
120100	Traffic Control System	LS		x		=	$	-
129110	Temporary Crash Cushion	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

Subtotal Stage Construction and Traffic Handling $ *1,300,000*

TOTAL TRAFFIC ITEMS $ **5,080,000**

SECTION 7: DETOURS

Includes constructing, maintaining, and removal

Item code		Unit	Quantity		Unit Price ($)		Cost
190101	Roadway Excavation	CY		x		= $	-
19801X	Imported Borrow	CY/TON		x		= $	-
390132	Hot Mix Asphalt (Type A)	TON		x		= $	-
26020X	Class 2 Aggregate Base	TON/CY		x		= $	-
250401	Class 4 Aggregate Subbase	CY		x		= $	-
130620	Temporary Drainage Inlet Protection	EA		x		= $	-
129000	Temporary Railing (Type K)	LF		x		= $	-
128601	Temporary Signal System	LS		x		= $	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		= $	-
80010X	Temporary Fence (Type X)	LF		x		= $	-
XXXXXX	Some Item	LS		x		= $	-

* Includes constructing, maintaining, and removal

TOTAL DETOURS $ -

SUBTOTAL SECTIONS 1 through 7 $ 28,667,900

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items					
ADA Items			1.0%	$	286,679
8B - Bike Path Items					
Bike Path Items			0.0%	$	-
8C - Other Minor Items					
Other Minor Items			0.0%	$	-
Total of Section 1-7	$ 28,667,900	x	1.0%	= $	286,679

TOTAL MINOR ITEMS $ **286,700**

SECTIONS 9: ROADWAY MOBILIZATION

Item code							
999990	Total Section 1-8	$ 28,954,600	x	10%	= $	2,895,460	

TOTAL ROADWAY MOBILIZATION $ **2,895,500**

SECTION 10: SUPPLEMENTAL WORK

Item code		Unit	Quantity		Unit Price ($)		Cost
066670	Payment Adjustments For Price Index Fluctuations	LS		x		= $	-
066094	Value Analysis	LS		x		= $	-
066070	Maintain Traffic	LS		x		= $	-
066919	Dispute Resolution Board	LS		x		= $	-
066921	Dispute Resolution Advisor	LS		x		= $	-
066015	Federal Trainee Program	LS		x		= $	-
066610	Partnering	LS		x		= $	-
066204	Remove Rock and Debris	LS		x		= $	-
066222	Locate Existing Crossover	LS		x		= $	-
XXXXXX	Some Item	Unit		x		= $	-

*Cost of **NPDES** Supplemental Work specified in Section 5D* = $ -

Total Section 1-8	$ 28,954,600	4%	= $	1,158,184	

TOTAL SUPPLEMENTAL WORK $ **1,158,200**

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
066105	Resident Engineers Office	LS		x		=	$0
066063	Traffic Management Plan - Public Information	LS		x		=	$0
066901	Water Expenses	LS		x		=	$0
8609XX	Traffic Monitoring Station (X)	LS		x		=	$0
066841	Traffic Controller Assembly	LS		x		=	$0
066840	Traffic Signal Controller Assembly	LS		x		=	$0
066062	COZEEP Contract	LS		x		=	$0
066838	Reflective Numbers and Edge Sealer	LS		x		=	$0
066065	Tow Truck Service Patrol	LS		x		=	$0
066916	Annual Construction General Permit Fee	LS		x		=	$0
XXXXXX	Some Item	Unit		x		=	$0
	Total Section 1-8		$ 28,954,600		2%	= $	579,092

TOTAL STATE FURNISHED **$579,100**

SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization $28,954,600 (used to calculate TRO)

Total Construction Cost (excluding TRO and Contingency) $33,587,400 (used to check if project is greater than $5 million excluding contingency)

Estimated Time-Related Overhead (TRO) Percentage (0% to 10%) = **6%**

Item code		Unit	Quantity		Unit Price ($)		Cost
090100	Time-Related Overhead	WD	360	X	$4,826	=	$1,737,300

TOTAL TIME-RELATED OVERHEAD **$1,737,300**

SECTION 13: ROADWAY CONTINGENCY

Total Section 1-12	$	35,324,700	x	**25%**	=	$8,831,175

TOTAL CONTINGENCY **$8,831,200**

II. STRUCTURE ITEMS

	Bridge 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Bridge Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Bridge Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$0		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

	Building 1		Building 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Building Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Building Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$0		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

TOTAL COST OF BRIDGES		**$0**
TOTAL COST OF BUILDINGS		**$0**
STRUCTURES MOBILIZATION	10%	**$0**

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)
Total recommended percentages includes any quantified risk based contingency from the risk register.

STRUCTURES CONTINGENCY	10%	**$0**
TOTAL COST OF STRUCTURES		**$0**

Estimate Prepared By: _____ _____

XXXXXXXXXXXXXXXX —— Division of Structures — Date

EA: 04-4Q010K PID: 419000297

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way Data Sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill, Fees	$	2,804,416
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	0
C)	C1)	Utility Relocation (Local Agency Share)	$	2,000,000
	C2)	Potholing (Design Phase)	$	80,000
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0%	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	0

L)	**TOTAL RIGHT OF WAY ESTIMATE**	**$4,884,416**
M)	**TOTAL R/W ESTIMATE: Escalated**	**$6,000,000**
N)	**RIGHT OF WAY SUPPORT**	**$500,000**

Support Cost Estimate Prepared By _____ Project Coordinator[1] Phone

Utility Estimate Prepared By _____ Utility Coordinator[2] Phone

R/W Acquisition Estimate Prepared By _____ Right of Way Estimator[3] Phone

Note: Items G & H applied to items A + B

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

PROJECT

PLANNING COST ESTIMATE ©

EA: 04-4Q010K PID: 419000297

EA: 04-4Q010K

PID: 419000297

District-County-Route: 04-NAP-29

PM: 0.69-2.05

Type of Estimate : Preliminary Project Cost Estimate

Program Code : TBD

Project Limits : American Canyon Rd to North Napa Junction Rd.

Project Description: Corridor Multimodal improvments & Intersection replacements

Scope : Multimodal Improvements-Class I Trail, Multilane Roundabout Construction. Construct Pedestrian Signals and Transit Signals

Alternative : Alternative # 2

SUMMARY OF PROJECT COST ESTIMATE

	Current Year Cost	Escalated Cost
TOTAL ROADWAY COST	$ 53,119,800	$ 63,937,117
TOTAL STRUCTURES COST	$ -	$ -
SUBTOTAL CONSTRUCTION COST	$ 53,119,800	$ 63,937,117
TOTAL RIGHT OF WAY COST	$ 8,916,667	$ 10,700,000
TOTAL CAPITAL OUTLAY COSTS	**$ 62,037,000**	**$ 74,638,000**
PA/ED SUPPORT	$ 5,003,000	$ 5,003,000
PS&E SUPPORT	$ 11,267,000	$ 11,741,000
RIGHT OF WAY SUPPORT	$ 479,000	$ 500,000
CONSTRUCTION SUPPORT	$ 3,102,000	$ 3,369,000
TOTAL SUPPORT COST	**$ 19,851,000**	**$ 20,613,000**
TOTAL PROJECT COST	**$ 81,900,000**	**$ 95,300,000**

Programmed Amount

	Month	/	Year
Date of Estimate (Month/Year)	9	/	2022
Estimated Construction Start (Month/Year)	5	/	2025
Number of Working Days =	360		
Estimated Mid-Point of Construction (Month/Year)	11	/	2025
Estimated Construction End (Month/Year)	9	/	2026

Number of Plant Establishment Days

Estimated Project Schedule

PID Approval

PA/ED Approval

PS&E

RTL

Begin Construction

Reviewed by District O.E. or Cost Estimate Certifier

Office Engineer / Cost Estimate Certifier	xx/xx/xxxx	(xxx) xxx-xxxx
	Date	**Phone**

Approved by Project Manager

Project Manager	xx/xx/xxxx	(xxx) xxx-xxxx
	Date	**Phone**

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	Earthwork	$	2,527,100
2	Pavement Structural Section	$	18,050,100
3	Drainage	$	3,300,000
4	Specialty Items	$	339,500
5	Environmental	$	4,440,900
6	Traffic Items	$	5,830,000
7	Detours	$	-
8	Minor Items	$	344,900
9	Roadway Mobilization	$	3,483,300
10	Supplemental Work	$	1,393,300
11	State Furnished	$	696,700
12	Time-Related Overhead	$	2,090,000
13	Roadway Contingency	$	10,624,000
	TOTAL ROADWAY ITEMS	**$**	**53,119,800**

Estimate Prepared By : Michael Pitcock — 9/12/2022 — (916) 782-8688

Michael Pitcock, PE — Date — Phone

Estimate Reviewed By : Lindsey Van Parys — 9/13/2022 — (916) 782-8688

Lindsey Van Parys, PE — Date — Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
190101	Roadway Excavation	CY	68,300	x	37.00	=	$	2,527,100
190105A	Roadway Excavation (Aerially Deposited Lead)	LS		x		=	$	-
194001	Ditch Excavation	CY		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
192037	Structure Excavation (Retaining Wall)	CY		x		=	$	-
193013	Structure Backfill (Retaining Wall)	CY		x		=	$	-
193031	Pervious Backfill Material (Retaining Wall)	CY		x		=	$	-
16010X	Clearing & Grubbing	LS/ACRE		x		=	$	-
170101	Develop Water Supply	LS		x		=	$	-
19801X	Imported Borrow	CY/TON		x		=	$	-
210130	Duff	ACRE		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL EARTHWORK SECTION ITEMS $ 2,527,100

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
401050	Jointed Plain Concrete Pavement	CY		x		=	$	-
400050	Continuously Reinforced Concrete Pavement	CY		x		=	$	-
404092	Seal Pavement Joint	LF		x		=	$	-
404093	Seal Isolation Joint	LF		x		=	$	-
413117	Seal Concrete Pavement Joint (Silicone)	LF		x		=	$	-
413118	Seal Pavement Joint (Asphalt Rubber)	LF		x		=	$	-
280010	Rapid Strength Concrete Base	CY		x		=	$	-
410095	Dowel Bar (Drill and Bond)	EA		x		=	$	-
390132	Hot Mix Asphalt (Type A)	TON	79,500	x	130.00	=	$	10,335,000
390137	Rubberized Hot Mix Asphalt (Gap Graded)	TON	12,400	x	150.00	=	$	1,860,000
395041	RHMA-O (Open Graded Fiction Course)	TON	6,200	x	150.00	=	$	930,000
393006	Geosynthetic Pavement Interlayer (Paving Grid)	SQYD		x		=	$	-
260203	Class 2 Aggregate Base	TON/CY	21,700	x	80.00	=	$	1,736,000
198215	Subgrade Enhancement Geogrid	SQYD	91,000	x	5.00		$	455,000
290201	Asphalt Treated Permeable Base	CY		x		=	$	-
250401	Class 4 Aggregate Subbase	CY		x		=	$	-
374002	Asphaltic Emulsion (Fog Seal Coat)	TON		x		=	$	-
397005	Tack Coat	TON	130	x	1,100.00	=	$	143,000
390100	Prime Coat	TON	110	x	1,400.00	=	$	154,000
377501	Slurry Seal	TON		x		=	$	-
3750XX	Screenings (Type XX)	TON		x		=	$	-
374492	Asphaltic Emulsion (Polymer Modified)	TON		x		=	$	-
370001	Sand Cover (Seal)	TON		x		=	$	-
731530A	Hot Mix Asphalt (Textured Paving)	TONS		x		=	$	-
730020	Minor Concrete (Curb)	CY	720	x	750.00	=	$	540,000
731504	Minor Concrete (Curb and Gutter)	CY	1,300	x	750.00	=	$	975,000
731516	Minor Concrete (Driveway)	CY	210	x	600.00	=	$	126,000
731521	Minor Concrete (Sidewalk)	CY	1,110	x	600.00	=	$	666,000
39407X	Place Hot Mix Asphalt Dike (Type E)	LF		x		=	$	-
150771	Remove Asphalt Concrete Dike	LF		x		=	$	-
420201	Grind Existing Concrete Pavement	SQYD		x		=	$	-
398300	Remove Base and Surfacing	CY	1,700	x	50.00	=	$	85,000
390095	Replace Asphalt Concrete Surfacing	CY		x		=	$	-
15312X	Remove Concrete	LF/CY/LS		x		=	$	-
394090	Place Hot Mix Asphalt (Miscellaneous Area)	SQYD		x		=	$	-
153103	Cold Plane Asphalt Concrete Pavement	SQYD	5,630	x	8.00	=	$	45,040
39405X	Shoulder Rumble Strip (HMA, X-In Indentations)	STA		x		=	$	-
413113	Repair Spalled Joints, Polyester Grout	SQYD		x		=	$	-
420102	Groove Existing Concrete Pavement	SQYD		x		=	$	-
390136	Minor Hot Mix Asphalt	TON		x		=	$	-
394095	Roadside Paving (Miscellaneous Areas)	SQYD		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL PAVEMENT STRUCTURAL SECTION ITEMS $ 18,050,100

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
15080X	Remove Culvert	EA/LF		x		=	$	-
150820	Modify Inlet	EA		x		=	$	-
155232	Sand Backfill	CY		x		=	$	-
15020X	Abandon Culvert	EA/LF		x		=	$	-
152430	Adjust Inlet	LF		x		=	$	-
155003	Cap Inlet	EA		x		=	$	-
510501	Minor Concrete	CY		x		=	$	-
510502	Minor Concrete (Minor Structure)	CY		x		=	$	-
5105XX	Minor Concrete (Type XX)	CY		x		=	$	-
620XXX	XX" Alternative Pipe Culvert (Type X)	LF		x		=	$	-
6411XX	XX" Plastic Pipe	LF		x		=	$	-
65XXXX	XX" Reinforced Concrete Pipe (Type X)	LF		x		=	$	-
6650XX	XX" Corrugated Steel Pipe (0.XXX" Thick)	LF		x		=	$	-
68XXXX	XX" Plastic Pipe (Edge Drain)	LF		x		=	$	-
69011X	XX" Corrugated Steel Pipe Downdrain (0.XXX" Thi	LF		x		=	$	-
70321X	XX" Corrugated Steel Pipe Inlet (0.XXX" Thick)	LF		x		=	$	-
70XXXX	XX" Corrugated Steel Pipe Riser (0.XXX" Thick)	LF		x		=	$	-
7050XX	XX" Steel Flared End Section	EA		x		=	$	-
703233	Grated Line Drain	LF		x		=	$	-
72XXXX	Rock Slope Protection (Type and Method)	CY/TON		x		=	$	-
72901X	Rock Slope Protection Fabric (Class X)	SQYD		x		=	$	-
721420	Concrete (Ditch Lining)	CY		x		=	$	-
721430	Concrete (Channel Lining)	CY		x		=	$	-
750001	Miscellaneous Iron and Steel	LB		x		=	$	-
XXXXXX	Treatment Best Management Practices	LS	1	x	750,000	=	$	750,000
XXXXXX	Additional Drainage	LS	1	x	2,550,000	=	$	2,550,000

TOTAL DRAINAGE ITEMS	$	3,300,000

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost
080050	Progress Schedule (Critical Path Method)	LS		x		=	$	-
582001	Sound Wall (Masonry Block)	SQFT		x		=	$	-
510530	Minor Concrete (Wall)	CY		x		=	$	-
15325X	Remove Sound Wall	LF/LS		x		=	$	-
070030	Lead Compliance Plan	LS	1	x	5,000.00	=	$	5,000
141120	Treated Wood Waste	LB	6,000	x	0.75	=	$	4,500
153221	Remove Concrete Barrier	LF		x		=	$	-
150662	Remove Metal Beam Guard Railing	LF	300	x	10.00	=	$	3,000
150668	Remove Flared End Section	EA		x		=	$	-
8000XX	Chain Link Fence (Type XX)	LF		x		=	$	-
80XXXX	XX" Chain Link Gate (Type CL-6)	EA		x		=	$	-
832005	Midwest Guardrail System	LF	300	x	60.00	=	$	18,000
839301	Single Thrie Beam Barrier	LF		x		=	$	-
839310	Double Thrie Beam Barrier	LF		x		=	$	-
839521	Cable Railing	LF		x		=	$	-
8395XX	Terminal System (Type WB-31)	EA		x		=	$	-
839585	Alternative Flared Terminal System	EA		x		=	$	-
839584	Alternative In-line Terminal System	EA		x		=	$	-
498052	60" CIDH Concrete Pile (Sign Foundation)	LF		x		=	$	-
839XXX	Crash Cushion (Insert Type)	EA		x		=	$	-
520103	Bar Reinforced Steel (Retaining Wall)	LB		x		=	$	-
510060	Structural Concrete, Retaining Wall	CY		x		=	$	-
513553	Retaining Wall (Masonry Wall)	SQFT		x		=	$	-
511035A	Architectural Treatment	LS	1	x	200,000.00	=	$	200,000
598001	Anti-Graffiti Coating	SQFT		x		=	$	-
203070	Rock Stain	SQFT		x		=	$	-
5136XX	Reinforced Concrete Crib Wall (Type X)	SQFT		x		=	$	-
839543	Transition Railing (Type WB-31)	EA		x		=	$	-
597601	Prepare and Stain Concrete	SQFT	18,000	x	6.00	=	$	108,000
839561	Rail Tensioning Assembly	EA		x		=	$	-
83958X	End Anchor Assembly (Type X)	EA	1	x	1,000.00	=	$	1,000
XXXXXX	Some Item	Unit		x		=	$	-

TOTAL SPECIALTY ITEMS	$	339,500

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)		Cost		
	Biological Mitigation	LS		x		= $	-		
130670	Temporary Reinforced Silt Fence	LF	7,200	x	6.25	= $	45,000		
141000	Temporary Fence (Type ESA)	LF		x		= $	-		
						Subtotal Environmental Mitigation		*$*	*45,000*

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)		Cost		
20XXXX	Highway Planting	LS	1	x	1,275,000.00	= $	1,275,000		
20XXXX	Irrigation System	LS	1	x	2,550,000.00	= $	2,550,000		
204099	Plant Establishment Work	LS		x		= $	-		
204101	Extend Plant Establishment Work	LS		x		= $	-		
20XXXX	Follow-up Landscape Project	LS		x		= $	-		
150685	Remove Irrigation Facility	LS		x		= $	-		
20XXXX	Maintain Existing (Irrigation or Planted Areas)	LS		x		= $	-		
206400	Check and Test Existing Irrigation Facilities	LS		x		= $	-		
21011X	Imported Topsoil (X)	CY/TON		x		= $	-		
20XXXX	Rock Blanket, Rock Mulch, DG, Gravel Mulch	SQFT/SQYD		x		= $	-		
200122	Weed Germination	SQYD		x		= $	-		
208304	Water Meter	EA		x		= $	-		
2087XX	XX" Conduit (Use for Irrigation x-overs)	LF		x		= $	-		
20890X	Extend X" Conduit (Use for Extension of Irrigation x-overs)	LF		x		= $	-		
						Subtotal Landscape and Irrigation		*$*	*3,825,000*

5C - EROSION CONTROL

Item code		Unit	Quantity		Unit Price ($)		Cost		
210010	Move In/Move Out (Erosion Control)	EA	2	x	1,000.00	= $	2,000		
210350	Fiber Rolls	LF	30,000	x	3.50	= $	105,000		
210360	Compost Sock	LF		x		= $	-		
2102XX	Rolled Erosion Control Product (X)	SQFT		x		= $	-		
21025X	Bonded Fiber Matrix	SQFT/ACRE				= $	-		
210300	Hydromulch	SQFT		x		= $	-		
210420	Straw	SQFT		x		= $	-		
210430	Hydroseed	SQFT	150,000	x	0.13	= $	19,500		
210600	Compost	SQFT	150,000	x	0.25	= $	37,500		
210630	Incorporate Materials	SQFT	150,000	x	0.09	= $	13,500		
						Subtotal Erosion Control		*$*	*177,500*

5D - NPDES

Item code		Unit	Quantity		Unit Price ($)		Cost		
130300	Prepare SWPPP	LS	1	x	10,000.00	= $	10,000		
130200	Prepare WPCP	LS		x		= $	-		
130100	Job Site Management	LS	1	x	25,000.00	= $	25,000		
130330	Storm Water Annual Report	EA	2	x	10,000.00	= $	20,000		
130310	Rain Event Action Plan (REAP)	EA	40	x	500.00	= $	20,000		
130320	Storm Water Sampling and Analysis Day	EA	40	x	500.00	= $	20,000		
130520	Temporary Hydraulic Mulch	SQYD	15,000	x	5.00	= $	75,000		
130550	Temporary Hydroseed	SQYD	15,000	x	10.00	= $	150,000		
130505	Move-In/Move-Out (Temporary Erosion Control)	EA	5	x	5,000.00	= $	25,000		
130640	Temporary Fiber Roll	LF		x		= $	-		
130900	Temporary Concrete Washout	LS	1	x	3,000.00	= $	3,000		
130710	Temporary Construction Entrance	EA	2	x	5,000.00	= $	10,000		
130610	Temporary Check Dam	LF		x		= $	-		
130620	Temporary Drainage Inlet Protection	EA	70	x	220.00	= $	15,400		
130730	Street Sweeping	LS	1	x	20,000.00	= $	20,000		
						Subtotal NPDES		*$*	*393,400*
						TOTAL ENVIRONMENTAL		**$**	**4,440,900**

Supplemental Work for NPDES

066595	Water Pollution Control Maintenance Sharing*	LS		x		= $	-		
066596	Additional Water Pollution Control**	LS		x		= $	-		
066597	Storm Water Sampling and Analysis***	LS		x		= $	-		
XXXXXX	Some Item	LS		x		= $	-		
						Subtotal Supplemental Work for NDPS		*$*	*-*

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
860460	Lighting and Sign Illumination	LS		x		=	$	-
860201	Signal and Lighting	LS	1	x	2,800,000.00	=	$	2,800,000
860990	Closed Circuit Television System	LS		x		=	$	-
86110X	Ramp Metering System (Location X)	LS		x		=	$	-
86070X	Interconnection Conduit and Cable	LF/LS		x		=	$	-
5602XX	Furnish Sign Structure (Type X)	LB		x		=	$	-
5602XX	Install Sign Structure (Type X)	LB		x		=	$	-
498040	XX" CIDHC Pile (Sign Foundation)	LF		x		=	$	-
86080X	Inductive Loop Detectors	EA/LS		x		=	$	-
8609XX	Traffic Monitoring Station (Type X)	LS		x		=	$	-
15075X	Remove Sign Structure	EA/LS		x		=	$	-
151581	Reconstruct Sign Structure	EA		x		=	$	-
152641	Modify Sign Structure	EA		x		=	$	-
860090	Maintain Existing Traffic Management System Elem	LS		x		=	$	-
872130	Modify Existing Electrcal System							
86XXXX	Fiber Optic Conduit System	LS		x		=	$	-
XXXXX	Some Item	Unit		x		=	$	-

Subtotal Traffic Electrical $ *2,800,000*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
566011	Roadside Sign - One Post	EA		x		=	$	-
566012	Roadside Sign - Two Post	EA		x		=	$	-
5602XX	Furnish Sign	SQFT		x		=	$	-
568016	Install Sign Panel on Existing Frame	SQFT		x		=	$	-
150711	Remove Painted Traffic Stripe	LF		x		=	$	-
141101	Remove Yellow Painted Traffic Stripe (Hazardous Waste)	LF		x		=	$	-
150712	Remove Painted Pavement Marking	SQFT		x		=	$	-
150742	Remove Roadside Sign	EA		x		=	$	-
152320	Reset Roadside Sign	EA		x		=	$	-
152390	Relocate Roadside Sign	EA		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
840502	Thermoplastic Traffic Stripe (Enhanced Wet Night \	LF		x		=	$	-
846012	Thermoplastic Crosswalk and Pavement Marking (E	SQFT		x		=	$	-
120090	Construction Area Signs	LS		x		=	$	-
84XXXX	Permanent Pavement Delineation & Signage	LS	1	x	500,000.00	=	$	500,000

Subtotal Traffic Signing and Striping $ *500,000*

6C - Traffic Management Plan

Item code		Unit	Quantity		Unit Price ($)			Cost
12865X	Portable Changeable Message Signs	EA/LS	1	x	$ 30,000	=	$	30,000

Subtotal Traffic Management Plan $ *30,000*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
	Stage Construction	LS	1	x	2,500,000.00	=	$	2,500,000
120199	Traffic Plastic Drum	EA		x		=	$	-
12016X	Channelizer (Type X)	EA		x		=	$	-
120120	Type III Barricade	EA		x		=	$	-
129100	Temporary Crash Cushion Module	EA		x		=	$	-
120100	Traffic Control System	LS		x		=	$	-
129110	Temporary Crash Cushion	EA		x		=	$	-
129000	Temporary Railing (Type K)	LF		x		=	$	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		=	$	-
82010X	Delineator (Class X)	EA		x		=	$	-
XXXXXX	Some Item	Unit		x		=	$	-

Subtotal Stage Construction and Traffic Handling $ *2,500,000*

TOTAL TRAFFIC ITEMS $ **5,830,000**

SECTION 7: DETOURS

Includes constructing, maintaining, and removal

Item code		Unit	Quantity		Unit Price ($)		Cost
190101	Roadway Excavation	CY		x		= $	-
19801X	Imported Borrow	CY/TON		x		= $	-
390132	Hot Mix Asphalt (Type A)	TON		x		= $	-
26020X	Class 2 Aggregate Base	TON/CY		x		= $	-
250401	Class 4 Aggregate Subbase	CY		x		= $	-
130620	Temporary Drainage Inlet Protection	EA		x		= $	-
129000	Temporary Railing (Type K)	LF		x		= $	-
128601	Temporary Signal System	LS		x		= $	-
120149	Temporary Pavement Marking (Paint)	SQFT		x		= $	-
80010X	Temporary Fence (Type X)	LF		x		= $	-
XXXXXX	Some Item	LS		x		= $	-

* Includes constructing, maintaining, and removal

TOTAL DETOURS $ -

SUBTOTAL SECTIONS 1 through 7 $ 34,487,600

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items					
ADA Items			1.0%	$	344,876
8B - Bike Path Items					
Bike Path Items			0.0%	$	-
8C - Other Minor Items					
Other Minor Items			0.0%	$	-
Total of Section 1-7	$ 34,487,600	x	1.0%	= $	344,876

TOTAL MINOR ITEMS $ **344,900**

SECTIONS 9: ROADWAY MOBILIZATION

Item code							
999990	Total Section 1-8	$ 34,832,500	x	10%	= $	3,483,250	

TOTAL ROADWAY MOBILIZATION $ **3,483,300**

SECTION 10: SUPPLEMENTAL WORK

Item code		Unit	Quantity		Unit Price ($)		Cost
066670	Payment Adjustments For Price Index Fluctuations	LS		x		= $	-
066094	Value Analysis	LS		x		= $	-
066070	Maintain Traffic	LS		x		= $	-
066919	Dispute Resolution Board	LS		x		= $	-
066921	Dispute Resolution Advisor	LS		x		= $	-
066015	Federal Trainee Program	LS		x		= $	-
066610	Partnering	LS		x		= $	-
066204	Remove Rock and Debris	LS		x		= $	-
066222	Locate Existing Crossover	LS		x		= $	-
XXXXXX	Some Item	Unit		x		= $	-

*Cost of **NPDES** Supplemental Work specified in Section 5D* = $ -

Total Section 1-8	$ 34,832,500	4%	= $	1,393,300	

TOTAL SUPPLEMENTAL WORK $ **1,393,300**

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
066105	Resident Engineers Office	LS		x		=	$0
066063	Traffic Management Plan - Public Information	LS		x		=	$0
066901	Water Expenses	LS		x		=	$0
8609XX	Traffic Monitoring Station (X)	LS		x		=	$0
066841	Traffic Controller Assembly	LS		x		=	$0
066840	Traffic Signal Controller Assembly	LS		x		=	$0
066062	COZEEP Contract	LS		x		=	$0
066838	Reflective Numbers and Edge Sealer	LS		x		=	$0
066065	Tow Truck Service Patrol	LS		x		=	$0
066916	Annual Construction General Permit Fee	LS		x		=	$0
XXXXXX	Some Item	Unit		x		=	$0
	Total Section 1-8		$ 34,832,500		2%	= $	696,650

TOTAL STATE FURNISHED $696,700

SECTION 12: TIME-RELATED OVERHEAD

Total of Roadway and Structures Contract Items excluding Mobilization $34,832,500 (used to calculate TRO)

Total Construction Cost (excluding TRO and Contingency) $40,405,800 (used to check if project is greater than $5 million excluding contingency)

Estimated Time-Related Overhead (TRO) Percentage (0% to 10%) = **6%**

Item code		Unit	Quantity		Unit Price ($)		Cost
090100	Time-Related Overhead	WD	360	X	$5,806	=	$2,090,000

TOTAL TIME-RELATED OVERHEAD $2,090,000

SECTION 13: ROADWAY CONTINGENCY

Total Section 1-12	$	42,495,800	x	**25%**	= $10,623,950

TOTAL CONTINGENCY $10,624,000

II. STRUCTURE ITEMS

	Bridge 1		Bridge 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Bridge Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Bridge Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$0		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

	Building 1		Building 2		
DATE OF ESTIMATE	00/00/00		00/00/00		00/00/00
Building Name	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX		57-XXX		57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0 LF		0 LF		0 LF
Total Building Length (Feet)	0 LF		0 LF		0 LF
Total Area (Square Feet)	0 SQFT		0 SQFT		0 SQFT
Structure Depth (Feet)	0 LF		0 LF		0 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$0		$0		$0
COST OF EACH	**$0**		**$0**		**$0**

TOTAL COST OF BRIDGES		**$0**
TOTAL COST OF BUILDINGS		**$0**
STRUCTURES MOBILIZATION	10%	**$0**

Recommended Contingency: (Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)
Total recommended percentages includes any quantified risk based contingency from the risk register.

STRUCTURES CONTINGENCY	10%	**$0**
TOTAL COST OF STRUCTURES		**$0**

Estimate Prepared By: _____ _____

XXXXXXXXXXXXXXXX —— Division of Structures — Date

EA: 04-4Q010K PID: 419000297

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way Data Sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill, Fees	$	6,536,667
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	0
C)	C1)	Utility Relocation (Local Agency Share)	$	2,300,000
	C2)	Potholing (Design Phase)	$	80,000
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0%	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	0

L)	**TOTAL RIGHT OF WAY ESTIMATE**	**$8,916,667**
M)	**TOTAL R/W ESTIMATE: Escalated**	**$10,700,000**
N)	**RIGHT OF WAY SUPPORT**	**$500,000**

Support Cost Estimate Prepared By _____ Project Coordinator[1] _____ Phone

Utility Estimate Prepared By _____ Utility Coordinator[2] _____ Phone

R/W Acquisition Estimate Prepared By _____ Right of Way Estimator[3] _____ Phone

Note: Items G & H applied to items A + B

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

ATTACHMENT F

K Phase Right of Way Conceptual Cost Estimate Request

K PHASE CONCEPTUAL COST ESTIMATE FORM - RIGHT OF WAY

A RIGHT OF WAY DATA SHEET WILL NEED TO BE COMPLETED FOR SUBSEQUENT PHASES*

To: **Caltrans District 4**
(REQUESTING DIVISION)

Michael O'Callaghan
(NAME OF REQUESTOR)

Date: **August 12, 2022**

Dist-Co-Rte-PM: **04-NAP-29-PM 0.69/PM 2.05**
Project ID/EA: **04190002971/04-4Q010**
Alternative #: **1**

From: **Brett A. Paulson, SRWA, RAC, NAC**
RIGHT OF WAY, Estimator
(CA DRE License No. 01405337)

John F. Almazán, Sr. Right of Way Agent
RIGHT OF WAY, QA/QC, Estimator
(CA DRE Real Estate Broker License No. 01104860)

The Conceptual Cost Estimate Request was received for the above-referenced project on 5/12/2022 with a requested completion date of 6/6/2022.

Scope of the Right of Way
Description of Required Right of Way: **The required right of way consists of partial acquisitions from the frontages of Highway Commercial properties. The acquisitions do not appear to impact the commercial businesses. There are also a few single family residential and multi-residential properties impacted. Temporary construction easements will also be needed to facilitate the construction. For estimation purposes, $28.31/sf was used for Commercial, $13.13/sf for Single Family Residential, and $23.82/sf for Multi-Residential properties. An itemized acquisition worksheet is available.**

Right of Way Required: ☒ Yes ☐ No
Number of Total Parcels: ☐ 1-10 ☐ 11-25 ☒ 26-50 ☐ 51-100 ☐ >100

Right of Way Requirements

Number of Fee Parcels **28** Total Fee Area **44,337 sf**
Number of Permanent Easements **Unknown** Total Permanent Easement Area **Unknown**
Number of Temporary Easements **50** Total Temporary Easement Area **67,505 sf**
Length of Term Required for Temporary Easements **48 months**
Number of Excess Parcels/Other **Unknown**

K PHASE CONCEPTUAL COST ESTIMATE FORM - RIGHT OF WAY (Cont.)

USA Lands:	☐ Yes	☒ No	☐ Unknown	
BIA Lands:	☐ Yes	☒ No	☐ Unknown	
Displaced Persons/Businesses:	☐ Yes	☒ No	☐ Unknown	Number of Displacees **0**
Demolition/Clearance Required:	☐ Yes	☒ No	☐ Unknown	Number of Demos **0**
Railroad Involvement:	☐ Yes	☐ No	☒ Unknown	
C&M Agreement Needed:	☐ Yes	☐ No	☒ Unknown	
Utility Involvement:	☒ Yes	☐ No	☐ Unknown	Number of Utilities in Area 8
UT Relocations Anticipated:	☒ Yes	☐ No	☐ Unknown	
Potholing Needed:	☒ Yes	☐ No	☐ Unknown	
Project Public Meetings:	☒ Yes	☐ No	☐ Unknown	Number of Meetings 2-4
Permits To Enter ENV/ENG:	☒ Yes	☐ No	☐ Unknown	Number of Permits TBD
Environmental Mitigation:	☐ Yes	☒ No	☐ Unknown	Type_____
Outdoor Advertising Signs:	☐ Yes	☒ No	☐ Unknown	Number of Signs_____

Cost Estimates

Estimate reflects Right of Way only and does not include any capital costs for Right of Way Engineering/Land Surveys.

Capital Costs - Phase 9

- ☐ $0-$100,000
- ☐ $100,001-$250,000
- ☐ $250,001-$500,000
- ☐ $500,001-$1,000,000
- ☒ $1,000,001-$2,500,000
- ☐ $2,500,001-$5,000,000
- ☐ $5,000,001-$10,000,000
- ☐ $10,000,001-$25,000,000
- ☐ $25,000,001-$100,000,000
- ☐ >$100,000,000

Capital Costs – Phase 4

- ☐ $0-$100,000
- ☐ $100,001-$250,000
- ☐ $250,001-$500,000
- ☒ $500,001-$1,000,000
- ☐ $1,000,001-$2,500,000
- ☐ $2,500,001-$5,000,000
- ☐ $5,000,001-$10,000,000
- ☐ $10,000,001-$25,000,000
- ☐ $25,000,001-$100,000,000
- ☐ >$100,000,000

Phase 9 - Recommended R/W Capital Cost for Programming

$1.9 million, includes a 25% contingency and escalation to 2026

Phase 4 - Recommended R/W Capital Cost for Programming

$4.1 million, includes a 25% contingency and escalation to 2026

Estimate reflects Right of Way only and does not include any support costs for Right of Way Engineering/Land Surveys.

Phase 0 Support Costs (PA&ED) Tasks: 100.10, 160.10, 160.30, 165.10, 170.10, 170.15, 170.25, 175.10, 180.05, 180.10	**$50,000**

Phase 1 Support Costs (PS&E) Tasks: 100.15, 185.05, 185.20, 185.25, 205.10, 205.15, 205.25, 235.05, 235.10, 255		
	☒ $0-$100,000	☐ $2,500,001-$5,000,000
	☐ $100,001-$250,000	☐ $5,000,001-$10,000,000
	☐ $250,001-$500,000	☐ $10,000,001-$25,000,000
	☐ $500,001-$1,000,000	☐ $25,000,001-$100,000,000
	☐ $1,000,001-$2,500,000	☐ >$100,000,000

Phase 2 Support Costs (RW) Tasks: 100.25, 195.40, 195.45, 200.15, 200.20, 200.25, 200.30, 225.50, 225.60, 225.65, 225.70, 225.75, 225.80, 245.50, 245.60, 245.65, 245.70, 245.75, 245.80		
	☐ $0-$100,000	☐ $2,500,001-$5,000,000
	☐ $100,001-$250,000	☐ $5,000,001-$10,000,000
	☒ $250,001-$500,000	☐ $10,000,001-$25,000,000
	☐ $500,001-$1,000,000	☐ $25,000,001-$100,000,000
	☐ $1,000,001-$2,500,000	☐ >$100,000,000

Phase 3 Support Costs (CON) Tasks: 270.25, 285		
	☒ $0-$100,000	☐ $2,500,001-$5,000,000
	☐ $100,001-$250,000	☐ $5,000,001-$10,000,000
	☐ $250,001-$500,000	☐ $10,000,001-$25,000,000
	☐ $500,001-$1,000,000	☐ $25,000,001-$100,000,000
	☐ $1,000,001-$2,500,000	☐ >$100,000,000

Schedule
Right of Way will require a minimum of **24** months to deliver a Right of Way Certification once final right of way requirements and mapping have been received, necessary environmental clearances have been obtained, and required freeway agreements have been approved. This schedule is based on a Right of Way Certification #1 with an anticipated cert date **to be determined once funding is identified**.

Areas of Concern
Potential areas of concern are noted below:

The majority of the impacted properties along the highway are commercial. There is risk of some claims for loss of business goodwill.

Assumptions and Limiting Conditions
This estimate is based on the following assumptions and limiting conditions and documented project risks:

The Scope of the Right of Way analysis includes applicable:

- Acquisition Costs (including any Excess Lands, Damages, Mitigation, etc.)
- Utility Relocation
- Railroad Involvement
- Relocation Assistance
- Clearance/Demolition
- Permits
- Title and Escrow Fees
- Construction Contract Work

Capital Costs are based on eminent domain estimating and appraisal methodologies and current market information. Support Costs are based on district workload estimating tools and historical data from previous similar projects.

Escalation and Contingency Rates were applied based on the proposed project schedule and previous district experience to account for changes in market conditions and other unanticipated project-related costs.

Check as applicable:

☒ A field review was not performed as part of this estimate.

☒ Mapping received did not provide sufficient detail to determine the limits of the right of way requirements and/or to determine damages to the remainder parcels impacted by the project.

☒ Additional right of way requirements may be anticipated but are not defined due to the preliminary nature of the early design requirements.

☐ We have determined that there are no right of way functional involvements in the proposed project at this time as currently designed.

☒ Utility lead time begins after PA&ED is met and we have received conflict maps.

☐ Right of Way certification is at risk. The current schedule does not provide Right of Way with sufficient lead time.

Contact
For further information regarding this estimate, please contact person below:

Title: ***Brett Paulson, SRWA/RAC/NAC***
Phone Number: ***(949) 632-5909***

Attachment(s)

1) Conceptual Cost Estimate Request (with mapping)
2) Acquisition Worksheet Alternative #1

K PHASE CONCEPTUAL COST ESTIMATE FORM - RIGHT OF WAY

A RIGHT OF WAY DATA SHEET WILL NEED TO BE COMPLETED FOR SUBSEQUENT PHASES*

To: **Caltrans District 4**
(REQUESTING DIVISION)

Michael O'Callaghan
(NAME OF REQUESTOR)

Date: **August 12, 2022**

Dist-Co-Rte-PM: **04-NAP-29-PM 0.69/PM 2.05**
Project ID/EA: **0419000297/04-4Q010**
Alternative #: **2**

From: **Brett A. Paulson, SRWA, RAC, NAC**
RIGHT OF WAY, Estimator
(CA DRE License No. 01405337)

John F. Almazán, Sr. Right of Way Agent
RIGHT OF WAY, QA/QC, Estimator
(CA DRE Real Estate Broker License No. 01104860)

The Conceptual Cost Estimate Request was received for the above-referenced project on 5/18/2022 with a requested completion date of 6/6/2022.

Scope of the Right of Way
Description of Required Right of Way: **The required right of way consists of partial acquisitions from the frontages of Highway Commercial properties. A full acquisition of APN 058-312-009, including relocation and demolition, will be required. A few of the acquisitions do appear to impact some of the commercial businesses. There are also a few single family residential and multi-residential properties impacted. Temporary construction easements will also be needed to facilitate the construction. For estimation purposes, $28.31/sf was used for Commercial, $13.13/sf for Single Family Residential, and $23.82/sf for Multi-Residential properties. An itemized acquisition worksheet is available.**

Right of Way Required: ☒ Yes ☐ No
Number of Total Parcels: ☐ 1-10 ☐ 11-25 ☐ 26-50 ☒ 51-100 ☐ >100

Right of Way Requirements

Number of Fee Parcels **38** Total Fee Area **126,310 sf**
Number of Permanent Easements **Unknown** Total Permanent Easement Area **Unknown**
Number of Temporary Easements **56** Total Temporary Easement Area **111,379 sf**
Length of Term Required for Temporary Easements **48 months**
Number of Excess Parcels/Other **Unknown**

K PHASE CONCEPTUAL COST ESTIMATE FORM - RIGHT OF WAY (Cont.)

USA Lands:	☐ Yes	☒ No	☐ Unknown	
BIA Lands:	☐ Yes	☒ No	☐ Unknown	
Displaced Persons/Businesses:	☒ Yes	☐ No	☐ Unknown	Number of Displacees **Unknown**
Demolition/Clearance Required:	☒ Yes	☐ No	☐ Unknown	Number of Demos **Unknown**
Railroad Involvement:	☐ Yes	☐ No	☒ Unknown	
C&M Agreement Needed:	☐ Yes	☐ No	☒ Unknown	
Utility Involvement:	☒ Yes	☐ No	☐ Unknown	Number of Utilities in Area 8
UT Relocations Anticipated:	☒ Yes	☐ No	☐ Unknown	
Potholing Needed:	☒ Yes	☐ No	☐ Unknown	
Project Public Meetings:	☒ Yes	☐ No	☐ Unknown	Number of Meetings 2
Permits To Enter ENV/ENG:	☒ Yes	☐ No	☐ Unknown	Number of Permits **Unknown**
Environmental Mitigation:	☐ Yes	☒ No	☐ Unknown	Type_____
Outdoor Advertising Signs:	☐ Yes	☒ No	☐ Unknown	Number of Signs_____

Cost Estimates

Estimate reflects Right of Way only and does not include any capital costs for Right of Way Engineering/Land Surveys.

Capital Costs - Phase 9

- ☐ $0-$100,000
- ☐ $100,001-$250,000
- ☐ $250,001-$500,000
- ☐ $500,001-$1,000,000
- ☐ $1,000,001-$2,500,000
- ☐ $2,500,001-$5,000,000
- ☒ $5,000,001-$10,000,000
- ☐ $10,000,001-$25,000,000
- ☐ $25,000,001-$100,000,000
- ☐ >$100,000,000

Capital Costs – Phase 4

- ☐ $0-$100,000
- ☐ $100,001-$250,000
- ☐ $250,001-$500,000
- ☐ $500,001-$1,000,000
- ☐ $1,000,001-$2,500,000
- ☒ $2,500,001-$5,000,000
- ☐ $5,000,001-$10,000,000
- ☐ $10,000,001-$25,000,000
- ☐ $25,000,001-$100,000,000
- ☐ >$100,000,000

Phase 9 - Recommended R/W Capital Cost for Programming

$5.72 million, including a 25% contingency and escalation to 2026.

Phase 4 - Recommended R/W Capital Cost for Programming

$4.98 million, including a 25% contingency and escalation to 2026.

Estimate reflects Right of Way only and does not include any support costs for Right of Way Engineering/Land Surveys.

Phase 0 Support Costs (PA&ED) Tasks: 100.10, 160.10, 160.30, 165.10, 170.10, 170.15, 170.25, 175.10, 180.05, 180.10	**$50,000**

Phase 1 Support Costs (PS&E) Tasks: 100.15, 185.05, 185.20, 185.25, 205.10, 205.15, 205.25, 235.05, 235.10, 255	☒ $0-$100,000	☐ $2,500,001-$5,000,000
	☐ $100,001-$250,000	☐ $5,000,001-$10,000,000
	☐ $250,001-$500,000	☐ $10,000,001-$25,000,000
	☐ $500,001-$1,000,000	☐ $25,000,001-$100,000,000
	☐ $1,000,001-$2,500,000	☐ >$100,000,000

Phase 2 Support Costs (RW) Tasks: 100.25, 195.40, 195.45, 200.15, 200.20, 200.25, 200.30, 225.50, 225.60, 225.65, 225.70, 225.75, 225.80, 245.50, 245.60, 245.65, 245.70, 245.75, 245.80	☐ $0-$100,000	☐ $2,500,001-$5,000,000
	☐ $100,001-$250,000	☐ $5,000,001-$10,000,000
	☒ $250,001-$500,000	☐ $10,000,001-$25,000,000
	☐ $500,001-$1,000,000	☐ $25,000,001-$100,000,000
	☐ $1,000,001-$2,500,000	☐ >$100,000,000

Phase 3 Support Costs (CON) Tasks: 270.25, 285	☒ $0-$100,000	☐ $2,500,001-$5,000,000
	☐ $100,001-$250,000	☐ $5,000,001-$10,000,000
	☐ $250,001-$500,000	☐ $10,000,001-$25,000,000
	☐ $500,001-$1,000,000	☐ $25,000,001-$100,000,000
	☐ $1,000,001-$2,500,000	☐ >$100,000,000

Schedule
Right of Way will require a minimum of **24** months to deliver a Right of Way Certification once final right of way requirements and mapping have been received, necessary environmental clearances have been obtained, and required freeway agreements have been approved. This schedule is based on a Right of Way Certification #1 with an anticipated cert date **to be determined once funding is identified**.

Areas of Concern
Potential areas of concern are noted below:

The majority of the impacted properties along the highway are commercial. There is risk of a number of claims for loss of business goodwill.

Assumptions and Limiting Conditions
This estimate is based on the following assumptions and limiting conditions and documented project risks:

The Scope of the Right of Way analysis includes applicable:

- Acquisition Costs (including any Excess Lands, Damages, Mitigation, etc.)
- Utility Relocation
- Railroad Involvement
- Relocation Assistance
- Clearance/Demolition
- Permits
- Title and Escrow Fees
- Construction Contract Work

Capital Costs are based on eminent domain estimating and appraisal methodologies and current market information. Support Costs are based on district workload estimating tools and historical data from previous similar projects.

Escalation and Contingency Rates were applied based on the proposed project schedule and previous district experience to account for changes in market conditions and other unanticipated project-related costs.

Check as applicable:

☒ A field review was not performed as part of this estimate.

☒ Mapping received did not provide sufficient detail to determine the limits of the right of way requirements and/or to determine damages to the remainder parcels impacted by the project.

☒ Additional right of way requirements may be anticipated but are not defined due to the preliminary nature of the early design requirements.

☐ We have determined that there are no right of way functional involvements in the proposed project at this time as currently designed.

☒ Utility lead time begins after PA&ED is met and we have received conflict maps.

☐ Right of Way certification is at risk. The current schedule does not provide Right of Way with sufficient lead time.

Contact
For further information regarding this estimate, please contact person below:

Title: ***Brett Paulson, SRWA/RAC/NAC***
Phone Number: ***(949) 632-5909***

Attachment(s)

1) Conceptual Cost Estimate Request (with mapping)
2) Acquisition Worksheet Alternative #2

ATTACHMENT G

Preliminary Environmental Analysis Report

PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT

1. Project Information

DIST-CO-RTE: 4-Napa-29	**PM/PM:** 0.0-2.5
EA: 4Q010	**EFIS Project ID:** 0419000297
Project Title: State Route 29 American Canyon Corridor Project	
Project Manager: Danielle Schmitz	**Phone:** (707) 259-5968
Project Engineer: Lindsey Van Parys, GHD, Inc.	**Phone:** (916) 245-4220
Environmental Office Chief/Manager: Lindsay Vivian	**Phone:** (510) 506-4310
PEAR Preparer: Charles Smith, AICP, LEED AP	**Phone:** (949) 585-5257

2. Project Description

Purpose and Need

Purpose

Provide a multimodal and complete streets corridor that:

- Improves mobility for all users;
- Improves safety for all users by incorporating Vision Zero concepts;
- Eliminates overhead utility poles;
- Improves corridor aesthetics;
- Reduces Vehicle Miles Traveled (VMT) by encouraging transportation mode shift which will help to reduce regional traffic on residential streets;
- Improves customer access to businesses adjacent to SR 29;
- Provides improved accessibility for all modes of transportation along SR 29 between American Canyon Road and Napa Junction Road.

Need

Regionally, State Route (SR) 29 provides a direct connection between counties along Interstate 80 and 580 and counties along US 101 in the North Bay. Locally, SR 29 is also the lifeblood of access into and out of Napa County.

Notwithstanding their disparate local context, vehicular volumes on SR 29 are comparable to other nearby state highways (SR 12 and SR 37). However, because the SR 29 Corridor (also known as "Broadway") functions as American Canyon's "Main Street," it experiences significant safety, aesthetic, and operational issues between American Canyon Road and Napa Junction during weekday and weekend peak hour conditions. The most pronounced issues in the corridor include:

- Lack of multimodal connectivity - particularly for bicycle and pedestrian access - along and across SR 29;
- Lack of low-stress routing options for bicyclists and pedestrians along SR 29;

- Lack of public transit lanes, facilities and pull outs for stops;
- Lack of aesthetic benefits of landscaping along the corridor to help define American Canyon's "Main Street;
- Unprotected overhead utility poles within the State right-of-way are within the clear recovery zone;
- Regional traffic congestion hinders customer access to American Canyon's "Main Street" commercial businesses;
- Constraints at intersections cause extensive queuing, delays, and bottlenecks, resulting in unreliable travel times for both motorists and public transit and traffic diverting to residential streets;
- Compromised feasibility to provide enhanced transit service due to travel time unreliability;
- Increased safety risk and conflicts between motorists and active transportation users due to unseparated facilities and high speed differentials; and
- Increased response times for public safety vehicles.

Description of work

SR 29 is a major throughway through the City of American Canyon in Napa County. The Napa County Transportation Authority, in partnership with Caltrans District 4 and the City of American Canyon, is seeking to provide multiple multimodal improvements along SR 29, within American Canyon city limits, in order to address significant safety and operational issues.

Alternative selection will be made from those described below, to achieve the project's desired multimodal and safety improvements.

Alternatives

In addition to the No Build Alternative, two build alternatives have been identified:

- **No Build Alternative:** The No Build Alternative assumes the existing land geometrics, traffic control, and pedestrian and bicycle facilities would remain the same. No intersection improvements, pedestrian and bicycle facilities, or corridor management systems would be improved or installed.
- **Build Alternative 1 – Comprehensive Multimodal Corridor Plan(CMCP) 4-Lane Alternative:** This alternative is largely consistent with the SR 29 CMCP and includes the construction of multimodal improvements adjacent to the shoulders of SR 29. Overall improvements are as follows:
    - Maintain SR 29 at 4 lanes, reducing lane widths to 11 feet
    - Construct island separated Class I facilities adjacent to SR 29 in both directions. Island width is 5 feet for both directions. A separation width of 3' (not including 2' Class I shoulder) could be utilized in right of way restrictive situations, still providing a HDM standard design.
    - Construct 18' paved median (14' island and two 2' shoulders)

- Widen shoulders to 12' (including 2' gutter pan) to allow for part time bus on shoulder (queue jumps)
- Reconfigure and improve intersections along the corridor.

- **Alternative 2 - Roundabouts along SR 29:** Alternative 2 would construct roundabouts along SR 29 between Crawford Way and Napa Junction Road. Due to high turning and side street volumes, American Canyon Road would remain a traffic signal. Alterative 2 proposes a 4-lane corridor similar to Alternative 1, with the exception that there would be no bus on shoulder improvements (queue jumps) to accommodate free flow traffic. The corridor would be widened to 6 lanes approaching the intersections. Roundabouts are proposed to increase overall circulation while providing traffic calming and enhanced intersection safety for all users. A separated Class I bikeway would be constructed along both directions of the roadway with adjacent sidewalk spanning the length of the project.

During construction of the Alternatives 1 and-2, work would generally occur during the day (7:00 a.m. -7:00p.m.). No night work is anticipated. Staging of construction equipment would occur within Caltrans right-of-way, a Caltrans-owned parcel, and a City of American Canyon-owned parcel. Utility relocation is anticipated to be required under both alternatives in order to underground existing utility lines

It is anticipated that temporary construction easements and right-of-way acquisition would be needed in several areas under each of the build alternatives. Alternative 2 would likely require a greater amount of right-of-way acquisition than Alternative 1 in order to accommodate the roundabouts and additional roadway lanes.

Based on the PSR-PDS Report prepared by GHD for the City of American Canyon, Alternative 1 would increase efficiency of the roadway via the least intrusive construction phase. However, Alternative 2 may provide more long-term solutions to the congestion and excessive queuing issues currently plaguing the roadway. Alternative 2 would require additional take of right-of way and would be more expensive to implement.

3. Anticipated Environmental Approval

CEQA (choose one):

☐ Exemption

☐ Statutory ☐ Categorical ☐ Common Sense

☒ Initial Study or Focused Initial Study with proposed Negative Declaration (ND) or Mitigated ND

☐ Environmental Impact Report

NEPA (choose one):

☒ Categorical Exclusion

☐ Environmental Assessment with Finding of No Significant Impact

☐ Routine ☐ Complex

☐ Environmental Impact Statement

CEQA Lead Agency (if determined): Caltrans

Estimated length of time (months) to obtain environmental approval: 18 months

Estimated person hours to complete identified tasks: Not applicable, The project is not a reimbursable project, with the exception of the PID phase. Per direction from Caltrans PM, estimating Caltrans level of effort for subsequent project delivery phases is not necessary. Support Hours for oversight have been excluded because they are not needed.

4. Special Environmental Considerations

The proposed project is located in a fairly developed area and is not expected to require unusual, exceptional, or extended environmental processes. Vegetation in the project area is generally limited to ornamental landscape plantings and/or ruderal vegetation. Special-status species may be present. Some portions of the roadway would need to be widened; this could impact a drainage channel and may be subject to U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife jurisdiction.

Pursuant to Senate Bill 743 and the current CEQA Guidelines, evaluation of the project's potential transportation impacts will require consideration of vehicle miles traveled (VMT), which refers to the amount and distance of automobile travel attributable to a project. Transportation projects that reduce or have no impact on VMT are presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. The purpose of the project is to provide multiple multimodal improvements along SR 29, within American Canyon city limits, in order to address significant safety and operational issues. The project does not add additional motor vehicle capacity and is not anticipated to require an induced vehicle travel analysis.

5. Anticipated Environmental Commitments

The anticipated NEPA environmental document for the proposed project is a Categorical Exclusion with supporting technical studies. This document level has been selected based on the minimal environmental constraints present in the project study area and the low potential for the project (including all the alternatives) to cause significant environmental impacts with incorporation of standard mitigation commitments. Caltrans would serve as the NEPA lead agency under its assumption of responsibility pursuant to 23 U.S. Code 327. The environmental technical reports and

Categorical Exclusion would take approximately 18 months to prepare and process, including time for substantive review by environmental division staff with Caltrans.

The anticipated CEQA document for the proposed project is an Initial Study/Mitigated Negative Declaration. NVTA would serve as the CEQA lead agency for the project, if delegated by Caltrans. The environmental document is anticipated to take approximately 14 months to prepare and process, including time for substantive review by the environmental division staff with Caltrans. Any changes in scope will require further project review and reassessment of the level of environmental documentation.

Please refer to Attachment A (PEAR Environmental Studies Checklist) for an overview of which environmental studies would be required during PA&ED, and Attachment B for an estimated schedule. A Mitigation and Compliance Cost Estimate and Cost Considerations are not required to be attached. The PSR-PDS will include (as a separate attachment from the PEAR) cost estimates for both alternatives.

6. Permits and Approvals

It is assumed that temporary construction easements (TCEs) will be needed on a majority of the parcels in order to conform the proposed improvements to the existing land uses. The extent of TCE's needed will be explored in further detail in the PA/ED Phase of the project but is conservatively assumed to require 20' from ROW.

Anticipated permits for the project would be further confirmed during the PA&ED phase. Some existing culverts would be extended but would not adversely affect capacity or ability to convey water through the project site. The project would also include improvements made within Caltrans and City right-of-way. The following permits or approvals may be required for the project:

- U.S. Army Corps of Engineers (Corps) – Section 404 Nationwide Permit (anticipated to be NWP 14, Linear Transportation Projects)
- State Historic Preservation Officer (SHPO) - Section 106 Consultation
- Regional Water Quality Control Board - 401 Water Quality Certification
- State Water Resources Control Board (SWRCB) – General Storm Water Construction Permit
- California Department of Fish and Wildlife (CDFW) - Streambed Alteration Agreement
- Caltrans encroachment permit - Improvements made within a Caltrans right-of-way

7. Level of Effort: Risks and Assumptions

The following considerations (see Chapter 5 of the Standard Environmental Reference; SER) can affect the level of effort and resources needed for the environmental analysis.

Assumptions	Risk Statement	Risk Probability	Risk Impact		
			Schedule	Cost	Scope
It is assumed no special-status species will be adversely impacted in the project area.	If it is found later that special status species are present within the project area and will be adversely impacted, then additional permits, avoidance measures, minimization measures, and/or mitigation will be necessary.	2	Moderate	High	Moderate
It is assumed no nesting birds will be observed in the project area.	If a nesting bird is observed within the project area, then the construction may be delayed in the buffer area until the chicks have fledged. This will add time and cost to the project.	2	Low	Low	Very Low
It is assumed permits to enter from property owners will be necessary.	If no permission is given by the property owners, then this could delay or prevent field surveys and delay environmental studies.	2	Moderate	Moderate	Moderate
It is assumed the scope of the project will not be increased.	If the scope of the project increases, then this may increase the length and time of the environmental studies or revalidation, increase the project cost, elevate the document level, and delay the project schedule.	1	Very High	Very High	Very High
It is assumed access to land for cultural studies will be obtained promptly.	Risk of delaying cultural surveys due to inability to obtain access to land (private PTEs and/or public land -ARPA, etc.) in an adequate timeframe would lead to delay in PA&ED studies.	1	Moderate	Low	Very Low
It is assumed no built environment resources requiring additional study or consultation will be identified.	Risk of identification of built environment resource(s) within the APE during cultural resource surveys that require additional documentation, evaluation, and/or consultation with consulting parties, would result in an additional 3-12 months and $50,000-$100,000.	2	High	High	Moderate
It is assumed the project will not adversely impact a historic built environment resource.	Risk of adversely impacting a historic built environment resource, will require the preparation of an MOA in consultation with consulting parties and establishment of mitigation measures (e.g., Data Recovery), which would result in an additional 12-24 months and $100,000-$200,000.	2	Very High	High	Moderate
It is assumed the project will not	Risk of adversely impacting a historic or pre-historic	2	High	Moderate	Moderate

Assumptions	Risk Statement	Risk Probability	Risk Impact		
			Schedule	Cost	Scope
adversely impact a historic or pre-historic archaeological resource.	archaeological site, will require the preparation of an MOA in consultation with consulting parties and establishment of mitigation measures (e.g. Data Recovery), which would result in an additional 12-24 months and $100,000-$200,000.				
It is assumed no buried cultural materials will be found at the work site.	If buried cultural materials are encountered during construction, it is Caltrans' policy that work stop in that area until a qualified archaeologist can evaluate the nature and significance of the find.	2	Very High	Very High	Moderate
It is assumed tree removal or trimming would occur outside of the nesting bird season (February 1st –September 31st).	If tree removal or trimming does occur during the nesting bird season and nesting birds were encountered work would be stopped and a biologist would be needed to implement a buffer and monitor the nesting birds until they fledge.	3	Moderate	Moderate	Moderate
It is assumed preparation of an Initial Study / Mitigated Negative Declaration will satisfy CEQA requirements.	If there are potential environmental impacts that cannot be mitigated below a level of significance, an Initial Study/Mitigated Negative Declaration will not be appropriate, and an Environmental Impact Report may be required to satisfy CEQA requirements.	2	High	High	High

Risk Probability Ranking	
Ranking	Probability of Risk Event
5	60-99%
4	40-59%
3	20-39%
2	10-19%
1	1-9%

Evaluating Impact of a Threat on Project Objectives						
Impact		Very Low	Low	Moderate	High	Very High
Objectives	Time	Insignificant Schedule Slippage	Delivery Plan Milestone Delay within quarter	Delivery Plan milestone delay of one quarter	Delivery Plan milestone delay of more than one quarter	Delivery Plan milestone delay outside of fiscal year
	Cost	Insignificant Cost Increase	<5% Cost Increase	5-10% Cost Increase	10-20% Cost Increase	>20% Cost Increase
	Scope	Scope decrease is barely noticeable	Changes in project limits or features with <5% Cost Increase	Changes in project limits of features with 5-10% Cost Increase	Sponsor does not agree that Scope meets the purpose and need	Scope does not meet purpose and need

8. PEAR Technical Summaries

The following paragraphs focus on topics that will need environmental review, consistent with the PEAR Environmental Studies Checklist (Attachment A).

8.1 Land Use:

The proposed project site is located within an urbanized area of the City of American Canyon. The project site is located within Caltrans right-of-way and generally bordered by land uses designated and zoned as community commercial and commercial neighborhood. There are 20 parcels zoned community commercial, and two parcels zoned commercial neighborhood with a residential overlay. Existing land uses in the immediate vicinity of the project site include commercial uses such as car washes, gas stations, grocery stores, churches, nursery, a few open lots, and several single-family residences.

Temporary construction easements (TCE) and acquisition of right-of-way would be required from the adjacent parcels along the length of the project footprint under all three alternatives. Alternative 2 would likely require additional acquisition of right-of way compared to Alternative 1 in order to accommodate the roundabouts and additional roadway lanes proposed. It is assumed that a land use memo would be prepared during PA&ED.

The project site is not located within any publicly owned parks or recreational areas, however there are several public parks within a quarter mile of the project site. No right-of-way acquisition or temporary construction easements would be required within these recreational facilities. Therefore, it is not expected that the project would affect any Section 4(f) resources. It is anticipated that a no use memo would be prepared during PA&ED.

8.2 Growth:

Based on the historical and current population, housing, and employment trends, growth in the region and within the project area is inevitable. Although the project has been designed to accommodate anticipated levels of growth, implementation of the project itself would not construct residential housing developments or include development approvals that would induce growth beyond what is planned or being planned by local jurisdictions. Therefore, the project would not result in the conversion of adjacent land uses or improve access in ways that would foster local development beyond that which is already planned.

8.3 Farmlands/Timberlands:

The project is generally located within a commercial area/corridor. No farmlands or timberlands exist within the project area and therefore, none would be impacted as a result of the project.

8.4 Community Impacts:

The project study area is located in the City of American Canyon, in Napa County. According to the 2010 US Census, the City of American Canyon had a population of 19,454, consisting of 38.9% White, 7.9% African American, 0.7% Native American, 32.9% Asian, 0.9% Pacific Islander, 12.1% from other races, and 6.6% from two or more races. As of 2000, the median income for a household in the City was $52,105, and the median income for a family was $61,536. Out of the total population, 9.6% of those under the age of 18 and 10.6% of those 65 and older were living below the poverty line.

Although project construction would be temporary, it would take place over a period of months and could be disruptive to the local area. Lane closures, detours, and other construction over extended periods could temporarily impact local residents and businesses and result in temporary negative economic impacts as a result of lost business and/or increased commute times. However, in the long term, the Build Alternatives would provide necessary multimodal circulation infrastructure and enhanced safety within the Napa County transportation system. A Land Use and Community Impact Technical Memo would be prepared in support of the project during the PA&ED phase.

8.5 Visual/Aesthetics:

The Alternative 1 improvements would likely result in minor changes to the built environment, including new / improved shared use paths, and the potential widening of roadway surfaces at limited and specified locations. These improvements would likely result in minor impacts to a variety of existing paved and vegetated surface conditions. Project impacts to permanent irrigated landscapes would require retrofit or replacement

of existing landscaping and/or irrigation systems. Any impacts to vegetation currently acting as a visual screen would also require replacement.

Alternative 2 would result in a greater change to the existing built environment than Alternative 1, as Alternative 2 would include the construction and operation of new roundabouts and of two additional travel lanes on the roundabout approaches and through the intersections. Additional undeveloped areas would be converted to paved roadway when compared to Alternative 1. The intersection improvements under both alternatives would largely be consistent with the current visual character of the project site given it is generally characterized as a major throughway through American Canyon.

A Visual Impact Assessment (VIA) Questionnaire to identify potential visual impacts associated with the proposed project improvements was prepared by Lucas Piper, LLA., No. 5873. The Questionnaire resulted in a score of 14 points for Alternative 1, and 16 points for Alternative 2. The visual character of the site under each alternative would remain a heavily trafficked highway. Therefore, it is anticipated that the proposed improvements are expected to be largely consistent with the existing visual environment, however either a brief memorandum or a minor VIA addressing visual issues should be prepared.

8.6 Cultural Resources:

A review of the Northwestern Information Center (NWIC) was requested on June 29, 2020. The NWIC reviewed base maps that reference cultural resource records and reports, historic-period maps, and literature for Napa County. Through this review, it was determined that there have been 68 cultural resource studies that cover a portion of the proposed project area. Within the project area or immediately adjacent to it there are seven recorded archaeological resources, included two recorded Native American archaeological resources and five historic period archaeological resources. The State Office of Historic Preservation Built Environment Resources Directory (OHP BERD), which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places, lists four recorded buildings or structures within or adjacent to the proposed project area. Therefore, there is potential for the project to encounter cultural and historical resources during construction of the proposed project.

Alternative 2 would result in a greater area of disturbance in comparison to Alternative 1. This would increase the possibility of encountering unknown cultural or historical resources present within the construction footprint and would result in potential increase in impacts to cultural resources. Alternative 1 would reduce potential impacts to cultural resources to the extent feasible.

It is anticipated that an Archaeological Survey Report (ASR), Historic Property Survey Report (HPSR), and potentially a Historic Resources Evaluation Report (HRER) would be prepared during the PA&ED phase. The Project would also comply with the Caltrans Section 106 Programmatic Agreement, as well as Section 106 Consultation. AB 52

Tribal consultation will also be required per state law. This additional research and consultation will be provided during the PA&ED phase.

8.7 Hydrology and Floodplain:

The project is not located in a Federal Emergency Management Agency (FEMA)-designated 100-year floodplain and would not adversely impact drainage or flood risk in the area. Some existing culverts would be extended but would not adversely affect capacity or ability to convey water through the project site.

8.8 Water Quality and Storm Water Runoff:

The project site is not located within or immediately adjacent to a body of water such as a river or creek. However, there are several riverine drainages located adjacent to SR 29. Since Alternative 1 may require the roadway be widened marginally to allow for the additional bus queues, lanes and multi-use paths, it has the potential to impact these drainages. Alternative 2 would widen the roadway significantly more than under the Alternative 1, which may result in increased impacts to adjacent drainages.

An aquatic resource delineation will need to be conducted to determine if these drainages are jurisdictional and their extent. If they are determined to be jurisdictional, regulatory agency permits may be required to ensure potential impacts to these jurisdictional features are minimized to the extent feasible and adequately mitigated for. An evaluation of potential water quality impacts would be prepared during PA&ED.

Citations:

NWI, National Wetlands Inventory. 2020. National Wetlands Inventory mapper. July. Accessed July 2020. https://www.fws.gov/wetlands/data/Mapper.html

8.9 Geology, Soils, Seismic and Topography:

Napa County is located within the California Coast Range geomorphic province, a geologically complex and seismically active region. The project site is located within the southern portion of the County. This area is generally flat, therefore the risk of landslides in the area is considered low. The West Napa, Concord-Green Valley, and Rogers Creek are the three faults closest to the City of American Canyon. Fault rupture and ground shaking are the most likely seismic hazards along the project corridor. Native soils in the project vicinity include Clear Lake clay, Haire clay loam, and Fagan clay loam. A geotechnical investigation would be prepared to address geotechnical constraints for the project during the PA&ED phase. The geotechnical report shall be submitted to Caltrans when completed.

8.10 Paleontology:

The project would include construction-related excavation; however, the project area is not known for having a high sensitivity for paleontological resources or resources on the

National Registry of Natural Landmarks. Paleontological resources are not anticipated at the project site and a clearance memo will be prepared during the PA&ED phase.

8.11 Hazardous Waste/Materials:

The project area is located within a fairly urban environment. According to the State Water Resources Control Board GeoTracker database, there are eight recorded hazardous material sites along and within the immediate vicinity of Alternative 1. All eight of these sites are designated "case closed" and no additional remedial action needs to be taken (GeoTracker 2020). Therefore, it is unlikely that hazardous material would be encountered during construction phase of Alternative 1. Alternative 2 would disturb a slightly greater area than Alternative 1, but no additional closed or open cases would overlap with the footprint of this alternative beyond what was assessed for Alternative 1. Therefore, impacts resulting from potential exposure to hazardous material sites would be similar under all alternatives.

Additionally, the project site, inclusive of the extent of the larger footprint of Alternative 2, is not located within a Federal Emergency Management 100-year flood zone (FEMA 2020), nor is it located within a high hazard fire zone (Napa County). Therefore, it is not anticipated that any of the alternatives would be affected by floods or fire hazards.

Citations:

Federal Emergency Management Agency (FEMA). 2020. Flood Insurance Rate Maps. July. Accessed July 2020.

Napa County. 2014. Wildland Fire Background Report.

Office of Planning and Research. 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. December

State Water Quality Control Board. 2020. GeoTracker. June. Accessed June 2020.

8.12 Air Quality:

The project area is designated as nonattainment of the federal ozone and fine particulate matter (PM2.5) standard, and nonattainment for the state ozone, and suspended particulate matter (PM2.5 and PM10) standards. The project area is designated as either attainment or unclassified for all other federal and state ambient air quality standards. Ozone is not emitted directly into the air, but is a regional pollutant formed by a photochemical reaction in the atmosphere. Ozone precursors, reactive organic gases (ROG), and nitrogen oxides (NOx) react in the atmosphere in the presence of sunlight to form ozone.

Project construction would result in regional air pollutant and precursor emissions from equipment exhaust and worker trips to the project site. The types of air pollutants generated by construction activities are typically NOx and particulate matter, such as

dust and exhaust. Construction activities could temporarily increase levels of PM2.5 and PM10 downwind of construction activity. These are temporary emissions that vary considerably from day-to-day and by the type of equipment and weather. In addition, carbon monoxide (CO) and reactive organic gases (ROG) are emitted during use of gas and diesel-powered construction-equipment. Construction of Alternative 1 is anticipated to occur over approximately 7 months. Alternative 2 would require a longer construction period, due to the additional intersection improvements proposed and the widening of the roadway.

As provided by the Bay Area Air Quality Management District's (BAAQMD's) 2017 CEQA Air Quality Guidelines (Guidelines), if the project meets the screening criteria for an impact category and is consistent with the methodology used to develop the screening criteria, then its air quality impact for that category may be considered less than significant. The BAAQMD's Guidelines provides screening criteria for determining whether a project could potentially result in significant construction-phase impacts from criteria pollutants and precursors. Construction of the project would result in a less than significant impact to air quality if the following screening criteria are met:

- The project is below the applicable screening level size shown in Table 1 [of the BAAQMD 2017 CEQA Air Quality Guidelines].
- All Basic Construction Mitigation Measures are included in the project design and implemented during construction.
- Construction-related activities would not include any of the following:
  - Demolition activities inconsistent with District Regulation 11, Rule 2: Asbestos Demolition, Renovation and Manufacturing;
  - Simultaneous occurrence of more than two construction phases;
  - Simultaneous construction of more than one land use type;
  - Extensive site preparation; or
  - Extensive material transport (e.g., greater than 10,000 cubic yards of soil import/export) requiring a considerable amount of haul truck activity.

The BAAQMD does not have a screening level specific for transportation infrastructure construction. For reference, the applicable construction criteria pollutant and precursor screening level for a city park is 600 acres of construction. The applicable construction screening level for general heavy industry land use or an industrial park is 11 acres. At an estimated construction footprint of 6 acres or less, the project would be less than the BAAQMD's construction criteria pollutant and precursor screening level.

Demolition activities would not require the removal of asbestos. The project would not involve the simultaneous occurrence of more than two construction phases and would not impact more than one land-use type (commercial). The project would not involve extensive site preparation or material transport. The project incorporates the basic construction measures recommended through design specifications. However, the volume of materials import and export is currently unknown. If the project's import/export volume remains under 10,000 cubic yards total, then the project's construction activity would not exceed the BAAQMD's screening guidance and would not generate a significant air quality impact. However, if the project's import/export

volume meets or exceeds 10,000 cubic yards total, additional analysis would be required to substantiate a significance determination.

The operational phase of the project is anticipated to improve traffic operations, reduce delay, and reduce existing and projected long-term traffic congestion. The project would not increase the operational emissions above existing operations, and would not result in a significant air quality impact if the following criteria are met:

- The project is not capacity-enhancing, and
- The project would improve, or reduce, operational emissions as a result of increased efficiency and decreased delay.

This project could include the use of federal funds, as such, it is assumed that the Federal Transportation Conformity Rule applies. An Air Quality Conformity analysis is required for both of the Build Alternatives.

Construction-related air quality impacts would be similar among Alternatives 1 and 2. Alternative 1 would upgrade signals at intersections and would widen the roadway at intersections and along the entire corridor, whereas Alternative 2 would involve the construction of roundabouts (which could incrementally increase the duration of construction) and would widen the corridor to 6 lanes approaching the roundabouts.

For operational air quality impacts, the removal of signalized intersections and additional travel lanes proposed under Alternative 2 would likely reduce travel times and the associated idling of vehicles. Congestion and traffic flow would also be anticipated to improve with Alternative 2. Operational air quality impacts would be generally similar in magnitude as compared to Alternative 1. Roundabout design and performance would need to be evaluated, and Interagency Consultation (IAC) may need to be conducted to determine if the project is not a Project of Air Quality Concern (POAQC). An Air Quality Conformity Analysis will be prepared during PAED phase or before PS&E phase.

8.13 Noise and Vibration:

Sensitive noise receptors near the project site primarily consist of nearby single-family homes. These homes are located in the High Residential (HR) zone, Suburban Residential (RS-6500), and Medium Residential (RM) zone. Per American Canyon City Code §8.12.070, residential single and double development may not experience sound levels of 60 dBA or greater between 7:00 a.m. and 10:00 p.m., or 50 dBA between 10:00 p.m. and 7:00 a.m. Additionally, multiple residential uses may not experience sound levels of 60 dBA or greater between 7:00 a.m. and 10:00 p.m., or 55 dBA between 10:00 p.m. and 7:00 a.m. Section 8.12.080 of the American Canyon Municipal Code restricts construction noise levels at residential uses to 75 dBA from 7:00 a.m. to 7:00 p.m. and 60 dBA from 7:00 p.m. to 7:00 a.m.

Both alternatives would use similar construction equipment, and construction activity would be comparable in duration. The two alternatives would have similar types of noise impacts at adjacent residences and sensitive receptors.

The project includes addition of a through traffic lane and is considered a Type I project per 23 CFR 772 and therefore requires a traffic noise study. This includes construction noise and construction vibration analyses. The noise analysis will evaluate noise levels during construction at residences in the immediate vicinity of the project site or if there would be proposed travel lanes closer to noise sensitive land uses (homes) than under existing conditions. The other surrounding land uses are commercial or industrial in nature and are not considered sensitive noise receptors.

8.14 Energy and Climate Change:

Construction activities for Alternative 1 would be limited in scope and duration, consisting of improvements to approximately 1.7 mile of roadway and lasting less than a year. In addition, the project does not include construction activities associated with higher greenhouse gas (GHG) emissions such as the use of significant amount of heavy construction equipment, substantial earth-moving activities, or import/export of a significant amount of material. Alternatives 1 and 2 would be similar with respect to the duration of construction and use of heavy equipment. However, quantification of construction emissions is required and should be prepared for the project file. The same emissions analysis can be used for both GHG and Air Quality.

The project is anticipated to improve traffic operations and safety, as well as provide some reduction in traffic delay and existing and projected long-term traffic congestion. Alternative 1 would not increase the operational GHG emissions above existing operations, and would not result in a significant GHG impact if the following criteria are met:

- The project is not capacity-enhancing, and
- The project would improve, or reduce, operational emissions as a result of increased efficiency and decreased delay.

However, as a congestion relief project, a quantitative analysis for operational and construction GHG emissions would be required. Quantification of operational GHG emissions was included as part of the ICE report prepared for the project and should be identified in a Climate Change Memorandum. Fuel consumption estimates for all alternatives would be calculated for each alternative. Measures to reduce GHG emissions will be necessary and should be accounted for in the cost estimate for all project alternatives.

The proposed project site is outside the coastal zone and not in an area subject to sea-level rise. Accordingly, direct impacts to transportation facilities due to projected sea-level rise are not expected. The project location is just outside of the area identified as 'moderate' level of concern for wildfire exposure in the 2025, 2055, and 2085 RCP 8.5 climate change scenario. However, given the recent history of wildfires in Napa and

Sonoma Counties, it is acknowledged that wildfires are an ever-present risk throughout the general project vicinity.

Construction of both alternatives would generate GHG emissions; however, Alternative 2 result in slightly greater construction GHG impacts from inclusion of roundabouts and associated approach lanes. Operational GHG impacts may be reduced under Alternative 2 compared to Alternative 1, as the addition of travel lanes approaching the roundabouts would reduce the travel times of vehicles.

Half of California's GHG emissions are generated by the transportation sector, therefore, reducing Vehicle Miles Traveled (VMT) is considered an effective strategy in pursuing California's long-term climate goals. Projects that are capacity enhancing, such as the addition of through lanes on existing or new highways, would likely lead to a measurable and substantial increase in vehicle travel (OPR 2018). While Alternative 2 improves corridor and intersection operations, it is not anticipated to significantly enhance capacity, as the additional travel lanes would not be implemented along the entirety of the project, only at the approaches to each of the roundabouts. Alternative 1 would not provide any additional capacity and therefore is unlikely to result in an impact related to VMT.

Direct impacts from the environmental effects of climate change (i.e., sea-level rise, wildfire) would be the same for both alternatives.

8.15 Biological Environment:

A public records request was submitted to Caltrans for any recent biological reports prepared for projects within the vicinity of the proposed project site. Two biological reports, prepared in December 2018 and January 2019, respectively, were provided that partially overlap with the project area. The project area is generally developed; however, a previously identified drainage ditch is located within the proposed project footprint. Several special-status species with potential to occur were also identified, including California red-legged frog (CRLF) and western pond turtle. Informal USFWS consultation is assumed to be required. A seasonal work window will likely be required for CRLF avoidance. Alternative 1 may impact a drainage channel or other sensitive resources as some portions of the roadway would need to be widened. Alternative 2 would most likely have a greater impact to habitat and wildlife in the area with construction of the roundabouts and approach travel lanes in comparison to Alternative 1 and may also encroach into a drainage channel and adjacent riparian habitat. A wetland delineation and Natural Environment Study would need to be prepared during PA&ED.

Citations:

Caltrans. 2019. Natural Environment Study Culvert Replacement and Rehabilitation Project. January.

Caltrans. 2018. Natural Environment Study (Minimal Impacts) SR 29 ADA Compliance Upgrades. December.

8.16 Cumulative Impacts:

Cumulative impacts occur as a result of the combined action of multiple projects. Even when an individual project does not have significant impacts, in combination with other related projects, these cumulative effects may be considerable. The cumulative study area is largely built-out or planned for future development projects. Any project-related cumulative impacts resulting from the proposed project, combined with other projects in the vicinity, will be evaluated in the PA&ED phase.

8.17 Context Sensitive Solutions:

Caltrans uses Context Sensitive Solutions (CSS) as the approach to plan, design, construct, maintain, and operate its transportation system. CSS uses innovative and inclusive approaches that integrate and balance community, aesthetic, historic, and environmental values with transportation safety, maintenance, and performance goals and is reached through a collaborative, interdisciplinary approach involving all stakeholders. In order to ensure that CSS is fully integrated into the project development process, careful, imaginative, and early planning is required along with continuous community involvement. As proposed, the project is a Context Sensitive Solution. The Napa Valley Transportation Authority has conducted a previous public outreach process for the project as part of the SR29 Comprehensive Multi-Modal Corridor Plan (CMCP). The City of American Canyon also engaged with the community during preparation of its Gateway Corridor Plan. These efforts acknowledged the importance of developing a project design that meets the community's needs, including evaluation of the project pursuant to CEQA. During the subsequent NEPA environmental phases of the project, appropriate opportunities for public involvement will be provided including various community outreach meetings.

9. Summary Statement for PID

The anticipated NEPA environmental document for the proposed project is a Categorical Exclusion with supporting technical studies. This document level has been selected based on the minimal environmental constraints present in the project study area and the low potential for the project (including all the alternatives) to cause significant environmental impacts with incorporation of standard mitigation commitments. Caltrans would serve as the NEPA lead agency under its assumption of responsibility pursuant to 23 U.S. Code 327. The environmental technical reports and Categorical Exclusion would take approximately 18 months to prepare and process, including time for substantive review by environmental division staff with Caltrans. Any changes in scope will require further project review and reassessment of the level of environmental documentation.

It is anticipated that an Initial Study/Mitigated Negative Declaration (IS/MND) will need to be prepared. The IS/MND would include appropriate mitigation measures that would mitigate any impacts identified in the document. NVTA would serve as the CEQA lead agency for the project, if delegated by Caltrans. It is anticipated that the IS/MND would take approximately 14 months to prepare and process, including time for substantive

review by environmental division staff with Caltrans and Napa County. Any changes in scope will require further project review and reassessment of the level of environmental documentation.

Please refer to Attachment A (PEAR Environmental Studies Checklist) for an overview of which environmental studies would be required during PA&ED, and Attachment B for an estimated schedule. A Mitigation and Compliance Cost Estimate and Cost Considerations are not required to be attached. The PSR-PDS will include (as a separate attachment from the PEAR) cost estimates for both alternatives.

10. Disclaimer

This Preliminary Environmental Analysis Report (PEAR) provides information to support programming of the proposed project. It is not an environmental determination or document. Preliminary analysis, determinations, and estimates of mitigation costs are based on the project description provided in the PID. The estimates and conclusions in the PEAR are approximate and are based on cursory analyses of probable effects. A reevaluation of the PEAR will be needed for changes in project scope or alternatives, or in environmental laws, regulations, or guidelines.

11. List of Preparers

Cultural Resources specialist: Charles Smith	Date: 2/17/22
Biologist: Elizabeth Meisman	Date: 2/17/22
Community Impacts specialist: Charles Smith	Date: 2/17/22
Noise and Vibration specialist: Charles Smith	Date: 2/17/22
Air Quality specialist: Chryss Meier	Date: 2/17/22
Paleontology specialist/liaison: Charles Smith	Date: 2/17/22
Water Quality specialist: Charles Smith	Date: 2/17/22
Hydrology and Floodplain specialist: Charles Smith	Date: 2/17/22
Hazardous Waste/Materials specialist: Charles Smith	Date: 2/17/22
Visual/Aesthetics specialist: Lucas Piper	Date: 2/17/22
Energy and Climate Change specialist: Chryss Meier	Date: 2/17/22
Other: Charles Smith	Date: 2/17/22
PEAR Preparer (Name and Title): Charles Smith, Group Lead	Date: 2/17/22

12. Review and Approval

I confirm that environmental cost, scope, and schedule have been satisfactorily completed and that the PEAR meets all Caltrans requirements. Also, if the project is scoped as a routine EA, complex EA, or EIS, I verify that the HQ DEA Coordinator has concurred in the Class of Action.

Tom Rosevear
Environmental Branch Chief

November 6, 2022
Date

Amani Meligy
Project Manager

November 29,2022
Date

ATTACHMENTS:

Attachment A: PEAR Environmental Studies Checklist
Attachment B: Schedule (Gantt Chart)

Attachment A

PEAR Environmental Studies Checklist

Attachment A: PEAR Environmental Studies Checklist
State Route 29 American Canyon Corridor Project

Environmental Study	Not anticipated	Memo to file	Report required	Risk	Comments
Land Use	☐	☒	☐	L	Enter comments
Wild and Scenic River Consistency	☒	☐	☐	L	Enter comments
Coastal Management Plan	☒	☐	☐	L	Enter comments
Growth	☒	☐	☐	L	Enter comments
Farmlands/Timberlands	☒	☐	☐	L	Enter comments
Community Impacts	☐	☒	☐	L	Enter comments
Community Character and Cohesion	☒	☐	☐	L	Enter comments
Relocations	☒	☐	☐	L	Enter comments
Environmental Justice	☒	☐	☐	L	Enter comments
Utilities/Emergency Services	☒	☐	☐	L	Enter comments
Traffic/Transportation	☐	☒	☐	L	Enter comments
SB743/Induced Travel	☐	☐	☐	L	Enter comments
Visual/Aesthetics	☐	☒	☐	L	Enter comments
Cultural Resources:	☐	☐	☐	M	Enter comments
Archaeological Survey Report	☐	☐	☒	M	Enter comments
Historic Resources Evaluation Report	☐	☐	☒	M	Enter comments
Historic Property Survey Report	☐	☐	☒	M	Enter comments
Historic Resource Compliance Report	☒	☐	☐	L	Enter comments
Section 106 / PRC 5024 & 5024.5	☐	☒	☐	M	Enter comments
Native American Coordination	☐	☒	☐	M	Enter comments
Finding of Effect	☐	☐	☒	M	Enter comments
Data Recovery Plan	☒	☐	☐	L	Enter comments
Memorandum of Agreement	☒	☐	☐	L	Enter comments
Other: Enter other study	☒	☐	☐	L	Enter comments
Hydrology and Floodplain	☒	☐	☐	L	Enter comments
Water Quality and Stormwater Runoff	☐	☒	☐	L	Enter comments
Geology, Soils, Seismic and Topography	☒	☐	☐	L	Enter comments
Paleontology	☒	☐	☐	L	Enter comments
PER	☐	☐	☐	L	Enter comments
PMP	☐	☐	☐	L	Enter comments
Hazardous Waste/Materials:	☐	☐	☐	L	Enter comments
ISA (Additional)	☐	☒	☐	L	Enter comments
PSI	☒	☐	☐	L	Enter comments
Other: Enter other study	☒	☐	☐	L	Enter comments
Air Quality	☐	☐	☒	L	Enter comments

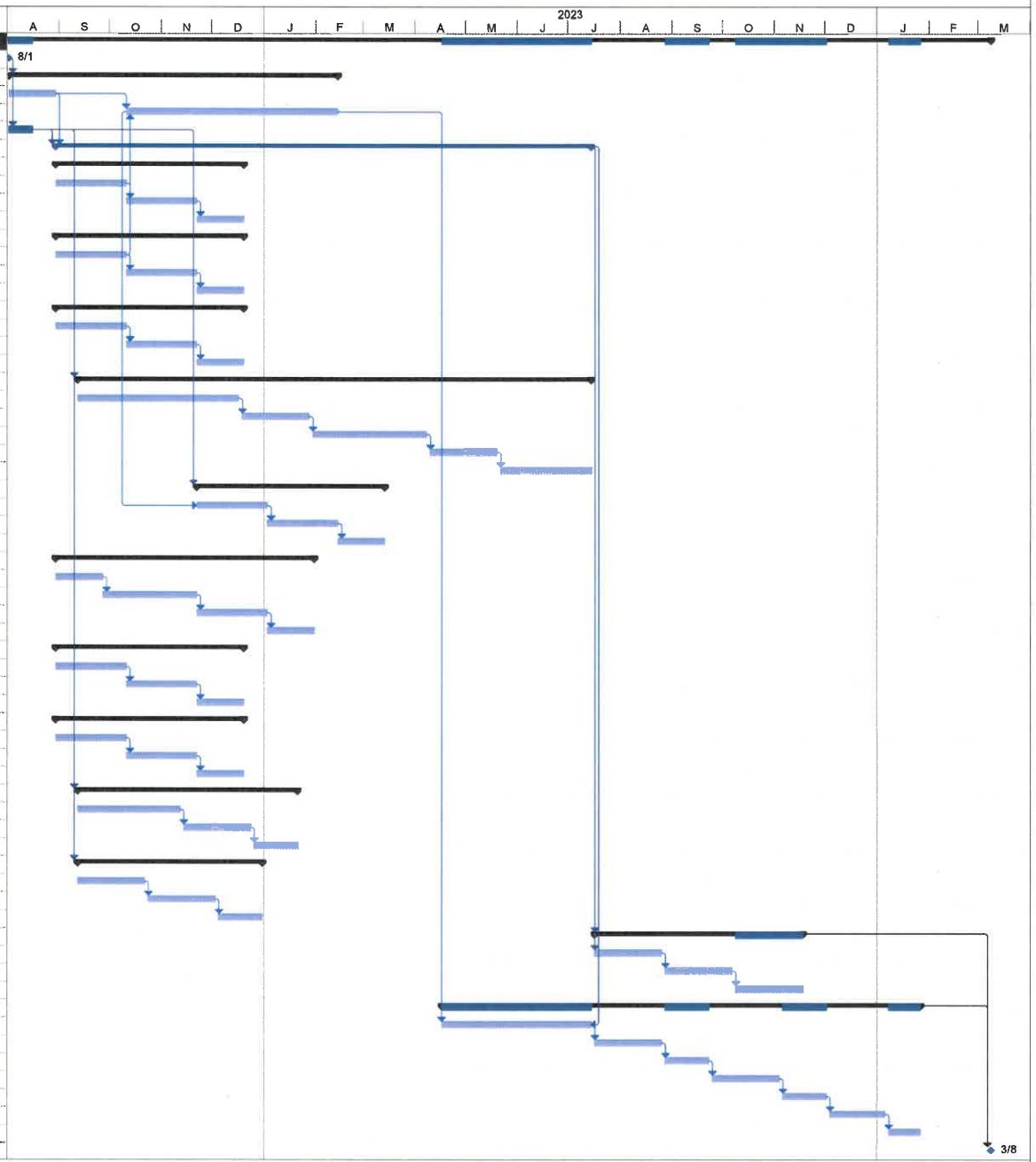
Environmental Study	Not anticipated	Memo to file	Report required	Risk	Comments
Noise and Vibration	☐	☒	☐	L	Enter comments
Energy	☒	☐	☐	L	Enter comments
Climate Change and Sea Level Rise	☒	☐	☐	L	Enter comments
Biological Environment	☐	☒	☐	M	Enter comments
Fish Passage	☒	☐	☐	L	Enter comments
Wildlife Connectivity	☒	☐	☐	L	Enter comments
Natural Environment Study	☐	☐	☒	L	Enter comments
Biological Assessment Section 7:	☒	☐	☐	L	Enter comments
Formal	☐	☐	☐	L	Enter comments
Informal	☐	☐	☐	L	Enter comments
No effect	☐	☐	☐	L	Enter comments
Section 10	☒	☐	☐	L	Enter comments
USFWS Consultation	☐	☒	☐	L	Enter comments
NMFS Consultation	☒	☐	☐	L	Enter comments
Species of Concern (CNPS, USFS, BLM, S, F)	☒	☐	☐	L	Enter comments
Wetlands & Other Waters/Delineation	☐	☒	☐	L	Enter comments
404(b)(1) Alternatives Analysis	☒	☐	☐	L	Enter comments
Invasive Species	☒	☐	☐	L	Enter comments
HMMP	☒	☐	☐	L	Enter comments
CDFW Consistency Determination	☒	☐	☐	L	Enter comments
2081	☒	☐	☐	L	Enter comments
Other: Enter other study	☒	☐	☐	L	Enter comments
Cumulative Impacts	☒	☐	☐	L	Enter comments
Context Sensitive Solutions	☒	☐	☐	L	Enter comments
Section 4(f) Evaluation	☐	☒	☐	L	No Use Memo
Permits:	☐	☐	☐	L	Enter comments
401 Certification Coordination	☐	☒	☐	M	Enter comments
404 Permit Coordination, IP, NWP, or LOP	☒	☐	☐	M	Enter comments
1602 Agreement Coordination	☐	☒	☐	M	Enter comments
Local Coastal Development Permit Coordination	☒	☐	☐	L	Enter comments
State Coastal Development Permit Coordination	☒	☐	☐	L	Enter comments
NPDES Coordination	☒	☐	☐	L	Enter comments
TRPA	☒	☐	☐	L	Enter comments
BCDC	☒	☐	☐	L	Enter comments

Attachment C

Schedule (Gantt Chart)

SR 29 American Canyon
Multimodal Improvement Project
PA&ED Phase

ID	Task Name	Start	Finish	Duration
1	PA&ED Phase Schedule	Mon 8/1/22	Fri 3/8/24	420 days
2	PA&ED Phase Kick-off	Mon 8/1/22	Mon 8/1/22	1 day
3	Preliminary Engineering and Investigations	Tue 8/2/22	Mon 2/13/23	140 days
4	Field Surveys	Tue 8/2/22	Mon 8/29/22	20 days
5	Preliminary Engineering Design	Tue 10/11/22	Mon 2/13/23	90 days
6	Review Environmental Study Request (ESR)	Tue 8/2/22	Mon 8/15/22	10 days
7	Prepare Studies/Reports	Tue 8/30/22	Fri 7/14/23	229 days
8	Land Use and Community Impacts Memorandum (Memo)	Tue 8/30/22	Mon 12/19/22	80 days
9	Draft	Tue 8/30/22	Mon 10/10/22	30 days
10	Agency Review	Tue 10/11/22	Mon 11/21/22	30 days
11	Final	Tue 11/22/22	Mon 12/19/22	20 days
12	Traffic Memo	Tue 8/30/22	Mon 12/19/22	80 days
13	Draft	Tue 8/30/22	Mon 10/10/22	30 days
14	Agency Review	Tue 10/11/22	Mon 11/21/22	30 days
15	Final	Tue 11/22/22	Mon 12/19/22	20 days
16	Visual Impacts Memo	Tue 8/30/22	Mon 12/19/22	80 days
17	Draft	Tue 8/30/22	Mon 10/10/22	30 days
18	Agency Review	Tue 10/11/22	Mon 11/21/22	30 days
19	Final	Tue 11/22/22	Mon 12/19/22	20 days
20	Cultural Reports (HPSR/HRER/ASR)	Mon 9/12/22	Fri 7/14/23	220 days
21	Draft	Mon 9/12/22	Fri 12/16/22	70 days
22	Agency Review	Mon 12/19/22	Fri 1/27/23	30 days
23	Second Draft	Mon 1/30/23	Fri 4/7/23	50 days
24	Agency Review	Mon 4/10/23	Fri 5/19/23	30 days
25	Final	Mon 5/22/23	Fri 7/14/23	40 days
26	Water Quality Memo	Tue 11/22/22	Mon 3/13/23	80 days
27	Draft	Tue 11/22/22	Mon 1/2/23	30 days
28	Agency Review	Tue 1/3/23	Mon 2/13/23	30 days
29	Final	Tue 2/14/23	Mon 3/13/23	20 days
30	Initial Site Investigation	Tue 8/30/22	Mon 1/30/23	110 days
31	Field Investigation	Tue 8/30/22	Mon 9/26/22	20 days
32	Draft	Tue 9/27/22	Mon 11/21/22	40 days
33	Agency Review	Tue 11/22/22	Mon 1/2/23	30 days
34	Final	Tue 1/3/23	Mon 1/30/23	20 days
35	Air Quality Report	Tue 8/30/22	Mon 12/19/22	80 days
36	Draft	Tue 8/30/22	Mon 10/10/22	30 days
37	Agency Review	Tue 10/11/22	Mon 11/21/22	30 days
38	Final	Tue 11/22/22	Mon 12/19/22	20 days
39	Noise & Vibration Memo	Tue 8/30/22	Mon 12/19/22	80 days
40	Draft	Tue 8/30/22	Mon 10/10/22	30 days
41	Agency Review	Tue 10/11/22	Mon 11/21/22	30 days
42	Final	Tue 11/22/22	Mon 12/19/22	20 days
43	Biological Environment Studies/Natural Environment Studies	Mon 9/12/22	Fri 1/20/23	95 days
44	Draft	Mon 9/12/22	Fri 11/11/22	45 days
45	Agency Review	Mon 11/14/22	Fri 12/23/22	30 days
46	Final	Mon 12/26/22	Fri 1/20/23	20 days
47	Section 4(f) Evaluation Memo	Mon 9/12/22	Fri 12/30/22	80 days
48	Draft	Mon 9/12/22	Fri 10/21/22	30 days
49	Agency Review	Mon 10/24/22	Fri 12/2/22	30 days
50	Final	Mon 12/5/22	Fri 12/30/22	20 days
51	Prepare NEPA Environmental Document	Mon 7/17/23	Fri 11/17/23	90 days
52	Draft Categorical Exclusion (CE)	Mon 7/17/23	Fri 8/25/23	30 days
53	Agency Review	Mon 8/28/23	Fri 10/6/23	30 days
54	Final CE	Mon 10/9/23	Fri 11/17/23	30 days
55	Prepare CEQA Environmental Document	Mon 4/17/23	Fri 1/26/24	205 days
56	Admin Draft IS/MND	Mon 4/17/23	Fri 7/14/23	65 days
57	Agency Review	Mon 7/17/23	Fri 8/25/23	30 days
58	Draft IS/MND	Mon 8/28/23	Fri 9/22/23	20 days
59	Agency Review	Mon 9/25/23	Fri 11/3/23	30 days
60	Final Draft IS/MND	Mon 11/6/23	Fri 12/1/23	20 days
61	Public Circulation	Mon 12/4/23	Fri 1/5/24	25 days
62	Final IS/MND	Mon 1/8/24	Fri 1/26/24	15 days
63	Adopt IS/MND	Mon 1/29/24	Fri 3/8/24	30 days



ATTACHMENT H

Life-Cycle Cost Analysis Memo

Technical Memorandum

September 07, 2021

To	State of California, Department of Transportation.	Tel	N/A
Copy to	Napa Valley Transportation Authority	Email	N/A
From	Lindsey Van Parys, PE Michael Pitcock, EIT	Ref. No.	0419000297 04-4Q010K
Subject	Route 29 in American Canyon Multimodal Improvements Project – Life-Cycle Cost Analyses		

1. Introduction

Since January 1, 2007, Life-Cycle Cost Analyses (LCCAs) are required for all project constructing pavement on the California State Highway System. Three LCCA was prepared for the Route 29 in American Canyon Multimodal Improvements Project utilizing Caltrans LCCA Software RealCost Version 2.5.4CA and Caltrans Lifecycle Cost Analysis Procedures Manual, dated August 1, 2013. This memorandum summarizes the results of the LCCAs performed.

2. Background and Assumptions

Utilizing traffic values from the project's Traffic Engineering Performance Assessment (TEPA), Truck Percentages from Caltrans' Traffic Census Truck Traffic (Route 29 Postmile 4.706 Behind), an approximate Traffic Index was calculated, netting a result of 13.0. The native soil R value was assumed to be 20, consistent with the Soscol Junction Interchange Project (EA 04-28120), located at postmile 5.5. Using these assumptions and the local Pavement Climate Region, Low Mountain, two Pavement Alternatives were developed.

Per the LCCA Procedures Manual, Figure 2-1, box 3b, a 40 Yr Flexible Pavement section and a 40 Yr Continuously Reinforced Concrete Pavement (CRCP) section were the selected pavement alternatives The sections were as follows:

This document is in draft form. The contents, including any opinions, conclusions or recommendations contained in, or which may be implied from, this draft document must not be relied upon. GHD reserves the right, at any time, without notice, to modify or retract any part or all of the draft document. To the maximum extent permitted by law, GHD disclaims any responsibility or liability arising from or in connection with this draft document.

Alternative 1: 40 Yr Flexible

0.10' Rubberized Hot Mix Asphalt – Open Graded (Non-Structural Wearing Course)

0.20' Rubberized Hot Mix Asphalt – Gap Graded

1.35' Hot Mix Asphalt (Type A)

0.50' Class 2 Aggregate Base

Subgrade Enhancement Geotextile

Alternative 2: 40 Yr CRCP

0.85' CRCP

0.25' Hot Mix Asphalt (Type A)

0.70' Class 2 Aggregate Subbase

3. LCCA Results

Utilizing Standard LCCA Traffic and Construction Inputs, the following tables summarize the results of the LCCAs.

Table 1 *Project Build Alternative 1*

Total Cost	Alternative 1: 40 Yr Flexible		Alternative 2: 40 Yr CRCP	
	Agency Cost ($1000)	User Cost ($1000)	Agency Cost ($1000)	User Cost ($1000)
Undiscounted Sum	$19,812	$2,798	$13,760	$3,575
Present Value	**$13,956**	**$2,798**	**$13,725**	**$3,575**
EUAC	$631	$127	$621	$162

Table 2 *Project Build Alternative 2*

Total Cost	Alternative 1: 40 Yr Flexible		Alternative 2: 40 Yr CRCP	
	Agency Cost ($1000)	User Cost ($1000)	Agency Cost ($1000)	User Cost ($1000)
Undiscounted Sum	$23,072	$3,498	$16,060	$4,275
Present Value	**$16,313**	**$3,498**	**$16,025**	**$4,275**
EUAC	$738	$158	$725	$193

Table 3 *Project Build Alternative 3 (Rejected Alternative)*

Total Cost	Alternative 1: 40 Yr Flexible		Alternative 2: 40 Yr CRCP	
	Agency Cost ($1000)	User Cost ($1000)	Agency Cost ($1000)	User Cost ($1000)
Undiscounted Sum	$23,052	$2,798	$15,560	$3,575
Present Value	**$16,009**	**$2,798**	**$15,525**	**$3,575**
EUAC	$724	$127	$702	$162

4. Conclusions

The direct output of the LCCA Results show the 40 Yr CRCP section being the most cost-effective alternative over the life span of the pavement. The difference in cost is moderate, varying from 1.7% to 3.1%. However, consistently, the user cost of the CRCP significantly exceeds the user cost of the HMA, ranging from 22% to 28% higher costs. While the LCCA Procedures Manual states that CRCP alternative should be the preferred alternative, differences in unit prices and the lack of stage construction analysis may negate all savings shown in this analyses. Additionally, pavement costs associated to the flexible pavement were relatively conservative, eliminating overlay areas on the mainline north of American Canyon Road. Future information, obtained in future stages, may indicate that widening and overlay strategies may be appropriate, further reducing the flexible pavement costs. Due to these factors, it is recommended that 40 Yr flexible pavement be considered as the preferred alternative proceeding into the next stage of construction.

Attachments:

A. Alternative 1 RealCost Output

B. Alternative 2 RealCost Output

C. Alternative 3 RealCost Output

ALTERNATIVE 1

RealCost Input Data

1. Economic Variables	
Value of Time for Passenger Cars ($/hour)	$13.00
Value of Time for Single Unit Trucks ($/hour)	$29.60
Value of Time for Combination Trucks ($/hour)	$29.60

2. Analysis Options	
Include User Costs in Analysis	Yes
Include User Cost Remaining Service Life Value	Yes
Use Differential User Costs	Yes
User Cost Computation Method	Calculated
Include Agency Cost Remaining Service Life Value	Yes
Traffic Direction	Both
Analysis Period (Years)	55
Beginning of Analysis Period	2025
Discount Rate (%)	4.0
Number of Alternatives	2

3. Project Details and Quantity Calculations	
State Route	29
Project Type	New/Reconstruction/Widen
Project Name	American Canyon Corridor Improvements Project
Maintenance Service Level	1
Local Region	
County	NAPA 0.7/2.1
Climate Region	Low Mountain
Analyzed By	BNI
Mileposts	
Begin	
End	
Length of Project (miles)	1.40
Comments	Limits are conservative

4. Traffic Data	
AADT Construction Year (total for both directions)	38,800
Cars as Percentage of AADT (%)	93.0
Single Unit Trucks as Percentage of AADT (%)	3.0
Combination Trucks as Percentage of AADT (%)	4.0
Annual Growth Rate of Traffic (%)	0.8
Speed Limit Under Normal Operating Conditions (mph)	55
No of Lanes in Each Direction During Normal Conditions	2
Free Flow Capacity (vphpl)	2019
Queue Dissipation Capacity (vphpl)	1700
Maximum AADT (total for both directions)	53,773
Maximum Queue Length (miles)	2
5. Maintenance and Rehabilitation Sequence	
Alternative 1	
Final Pavement Surface	
Design Life	
Activity 1 Name	NEW/RECONST RHMA W/RHMA-O (40YR)
Activity 1 Year of Action	2025
Activity 1 Annual Maintenance Cost ($1000)	21.84
Activity 1 Activity Service Life (Year)	40
Activity 2 Name	CAPM RHMA W/ RHMA-O

Activity 2 Year of Action	2065
Activity 2 Annual Maintenance Cost ($1000)	3.92
Activity 2 Activity Service Life (Year)	8
Activity 3 Name	REHAB RHMA W/ RHMA-O (20YR)
Activity 3 Year of Action	2073
Activity 3 Annual Maintenance Cost ($1000)	22.96
Activity 3 Activity Service Life (Year)	24
Activity 4 Name	CAPM HMA
Activity 4 Year of Action	2097
Activity 4 Annual Maintenance Cost ($1000)	8.8
Activity 4 Activity Service Life (Year)	5
Activity 5 Name	REHAB HMA (20YR)
Activity 5 Year of Action	2102
Activity 5 Annual Maintenance Cost ($1000)	23.2
Activity 5 Activity Service Life (Year)	5
Activity 6 Name	
Activity 6 Year of Action	2107
Activity 6 Annual Maintenance Cost ($1000)	0
Activity 6 Activity Service Life (Year)	0
Alternative 2	
Final Pavement Surface	
Design Life	
Activity 1 Name	NEW/RECONST CRCP (40YR)
Activity 1 Year of Action	2025
Activity 1 Annual Maintenance Cost ($1000)	1.12
Activity 1 Activity Service Life (Year)	55.0
Activity 2 Name	CAPM (CPR C)
Activity 2 Year of Action	2080
Activity 2 Annual Maintenance Cost ($1000)	24
Activity 2 Activity Service Life (Year)	5.0
Activity 3 Name	CAPM (CPR B)
Activity 3 Year of Action	2085
Activity 3 Annual Maintenance Cost ($1000)	12
Activity 3 Activity Service Life (Year)	10
Activity 4 Name	
Activity 4 Year of Action	2095
Activity 4 Annual Maintenance Cost ($1000)	0
Activity 4 Activity Service Life (Year)	0
Activity 5 Name	
Activity 5 Year of Action	2095
Activity 5 Annual Maintenance Cost ($1000)	1
Activity 5 Activity Service Life (Year)	0
Activity 6 Name	
Activity 6 Year of Action	2095
Activity 6 Annual Maintenance Cost ($1000)	0
Activity 6 Activity Service Life (Year)	0
Alternative 3	
Final Pavement Surface	
Design Life	
Activity 1 Name	NEW/RECONST HMA W/RHMA (20YR)
Activity 1 Year of Action	2025
Activity 1 Annual Maintenance Cost ($1000)	0
Activity 1 Activity Service Life (Year)	23
Activity 2 Name	CAPM HMA W/ RHMA
Activity 2 Year of Action	2048
Activity 2 Annual Maintenance Cost ($1000)	0
Activity 2 Activity Service Life (Year)	10
Activity 3 Name	REHAB HMA W/ RHMA (20YR)

Activity 3 Year of Action	2058
Activity 3 Annual Maintenance Cost ($1000)	0
Activity 3 Activity Service Life (Year)	23
Activity 4 Name	CAPM (PR A)
Activity 4 Year of Action	2081
Activity 4 Annual Maintenance Cost ($1000)	5
Activity 4 Activity Service Life (Year)	10
Activity 5 Name	
Activity 5 Year of Action	2091
Activity 5 Annual Maintenance Cost ($1000)	0
Activity 5 Activity Service Life (Year)	0
Activity 6 Name	
Activity 6 Year of Action	2091
Activity 6 Annual Maintenance Cost ($1000)	0
Activity 6 Activity Service Life (Year)	0
Alternative 4	
Final Pavement Surface	
Design Life	
Activity 1 Name	NEW/RECONST CRCP (20YR)
Activity 1 Year of Action	2025
Activity 1 Annual Maintenance Cost ($1000)	0
Activity 1 Activity Service Life (Year)	30
Activity 2 Name	CAPM (PR C)
Activity 2 Year of Action	2055
Activity 2 Annual Maintenance Cost ($1000)	0
Activity 2 Activity Service Life (Year)	5
Activity 3 Name	CAPM (PR B)
Activity 3 Year of Action	2060
Activity 3 Annual Maintenance Cost ($1000)	0
Activity 3 Activity Service Life (Year)	10
Activity 4 Name	CAPM (PR A)
Activity 4 Year of Action	2070
Activity 4 Annual Maintenance Cost ($1000)	0
Activity 4 Activity Service Life (Year)	10
Activity 5 Name	20
Activity 5 Year of Action	2080
Activity 5 Annual Maintenance Cost ($1000)	0
Activity 5 Activity Service Life (Year)	0
Activity 6 Name	
Activity 6 Year of Action	2080
Activity 6 Annual Maintenance Cost ($1000)	0
Activity 6 Activity Service Life (Year)	0

Alternative 1	40 Year HMA
Number of Activities	3

Activity 1	NEW/RECONST RHMA W/RHMA-O (40YR)
Agency Construction Cost ($1000)	$12,000.00
User Work Zone Costs ($1000)	
Work Zone Duration (days)	360
No of Lanes Open in Each Direction During Work Zone	1
Activity Service Life (years)	40.0
Activity Structural Life (years)	
Maintenance Frequency (years)	1
Agency Maintenance Cost ($1000)	21.84
Work Zone Length (miles)	1.50
Work Zone Speed Limit (mph)	45
Work Zone Capacity (vphpl)	1510

Traffic Hourly Distribution	Weekday Single-Peak	
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)		
Inbound	Start	End
First period of lane closure	0	24
Second period of lane closure		
Third period of lane closure		
Outbound	Start	End
First period of lane closure	0	24
Second period of lane closure		
Third period of lane closure		

Activity 2	CAPM RHMA W/ RHMA-O	
Agency Construction Cost ($1000)	$4,062.00	
User Work Zone Costs ($1000)		
Work Zone Duration (days)	10	
No of Lanes Open in Each Direction During Work Zone	1	
Activity Service Life (years)	8.0	
Activity Structural Life (years)		
Maintenance Frequency (years)	1	
Agency Maintenance Cost ($1000)	3.92	
Work Zone Length (miles)	1.50	
Work Zone Speed Limit (mph)	45	
Work Zone Capacity (vphpl)	1510	
Traffic Hourly Distribution	Weekday Single-Peak	
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)		
Inbound	Start	End
First period of lane closure		
Second period of lane closure		
Third period of lane closure		
Outbound	Start	End
First period of lane closure		
Second period of lane closure		
Third period of lane closure		

Activity 3	REHAB RHMA W/ RHMA-O (20YR)	
Agency Construction Cost ($1000)	$9,371.00	
User Work Zone Costs ($1000)		
Work Zone Duration (days)	80	
No of Lanes Open in Each Direction During Work Zone	1	
Activity Service Life (years)	24.0	
Activity Structural Life (years)		
Maintenance Frequency (years)	1	
Agency Maintenance Cost ($1000)	22.96	
Work Zone Length (miles)	1.50	
Work Zone Speed Limit (mph)	45	
Work Zone Capacity (vphpl)	1510	
Traffic Hourly Distribution	Weekday Single-Peak	
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)		
Inbound	Start	End
First period of lane closure		
Second period of lane closure		
Third period of lane closure		
Outbound	Start	End
First period of lane closure		
Second period of lane closure		
Third period of lane closure		

Alternative 2	40 Yr CRCP
Number of Activities	1

Activity 1	NEW/RECONST CRCP (40YR)	
Agency Construction Cost ($1000)	$13,700.00	
User Work Zone Costs ($1000)		
Work Zone Duration (days)	460	
No of Lanes Open in Each Direction During Work Zone	1	
Activity Service Life (years)	55.0	
Activity Structural Life (years)		
Maintenance Frequency (years)	1	
Agency Maintenance Cost ($1000)	1.12	
Work Zone Length (miles)	1.50	
Work Zone Speed Limit (mph)	45	
Work Zone Capacity (vphpl)	1510	
Traffic Hourly Distribution	Weekday Single-Peak	
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)		
Inbound	Start	End
First period of lane closure	0	24
Second period of lane closure		
Third period of lane closure		
Outbound	Start	End
First period of lane closure	0	24
Second period of lane closure		
Third period of lane closure		

Deterministic Results

Total Cost	Alternative 1: 40 Year HMA		Alternative 2: 40 Yr CRCP	
	Agency Cost ($1000)	User Cost ($1000)	Agency Cost ($1000)	User Cost ($1000)
Undiscounted Sum	$19,812	$2,798	$13,760	$3,575
Present Value	$13,956	$2,798	$13,725	$3,575
EUAC	$631	$127	$621	$162

ALTERNATIVE 2

RealCost Input Data

1. Economic Variables	
Value of Time for Passenger Cars ($/hour)	$13.00
Value of Time for Single Unit Trucks ($/hour)	$29.60
Value of Time for Combination Trucks ($/hour)	$29.60

2. Analysis Options	
Include User Costs in Analysis	Yes
Include User Cost Remaining Service Life Value	Yes
Use Differential User Costs	Yes
User Cost Computation Method	Calculated
Include Agency Cost Remaining Service Life Value	Yes
Traffic Direction	Both
Analysis Period (Years)	55
Beginning of Analysis Period	2025
Discount Rate (%)	4.0
Number of Alternatives	2

3. Project Details and Quantity Calculations	
State Route	29
Project Type	New/Reconstruction/Widen
Project Name	American Canyon Corridor Improvements Project
Maintenance Service Level	1
Local Region	
County	NAPA 0.7/2.1
Climate Region	Low Mountain
Analyzed By	MCP
Mileposts	
Begin	
End	
Length of Project (miles)	1.40
Comments	Limits are conservative

4. Traffic Data	
AADT Construction Year (total for both directions)	38,800
Cars as Percentage of AADT (%)	93.0
Single Unit Trucks as Percentage of AADT (%)	3.0
Combination Trucks as Percentage of AADT (%)	4.0
Annual Growth Rate of Traffic (%)	0.8
Speed Limit Under Normal Operating Conditions (mph)	55
No of Lanes in Each Direction During Normal Conditions	2
Free Flow Capacity (vphpl)	2019
Queue Dissipation Capacity (vphpl)	1700
Maximum AADT (total for both directions)	53,773
Maximum Queue Length (miles)	2
5. Maintenance and Rehabilitation Sequence	
Alternative 1	
Final Pavement Surface	
Design Life	
Activity 1 Name	NEW/RECONST RHMA W/RHMA-O (40YR)
Activity 1 Year of Action	2025
Activity 1 Annual Maintenance Cost ($1000)	21.84
Activity 1 Activity Service Life (Year)	40
Activity 2 Name	CAPM RHMA W/ RHMA-O

Activity 2 Year of Action	2065
Activity 2 Annual Maintenance Cost ($1000)	3.92
Activity 2 Activity Service Life (Year)	8
Activity 3 Name	REHAB RHMA W/ RHMA-O (20YR)
Activity 3 Year of Action	2073
Activity 3 Annual Maintenance Cost ($1000)	22.96
Activity 3 Activity Service Life (Year)	24
Activity 4 Name	CAPM HMA
Activity 4 Year of Action	2097
Activity 4 Annual Maintenance Cost ($1000)	8.8
Activity 4 Activity Service Life (Year)	5
Activity 5 Name	REHAB HMA (20YR)
Activity 5 Year of Action	2102
Activity 5 Annual Maintenance Cost ($1000)	23.2
Activity 5 Activity Service Life (Year)	5
Activity 6 Name	
Activity 6 Year of Action	2107
Activity 6 Annual Maintenance Cost ($1000)	0
Activity 6 Activity Service Life (Year)	0
Alternative 2	
Final Pavement Surface	
Design Life	
Activity 1 Name	NEW/RECONST CRCP (40YR)
Activity 1 Year of Action	2025
Activity 1 Annual Maintenance Cost ($1000)	1.12
Activity 1 Activity Service Life (Year)	55.0
Activity 2 Name	CAPM (CPR C)
Activity 2 Year of Action	2080
Activity 2 Annual Maintenance Cost ($1000)	24
Activity 2 Activity Service Life (Year)	5.0
Activity 3 Name	CAPM (CPR B)
Activity 3 Year of Action	2085
Activity 3 Annual Maintenance Cost ($1000)	12
Activity 3 Activity Service Life (Year)	10
Activity 4 Name	
Activity 4 Year of Action	2095
Activity 4 Annual Maintenance Cost ($1000)	0
Activity 4 Activity Service Life (Year)	0
Activity 5 Name	
Activity 5 Year of Action	2095
Activity 5 Annual Maintenance Cost ($1000)	1
Activity 5 Activity Service Life (Year)	0
Activity 6 Name	
Activity 6 Year of Action	2095
Activity 6 Annual Maintenance Cost ($1000)	0
Activity 6 Activity Service Life (Year)	0
Alternative 3	
Final Pavement Surface	
Design Life	
Activity 1 Name	NEW/RECONST HMA W/RHMA (20YR)
Activity 1 Year of Action	2025
Activity 1 Annual Maintenance Cost ($1000)	0
Activity 1 Activity Service Life (Year)	23
Activity 2 Name	CAPM HMA W/ RHMA
Activity 2 Year of Action	2048
Activity 2 Annual Maintenance Cost ($1000)	0
Activity 2 Activity Service Life (Year)	10
Activity 3 Name	REHAB HMA W/ RHMA (20YR)

Activity 3 Year of Action	2058
Activity 3 Annual Maintenance Cost ($1000)	0
Activity 3 Activity Service Life (Year)	23
Activity 4 Name	CAPM (PR A)
Activity 4 Year of Action	2081
Activity 4 Annual Maintenance Cost ($1000)	5
Activity 4 Activity Service Life (Year)	10
Activity 5 Name	
Activity 5 Year of Action	2091
Activity 5 Annual Maintenance Cost ($1000)	0
Activity 5 Activity Service Life (Year)	0
Activity 6 Name	
Activity 6 Year of Action	2091
Activity 6 Annual Maintenance Cost ($1000)	0
Activity 6 Activity Service Life (Year)	0
Alternative 4	
Final Pavement Surface	
Design Life	
Activity 1 Name	NEW/RECONST CRCP (20YR)
Activity 1 Year of Action	2025
Activity 1 Annual Maintenance Cost ($1000)	0
Activity 1 Activity Service Life (Year)	30
Activity 2 Name	CAPM (PR C)
Activity 2 Year of Action	2055
Activity 2 Annual Maintenance Cost ($1000)	0
Activity 2 Activity Service Life (Year)	5
Activity 3 Name	CAPM (PR B)
Activity 3 Year of Action	2060
Activity 3 Annual Maintenance Cost ($1000)	0
Activity 3 Activity Service Life (Year)	10
Activity 4 Name	CAPM (PR A)
Activity 4 Year of Action	2070
Activity 4 Annual Maintenance Cost ($1000)	0
Activity 4 Activity Service Life (Year)	10
Activity 5 Name	20
Activity 5 Year of Action	2080
Activity 5 Annual Maintenance Cost ($1000)	0
Activity 5 Activity Service Life (Year)	0
Activity 6 Name	
Activity 6 Year of Action	2080
Activity 6 Annual Maintenance Cost ($1000)	0
Activity 6 Activity Service Life (Year)	0

Alternative 1	40 Year HMA
Number of Activities	3

Activity 1	NEW/RECONST RHMA W/RHMA-O (40YR)
Agency Construction Cost ($1000)	$14,100.00
User Work Zone Costs ($1000)	
Work Zone Duration (days)	450
No of Lanes Open in Each Direction During Work Zone	1
Activity Service Life (years)	40.0
Activity Structural Life (years)	
Maintenance Frequency (years)	1
Agency Maintenance Cost ($1000)	21.84
Work Zone Length (miles)	1.50
Work Zone Speed Limit (mph)	45
Work Zone Capacity (vphpl)	1510

Traffic Hourly Distribution	Weekday Single-Peak	
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)		
Inbound	Start	End
First period of lane closure	0	24
Second period of lane closure		
Third period of lane closure		
Outbound	Start	End
First period of lane closure	0	24
Second period of lane closure		
Third period of lane closure		

Activity 2	CAPM RHMA W/ RHMA-O	
Agency Construction Cost ($1000)	$4,729.00	
User Work Zone Costs ($1000)		
Work Zone Duration (days)	10	
No of Lanes Open in Each Direction During Work Zone	1	
Activity Service Life (years)	8.0	
Activity Structural Life (years)		
Maintenance Frequency (years)	1	
Agency Maintenance Cost ($1000)	3.92	
Work Zone Length (miles)	1.50	
Work Zone Speed Limit (mph)	45	
Work Zone Capacity (vphpl)	1510	
Traffic Hourly Distribution	Weekday Single-Peak	
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)		
Inbound	Start	End
First period of lane closure		
Second period of lane closure		
Third period of lane closure		
Outbound	Start	End
First period of lane closure		
Second period of lane closure		
Third period of lane closure		

Activity 3	REHAB RHMA W/ RHMA-O (20YR)	
Agency Construction Cost ($1000)	$11,059.00	
User Work Zone Costs ($1000)		
Work Zone Duration (days)	80	
No of Lanes Open in Each Direction During Work Zone	1	
Activity Service Life (years)	24.0	
Activity Structural Life (years)		
Maintenance Frequency (years)	1	
Agency Maintenance Cost ($1000)	22.96	
Work Zone Length (miles)	1.50	
Work Zone Speed Limit (mph)	45	
Work Zone Capacity (vphpl)	1510	
Traffic Hourly Distribution	Weekday Single-Peak	
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)		
Inbound	Start	End
First period of lane closure		
Second period of lane closure		
Third period of lane closure		
Outbound	Start	End
First period of lane closure		
Second period of lane closure		
Third period of lane closure		

Alternative 2	40 Yr CRCP
Number of Activities	1

Activity 1	NEW/RECONST CRCP (40YR)	
Agency Construction Cost ($1000)	$16,000.00	
User Work Zone Costs ($1000)		
Work Zone Duration (days)	550	
No of Lanes Open in Each Direction During Work Zone	1	
Activity Service Life (years)	55.0	
Activity Structural Life (years)		
Maintenance Frequency (years)	1	
Agency Maintenance Cost ($1000)	1.12	
Work Zone Length (miles)	1.50	
Work Zone Speed Limit (mph)	45	
Work Zone Capacity (vphpl)	1510	
Traffic Hourly Distribution	Weekday Single-Peak	
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)		
Inbound	Start	End
First period of lane closure	0	24
Second period of lane closure		
Third period of lane closure		
Outbound	Start	End
First period of lane closure	0	24
Second period of lane closure		
Third period of lane closure		

Deterministic Results

Total Cost	Alternative 1: 40 Year HMA		Alternative 2: 40 Yr CRCP	
	Agency Cost ($1000)	User Cost ($1000)	Agency Cost ($1000)	User Cost ($1000)
Undiscounted Sum	$23,072	$3,498	$16,060	$4,275
Present Value	$16,313	$3,498	$16,025	$4,275
EUAC	$738	$158	$725	$193

ALTERNATIVE 3

RealCost Input Data

1. Economic Variables	
Value of Time for Passenger Cars ($/hour)	$13.00
Value of Time for Single Unit Trucks ($/hour)	$29.60
Value of Time for Combination Trucks ($/hour)	$29.60

2. Analysis Options	
Include User Costs in Analysis	Yes
Include User Cost Remaining Service Life Value	Yes
Use Differential User Costs	Yes
User Cost Computation Method	Calculated
Include Agency Cost Remaining Service Life Value	Yes
Traffic Direction	Both
Analysis Period (Years)	55
Beginning of Analysis Period	2025
Discount Rate (%)	4.0
Number of Alternatives	2

3. Project Details and Quantity Calculations	
State Route	29
Project Type	New/Reconstruction/Widen
Project Name	American Canyon Corridor Improvements Project
Maintenance Service Level	1
Local Region	
County	NAPA 0.7/2.1
Climate Region	Low Mountain
Analyzed By	MCP
Mileposts	
Begin	
End	
Length of Project (miles)	1.40
Comments	Limits are conservative

4. Traffic Data	
AADT Construction Year (total for both directions)	38,800
Cars as Percentage of AADT (%)	93.0
Single Unit Trucks as Percentage of AADT (%)	3.0
Combination Trucks as Percentage of AADT (%)	4.0
Annual Growth Rate of Traffic (%)	0.8
Speed Limit Under Normal Operating Conditions (mph)	55
No of Lanes in Each Direction During Normal Conditions	2
Free Flow Capacity (vphpl)	2019
Queue Dissipation Capacity (vphpl)	1700
Maximum AADT (total for both directions)	53,773
Maximum Queue Length (miles)	2
5. Maintenance and Rehabilitation Sequence	
Alternative 1	
Final Pavement Surface	
Design Life	
Activity 1 Name	NEW/RECONST RHMA W/RHMA-O (40YR)
Activity 1 Year of Action	2025
Activity 1 Annual Maintenance Cost ($1000)	21.84
Activity 1 Activity Service Life (Year)	40
Activity 2 Name	CAPM RHMA W/ RHMA-O

Activity 2 Year of Action	2065
Activity 2 Annual Maintenance Cost ($1000)	3.92
Activity 2 Activity Service Life (Year)	8
Activity 3 Name	REHAB RHMA W/ RHMA-O (20YR)
Activity 3 Year of Action	2073
Activity 3 Annual Maintenance Cost ($1000)	22.96
Activity 3 Activity Service Life (Year)	24
Activity 4 Name	CAPM HMA
Activity 4 Year of Action	2097
Activity 4 Annual Maintenance Cost ($1000)	8.8
Activity 4 Activity Service Life (Year)	5
Activity 5 Name	REHAB HMA (20YR)
Activity 5 Year of Action	2102
Activity 5 Annual Maintenance Cost ($1000)	23.2
Activity 5 Activity Service Life (Year)	5
Activity 6 Name	
Activity 6 Year of Action	2107
Activity 6 Annual Maintenance Cost ($1000)	0
Activity 6 Activity Service Life (Year)	0
Alternative 2	
Final Pavement Surface	
Design Life	
Activity 1 Name	NEW/RECONST CRCP (40YR)
Activity 1 Year of Action	2025
Activity 1 Annual Maintenance Cost ($1000)	1.12
Activity 1 Activity Service Life (Year)	55.0
Activity 2 Name	CAPM (CPR C)
Activity 2 Year of Action	2080
Activity 2 Annual Maintenance Cost ($1000)	24
Activity 2 Activity Service Life (Year)	5.0
Activity 3 Name	CAPM (CPR B)
Activity 3 Year of Action	2085
Activity 3 Annual Maintenance Cost ($1000)	12
Activity 3 Activity Service Life (Year)	10
Activity 4 Name	
Activity 4 Year of Action	2095
Activity 4 Annual Maintenance Cost ($1000)	0
Activity 4 Activity Service Life (Year)	0
Activity 5 Name	
Activity 5 Year of Action	2095
Activity 5 Annual Maintenance Cost ($1000)	1
Activity 5 Activity Service Life (Year)	0
Activity 6 Name	
Activity 6 Year of Action	2095
Activity 6 Annual Maintenance Cost ($1000)	0
Activity 6 Activity Service Life (Year)	0
Alternative 3	
Final Pavement Surface	
Design Life	
Activity 1 Name	NEW/RECONST HMA W/RHMA (20YR)
Activity 1 Year of Action	2025
Activity 1 Annual Maintenance Cost ($1000)	0
Activity 1 Activity Service Life (Year)	23
Activity 2 Name	CAPM HMA W/ RHMA
Activity 2 Year of Action	2048
Activity 2 Annual Maintenance Cost ($1000)	0
Activity 2 Activity Service Life (Year)	10
Activity 3 Name	REHAB HMA W/ RHMA (20YR)

Activity 3 Year of Action	2058
Activity 3 Annual Maintenance Cost ($1000)	0
Activity 3 Activity Service Life (Year)	23
Activity 4 Name	CAPM (PR A)
Activity 4 Year of Action	2081
Activity 4 Annual Maintenance Cost ($1000)	5
Activity 4 Activity Service Life (Year)	10
Activity 5 Name	
Activity 5 Year of Action	2091
Activity 5 Annual Maintenance Cost ($1000)	0
Activity 5 Activity Service Life (Year)	0
Activity 6 Name	
Activity 6 Year of Action	2091
Activity 6 Annual Maintenance Cost ($1000)	0
Activity 6 Activity Service Life (Year)	0
Alternative 4	
Final Pavement Surface	
Design Life	
Activity 1 Name	NEW/RECONST CRCP (20YR)
Activity 1 Year of Action	2025
Activity 1 Annual Maintenance Cost ($1000)	0
Activity 1 Activity Service Life (Year)	30
Activity 2 Name	CAPM (PR C)
Activity 2 Year of Action	2055
Activity 2 Annual Maintenance Cost ($1000)	0
Activity 2 Activity Service Life (Year)	5
Activity 3 Name	CAPM (PR B)
Activity 3 Year of Action	2060
Activity 3 Annual Maintenance Cost ($1000)	0
Activity 3 Activity Service Life (Year)	10
Activity 4 Name	CAPM (PR A)
Activity 4 Year of Action	2070
Activity 4 Annual Maintenance Cost ($1000)	0
Activity 4 Activity Service Life (Year)	10
Activity 5 Name	20
Activity 5 Year of Action	2080
Activity 5 Annual Maintenance Cost ($1000)	0
Activity 5 Activity Service Life (Year)	0
Activity 6 Name	
Activity 6 Year of Action	2080
Activity 6 Annual Maintenance Cost ($1000)	0
Activity 6 Activity Service Life (Year)	0

Alternative 1	40 Year HMA
Number of Activities	3

Activity 1	NEW/RECONST RHMA W/RHMA-O (40YR)
Agency Construction Cost ($1000)	$13,700.00
User Work Zone Costs ($1000)	
Work Zone Duration (days)	360
No of Lanes Open in Each Direction During Work Zone	1
Activity Service Life (years)	40.0
Activity Structural Life (years)	
Maintenance Frequency (years)	1
Agency Maintenance Cost ($1000)	21.84
Work Zone Length (miles)	1.50
Work Zone Speed Limit (mph)	45
Work Zone Capacity (vphpl)	1510

Traffic Hourly Distribution	Weekday Single-Peak	
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)		
Inbound	Start	End
First period of lane closure	0	24
Second period of lane closure		
Third period of lane closure		
Outbound	Start	End
First period of lane closure	0	24
Second period of lane closure		
Third period of lane closure		

Activity 2	CAPM RHMA W/ RHMA-O	
Agency Construction Cost ($1000)	$4,591.00	
User Work Zone Costs ($1000)		
Work Zone Duration (days)	10	
No of Lanes Open in Each Direction During Work Zone	1	
Activity Service Life (years)	8.0	
Activity Structural Life (years)		
Maintenance Frequency (years)	1	
Agency Maintenance Cost ($1000)	3.92	
Work Zone Length (miles)	1.50	
Work Zone Speed Limit (mph)	45	
Work Zone Capacity (vphpl)	1510	
Traffic Hourly Distribution	Weekday Single-Peak	
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)		
Inbound	Start	End
First period of lane closure		
Second period of lane closure		
Third period of lane closure		
Outbound	Start	End
First period of lane closure		
Second period of lane closure		
Third period of lane closure		

Activity 3	REHAB RHMA W/ RHMA-O (20YR)	
Agency Construction Cost ($1000)	$12,836.00	
User Work Zone Costs ($1000)		
Work Zone Duration (days)	80	
No of Lanes Open in Each Direction During Work Zone	1	
Activity Service Life (years)	24.0	
Activity Structural Life (years)		
Maintenance Frequency (years)	1	
Agency Maintenance Cost ($1000)	22.96	
Work Zone Length (miles)	1.50	
Work Zone Speed Limit (mph)	45	
Work Zone Capacity (vphpl)	1510	
Traffic Hourly Distribution	Weekday Single-Peak	
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)		
Inbound	Start	End
First period of lane closure		
Second period of lane closure		
Third period of lane closure		
Outbound	Start	End
First period of lane closure		
Second period of lane closure		
Third period of lane closure		

Alternative 2	40 Yr CRCP
Number of Activities	1

Activity 1	NEW/RECONST CRCP (40YR)	
Agency Construction Cost ($1000)	$15,500.00	
User Work Zone Costs ($1000)		
Work Zone Duration (days)	460	
No of Lanes Open in Each Direction During Work Zone	1	
Activity Service Life (years)	55.0	
Activity Structural Life (years)		
Maintenance Frequency (years)	1	
Agency Maintenance Cost ($1000)	1.12	
Work Zone Length (miles)	1.50	
Work Zone Speed Limit (mph)	45	
Work Zone Capacity (vphpl)	1510	
Traffic Hourly Distribution	Weekday Single-Peak	
Time of Day of Lane Closures (use whole numbers based on a 24-hour clock)		
Inbound	Start	End
First period of lane closure	0	24
Second period of lane closure		
Third period of lane closure		
Outbound	Start	End
First period of lane closure	0	24
Second period of lane closure		
Third period of lane closure		

Deterministic Results

Total Cost	Alternative 1: 40 Year HMA		Alternative 2: 40 Yr CRCP	
	Agency Cost ($1000)	User Cost ($1000)	Agency Cost ($1000)	User Cost ($1000)
Undiscounted Sum	$23,052	$2,798	$15,560	$3,575
Present Value	$16,009	$2,798	$15,525	$3,575
EUAC	$724	$127	$702	$162

ATTACHMENT I

Risk Register

RISK REGISTER LEVEL	3	PROJECT NAME	SR29 in American Canyon Multimodal Improvements Project		DIST-EA	04-4Q010 (04190002 97)	Project Manager		Amani Meligy		RISK MANAGER			Lindsey Van Parys				TOTAL COST (Capital +Support)			$77,274,800.00
PROJECT PHASE	PID	PDT MEMBERS			RISK ASSESSMENT INFORMATION													TOTAL DAYS (Construction + Initial review (30 days)+ Closeout (60 days))			450
Risk Identification					Probability		Cost Impact ($)				Time Impact (days)			Phase	Capital / Support	Individual Risk		Risk Response			
Status	ID #	Category	Title	Risk Statement	Current Status/ Assumptions	Prob Low	Prob High	Cost Low	Cost Most likely	Cost High	Cost Probable	Low	Most likely	High	Time Probable	ENG/ CON	C/S	Rationale	Strategy	Response Actions	Risk Owner	Updated
Active	1	ROW	Delayed Property Access	If the permits to enter into private properties are required for conducting the technical studies for the project are delayed or no permission is given by the property owners, the required field surveys could be delayed or prevented, resulting in a delay to the project schedule.	It is assumed that access to properties will be obtained in a timely manner.	11	30	$0	$500,000	$1,000,000	$102,500	30	60	90	42	ENG	S	This risk is used to quantify costs attributed to a delay in schedule due to property owners denying access to private parcels. Based on environmental team input	Mitigate	Begin discussions with property owners early and identify reasons for delay or denial and work with engineering and environmental leads to mitigate or address the property owner issues	Right of way Agent	11/4/2022
Active	2	Environmental	Historic Properties (Archaeological Site) Adversely Impacted	If historic or pre-historic archaeological resources are adversely impacted, a Memorandum of Agreement (MOA), consultation, and mitigation measures will be required, resulting in additional support costs and schedule delays.	It is assumed the project will not adversely impact a historic or pre-historic archaeological resource based upon preliminary evaluation.	1	20	$0	$2,500,000	$5,000,000	$262,500	0	90	180	19	ENG	S	This risk is based on input from environmental team.	Mitigate	Identify potential locations for pre-historic or historical recourses as a first order of work. Once identified, work with the Design PE to avoid the resource if possible or develop mitigations to be performed during soil excavation.	Environmental Lead	11/4/2022
Active	3	Environmental	Special-Status Species Affected	If it is found during the project development process that special-status species are present within the project area and will be adversely impacted, then additional permits, avoidance measures, minimization measures, and/or mitigation will be necessary.	It is assumed no special-status species will be adversely impacted in the project area.	1	10	$0	$2,500,000	$5,000,000	$137,500	30	60	90	33	ENG	S	This risk is based on input from environmental team.	Mitigate	Avoid impacts to special-status species if possible, and if not, proceed with the necessary documentation and permits as efficiently as possible.	Environmental Lead	3/24/2022
Active	4	Environmental	Scope Change	If the scope of the project increases or significantly changes due to technical studies or public/stakeholder engagement, then this may increase the length and time of the environmental studies or revalidation, increase the project cost, elevate the document level, and delay the project schedule.	It is assumed the scope of the project will not be increased.	1	10	$5,000,000	$5,610,000	$6,220,000	$308,550	30	60	90	33	ENG	C	This risk is based on input from environmental team.	Accept	Continue to have discussions and regular meetings with NVTA and City staff, stakeholders, and the public to inform them of the project status and progression to reduce the likelihood of scope creep/increase.	Project Manager	3/24/2022
Active	5	Design	Approval of Design Exceptions	As a result of existing constraints (physical, R/W, public input), there may be a need for design exceptions that may not be approvable. This could lead to delays in the project schedule and increased project development and capital costs.	It is assumed that any design exceptions will be approvable.	5	20	$5,000,000	$5,610,000	$6,220,000	$701,250	30	60	90	38	ENG	S	This risk is based on input from the design and project management teams.	Accept	Design project to meet Caltrans standards to the maximum extent practicable. Schedule focus meeting with District Design Liaison to coordinate nonstandard features and process a Design Standard Decision Document. If the DDL indicated a design exception will not be granted, drop the alternative from further consideration.	Design PE	11/4/2022
Active	6	Environmental	Export of Contaminated Soil	Should contaminated soil be encountered that are higher than anticipated (exceeding regulated quantities of lead or other pollutants) additional studies may be required, resulting in an impact to cost and schedule.	Based upon desktop surveys and knowledge of the project area, it is assumed that contaminated soil (if found) will be below the minimum thresholds and additional studies will not be required.	5	30	$0	$187,500	$375,000	$32,813	0	45	90	16	ENG	S	This risk is based on input from environmental team.	Accept	Perform the standard soil contamination investigations at each phase of the project and implement mitigation measures as appropriate	Environmental Lead	3/24/2022
Active	7	Organizational	Maintenance Agreement with Outside Agency	If all parties do not concur with the maintenance responsibilities and/or cost implications included in the new freeway maintenance agreement, there may be a delay project schedule and/or the proposed design.	Assumed a maintenance will be needed for various project components.	11	30	$0	$50,000	$100,000	$10,250	30	60	90	42	ENG	S	This risk is based on input from the client and project management teams.	Accept	Once the preferred alignment is selected, the agencies will enter into discussions around maintenance responsibilities as soon as possible.	Project Manager	11/4/2022
Active	8	Utilities	Utility Verification	If unknown or additional unidentified utilities are encountered during the utility verification process, there may be a delay in the project development schedules, design and/or relocation costs	As-built/atlas maps have been received by utility purveyors. Positive location verification pursuant to Caltrans Standard Requirements will be performed.	31	50	$5,000,000	$5,610,000	$6,220,000	$2,272,050	90	135	180	126	ENG	S	This risk is based on input from the design and project management teams.	Accept	Known utilities will be incorporated in the project plans and specifications during PS&E. If any unidentified utilities are encountered during utility verification the design PE to work with ROW and the utility purveyors to identify the utility and/or resolve the conflict. Allocate additional time during project development to account for additional utility coordination time.	Design PE	11/4/2022
Active	9	Utilities	Utility Verification	If relocation negotiation takes longer than expected with the utility purveyors there may be a delay in project schedule or increase in capital costs to relocate or protect in place.	Relocations will be required. Coordination with utilities will be conducted on a regular and frequent basis.	31	50	$5,000,000	$5,610,000	$6,220,000	$2,272,050	90	135	180	126	CON	S	This risk is based on input from the design and project management teams.	Accept	Coordinate with utilities on a regular and frequent basis. Establish early any utilities that would be complicated to relocate and modify design if possible to avoid relocation.	Design PE	11/4/2022
Active	10	Right of Way	R/W Capital	As a result of the project requiring significant right of way, including some relocations, difficult negotiations may occur, which could delay the schedule and increase R/W capital needed to obtain the R/W.	The current PSR-PDS ROW CCE accounts for right of way at the current market rate, and does not account for any unforeseen market swings or inflation.	31	50	$0	$5,000,000	$10,000,000	$2,025,000	30	105	180	91	ENG	C	Based on RAP requirements and volatile real estate market conditions.	Accept	Begin negotiations with property owners and tenants as early as possible to assess the owners willingness to sell the property and/or any relocation assistance efforts will be needed. Begin relocation efforts as early as possible	Right of way Agent	11/4/2022
Active	11	Right of Way	Condemnation Required	If right of way negotiations are not successful, condemnation may be required, leading to a delay in project schedule and increased support costs.	Project schedule has appropriate time for R/W negotiations. It is assumed R/W negotiations will be successful an agreement with the purchasing agency and will not require any condemnation.	31	50	$0	$2,750,000	$10,000,000	$1,417,500	90	225	360	199	ENG	S	Based on input from right of way team	Avoid	Begin negotiations with property owners and tenants as early as possible to assess the owners willingness to sell the property and/or any relocation assistance efforts will be needed. Begin relocation efforts as early as possible	Right of way Agent	11/4/2022
Active	12	Construction	Discovery of Hazardous Material	Unanticipated hazardous materials encountered during construction may require mitigation, removal, and disposal resulting in additional costs to the project.	Hazardous materials may require onsite storage areas to dispose of which can be costly.	31	50	$5,000,001	$5,610,001	$6,220,000	$2,272,050	30	60	90	54	CON	S	Based on input from Environmental and Design Teams	Accept	The Construction RE to work with the PDT and Contractor to identify level of contamination encountered and immediately coordinate the corresponding removal/disposal as required by State and Federal laws.	Construction RE	3/24/2022

Printed Date: 11/10/2022

RISK REGISTER LEVEL	3	PROJECT NAME	SR29 in American Canyon Multimodal Improvements Project	DIST-EA	04-4Q010 (04190002 97)	Project Manager	Amani Melligy	RISK MANAGER	Lindsey Van Parys	TOTAL COST (Capital +Support)	$77,274,800.00
PROJECT PHASE	PID	PDT MEMBERS		RISK ASSESSMENT INFORMATION						TOTAL DAYS (Construction + Initial review (30 days)+ Closeout (60 days))	450

Risk Identification						Probability		Cost Impact ($)				Time Impact (days)				Phase	Capital / Support	Individual Risk	Risk Response				
Status	ID #	Category	Title	Risk Statement	Current Status/ Assumptions	Prob Low	Prob High	Cost Low	Cost Most likely	Cost High	Cost Probable	Low	Most likely	High	Time Probable	ENG/ CON	C/S	Rationale	Strategy	Response Actions	Risk Owner	Updated
Active	13	Environmental	Buried Cultural Materials	If buried historical objects are encountered during construction, then work must be stopped in the area until a qualified archaeologist can evaluate the nature and significance of the find, resulting in an impact to cost and the construction schedule.	It is assumed that no buried historical objects will be encountered during construction.	11	30	$0	$2,500,000	$5,000,000	$512,500	0	90	180	37	CON	S	Based on input from environmental team.	Mitigate	The Construction RE will work with the Cultural Resources lead to determine the most efficient and culturally sensitive strategy as soon as possible to.	Environmental Lead	3/24/2022
Active	14	Environmental	Tree Removal or Trimming within Bird Nesting Season	If nesting birds are encountered & construction work is halted to mitigate for the presence of nesting birds, this may cause a delay in the construction schedule.	It is assumed tree removal or trimming would occur outside of the nesting bird season (February 1st –September 31st).	31	50	$0	$2,500,000	$5,000,000	$1,012,500	30	60	90	54	CON	C	Based on input from environmental team.	Mitigate	Manage construction schedule/timeline to minimize potential nesting bird impacts and specify regulations in the contract documents. If tree removal or trimming occurs during the nesting bird season, a nesting bird survey would be required to be performed by a qualified biologist before bird nesting season.	Construction RE	3/24/2022
Active	15	Project Management	Higher Bids	As a result of a fluctuating economy, bids may come in high, which would lead to a funding shortfall.	Assumption is the bids would be close to Engineer's estimate.	1	10	$5,000,001	$5,610,001	$6,220,000	$308,550	0	1	1	0	ENG	S	This risk is based on input from the design and project management teams.	Accept	Design team to monitor the trends and update project estimate as necessary up until the RTL.	Project Manager	3/24/2022
Active	16	Construction	Unidentified/ unknown Utilities Located during construction	Additional utility conflicts could occur during construction which may cause a delay in schedule and increase in costs.	Potholing required by contractor prior to excavation.	11	30	$0	$2,500,000	$5,000,000	$512,500	30	60	90	42	CON	C	This risk is based on input from the design and project management teams.	Accept	Known utilities will be incorporated in the project plans and specifications during PS&E. Construction activities may affect existing utilities. If any unidentified utilities are encountered during construction, RE to work with ROW and design to resolve the conflict	Construction RE	11/4/2022
Active	17	Construction	Weather Delays	As a result of unpredictable weather, additional rain delays beyond what is anticipated in the construction contract may occur, which would lead to construction schedule delays and cost overruns.	Standard weather days are included in the construction contract documents	11	30	$0	$2,500,000	$5,000,000	$512,500	0	15	30	6	CON	C	This risk is based on input from the design and project management teams.	Accept	During construction NVTA and Construction RE to coordinate with the contractor on schedule efficiencies where possible if a delay occurs due to weather days.	Construction RE	11/4/2022
Active	18	Construction	Project Funding	As a result of funding not yet being secured, funding may fall short, which would lead to a delay in project construction	NVTA (project sponsor) has and will continue to apply for grants to fund this project.	31	50	$0	$2,500,000	$5,000,000	$1,012,500	0	15	30	12	CON	C	Based on cost increases and assumptions on schedule delay to obtain additional funding.	Accept	NVTA to continue to apply for project grants to secure funding.	Project Manager	7/21/2022
Active	19	Project Scope	Public Engagement	Over the duration of the project, community priorities, public sentiment or policies may change, which may lead to design adjustments which could increase the capital or support costs as well as may delay the project schedule	Public Outreach has taken place in this stage and initial indications are the public supports the project and the proposed alternatives meet current local and state policies.	11	30	$0	$2,500,000	$5,000,000	$512,500	0	180	360	74	ENG	S	Based on input from Project management and design teams for costs needed for revised designs.	Accept	NVTA and Caltrans to continue public outreach through all project phases.	Project Manager	11/4/2022
Active	20	Traffic	Construction	As a result of the project being in a preliminary phase, construction staging may limit traffic in construction, which require changes to the TMP and potentially additional delays to the public. This may also cause a delay in schedule to address the changes in TMP.	Construction Staging not yet determined. It will be determined in PA&ED or PS&E. Target maximum delay is 10 minutes.	11	30	$0	$2,500,000	$5,000,000	$512,500	0	15	30	6	CON	C	Based on input from traffic engineering team.	Accept	The TMP should be updated throughout project development, especially when Construction Staging Plans are finalized during project development.	Design PE	7/23/2022
Active	21	Design	Vehicle Miles Traveled	As a result of VMT Analysis not yet being run, an increase of VMT may be determined by analysis, which would lead to a project scope change.	The limited lane additions at the roundabouts are assumed to have no significant impact to VMT. Additionally, the multimodal plans are assumed to lead to a decrease in VMT.	1	10	$0	$2,500,000	$5,000,000	$137,500	0	15	30	2	CON	S	Based on input from traffic planning team.	Accept	As soon as the Vehicle Miles Analysis is completed to address any indication of increased induced VMT, the PDT should work together to determine mitigation measures or to prepare a Statement of Overriding Considerations for approval.	Design PE	7/23/2022

Printed Date: 11/10/2022

ATTACHMENT J

Complete Streets Decision Document

Complete Streets Decision Document (CSDD)

1) Is the project located entirely on a facility where bicyclists and pedestrians are legally prohibited and the project does not involve a shared use path, pedestrian/bicycle structure or work impacting a local road crossing or interchange? (For example, a project including freeway mainline and ramp work, not including the ramp connection with the minor road, where the project freeway segment legally prohibits bicyclists and pedestrians.)

__X__ NO - Proceed to Question 2
_____ YES - Stop here. The project is exempt from further complete streets evaluation. Sign and attach to the Project Initiation Document (PID).

2) Is the primary project purpose to address assets that are outside of the roadbed where pedestrian and bicycle travel is not affected, and proposed project will not affect future pedestrian and bicycle facilities? Examples may include culvert outfalls, storm water treatment facilities, bridge substructure or scour mitigation, planting or vegetation removal, retaining walls, etc.

__X__ NO - Continue to Question 3
_____ YES - Stop here. The project is exempt from further complete streets evaluation. Sign and attach to PID.

3) Has a Transportation Planning Scoping Information Sheet (TPSIS) been completed for this project?

__X__ NO – Proceed to Question 4
_____ YES – Skip to Question 5 (Note: TPSIS is attached to the PID)

4) Which of the following planning documents were consulted to determine bicycle, pedestrian or transit needs? Select all that apply and proceed to Question 5.
   - _____a. District Active Transportation Plan
   - __X__b. Other Caltrans or local/regional agency bike/ped/transit/safe routes to school plans
   - _____c. ADA Transition Plan/Grievances (consult with the District ADA Coordinator)
   - __X__d. Corridor planning documents
   - _____e. Other (list here) _____

5) Based on the reviews completed in Question 4 or identified in the TPSIS, after a review of the roadway geometrics, or identified by the PDT, are there any bicycle, pedestrian, or transit needs, deficiencies or opportunities for improvement identified for the project location?

_____ NO – Provide brief description of findings: _____
Stop here. The project meets the requirements for consideration of Complete Streets elements. Sign and attach to the PID.
__X__ YES – Describe them here and proceed to Question 6: Construct 14 ft Class I Bikeways (Shared-use Paths) adjacent to the right shoulders of Route 29. Construct new curb ramps and crossings.
Construct Transit Queue Jumps (Alternative 1) at signals
Widen Shoulders to Permit Part-time Bus on Shoulder operations
Construct Pedestrian refuges (Alternative 2 only)

6) Based on the needs identified in Question 5, what would be the preferred complete streets elements to address those needs (e.g. road diet, separated bikeway, reconstructed sidewalk, etc.)? Resources include the Complete Streets Elements Toolbox, the Contextual Guidance for Bikeway Facility Selection, the Bikeway Facility Selection Guidance Memorandum, etc. List them in the table below and

provide a rough estimated cost to construct preferred project complete streets elements (including right-of-way and support costs) and proceed to Question 7.

FACILITY TYPE	UNIT	QUANTITY	ESTIMATED TOTAL COST
Class I Bikeway (Shared Use Path) [PM 0.7- 2.1]	*LF*	*15,000*	*$1,600,000*
Transit Queue Jumps	*EA*	*5*	*$850,000*
Crosswalks (New and upgraded)	*LF*	*1,800*	*$100,000*
Enhanced Crossings	EA	30	(See Above)
Sidewalks (Replaced)	LF	217	$20,000
Sidewalks (New)	LF	68	$6,000
Conflict Zone Green Paint	EA	39	$75,000
Shoulder Managed Transit Lanes	LNMI	3	*$1,005,000*

7) Was there any known public and stakeholder opposition to any preferred complete streets elements identified for the project? Provide response and proceed to Question 8.

__X__ NO
_____ YES – Describe the opposition position here: _____

8) Does the programmable project alternative/project scope include all the complete streets elements identified in Question 6?

_____ NO - Proceed to Question 9
__X__ YES - Stop here. The project has met the requirements for consideration of complete streets elements. Sign and attach to PID.

9) Does the project include any of the complete streets elements that are identified in Question 6? Or are there any proposed incremental improvements related to the complete streets elements in Question 6? Provide response and proceed to Question 10.

_____ NO – The programmable project alternative does not include any complete streets elements, and therefore does not address identified needs for complete streets elements.
_____ YES – List them here:

FACILITY TYPE	UNIT	QUANTITY	ESTIMATED TOTAL COST

10) Does the project funding have constraints that would preclude the ability to incorporate additional complete streets elements into the project (For example, cannot combine funding with other sources.)? Provide response and proceed to Question 11.

_____ NO
_____ YES – Describe the constraints here: _____

11) Provide a rationale and justification for not including all the recommended complete streets elements into the project: (Consider the engineering justification, right-of-way constraints, environmental impacts, etc.). _____

Prepared by:

Lindsey Van Parys, PID Preparer in responsible charge
GHD Inc for Napa Valley Transportation Authority

Concurred by:

Sergio Ruiz — 11/30/2022
District Complete Streets Coordinator — Date

Celia McCuaig — 12/28/2022
Name — Date
Deputy District Director, Planning

Jeff Gubb-Ca — 1/23/2023
Name — Date
Deputy District Director, Design or
Division Chief, Design/Project Development

Dina El-Tawansy — 02/03/2023
Name — Date
District Director

Distribution: Attach completed original CSDD to PID and email to HQ Division of Design at CSDD@dot.ca.gov

Revalidation of CSDD at PA&ED

Does the project scope defined in the project approval document include the complete streets elements identified in Question 6 or 9 of this CSDD and the PID?

_____ NO – Prepare a Superseding CSDD (answer Questions 1 through 11) replacing the original CSDD, obtain all certified and concurrence signatures below, and attach the superseding CSDD to the project approval document. Email superseding CSDD to HQ Division of Design at CSDD@dot.ca.gov.
_____ YES – Certify there are no changes to the scope of complete streets elements with only the project engineer certification signature below on the original approved CSDD and attach the CSDD to the project approval document. Email revalidated CSDD to HQ Division of Design at CSDD@dot.ca.gov.

Certified by:

_____ _____
Name, Project Engineer Date
Branch/Company

Concurred by: *(Include concurrence signatures only if a Superseding CSDD is prepared.)*

_____ _____
Name Date
District Complete Streets Coordinator

_____ _____
Name Date
Deputy District Director, Planning

_____ _____
Name Date
Deputy District Director, Design or
Division Chief, Design/Project Development

_____ _____
Name Date
District Director

Revalidation of CSDD at PS&E

Does the project scope designed in the plans, specifications and estimate include the complete streets elements identified in Question 6 or 9 of the CSDD (or Superseding CSDD, if applicable) certified at the PA&ED revalidation and the project approval document?

_____ NO – Prepare a Superseding CSDD (answer Questions 1 through 11) replacing the CSDD that was approved at PA&ED revalidation, obtain all certified and concurrence signatures below, and attach to the Supplemental PR. If a Supplemental PR is not required, place in the project history file. Email superseding CSDD to HQ Division of Design at CSDD@dot.ca.gov.
_____ YES – Certify there are no changes to scope of complete streets elements in the project, and that temporary bike and pedestrian facilities during construction have been considered. Include only the project engineer certification signature below on the CSDD that was approved at PA&ED revalidation and place the CSDD in the project history file. Email revalidated CSDD to HQ Division of Design at CSDD@dot.ca.gov.

Certified by:

_____ _____
Name, Project Engineer Date
Branch/Company

Concurred by: *(Include concurrence signatures only if a Superseding CSDD is prepared.)*

_____ _____
Name Date
District Complete Streets Coordinator

_____ _____
Name Date
Deputy District Director, Planning

_____ _____
Name Date
Deputy District Director, Design or
Division Chief, Design/Project Development

_____ _____
Name Date
District Director

ATTACHMENT K

Stormwater Data Report

Dist-County-Route: Dist 4 – NAP – SR29
Post Mile Limits: 0.69 – 2.05
Type of Work: Proposed Roadway Improvement Along SR 29
Project ID (EA): 04-4Q010
Program Identification: _____
Phase: ☒ PID ☐ PA/ED ☐ PS&E

Regional Water Quality Control Board(s): San Francisco (Region 2)
Total Disturbed Soil Area: Alt 1: 27.5 ac, Alt 2: 35.5 ac
PCTA: Alt 1: 15.9 ac, Alt 2: 17.1 ac
Alternative Compliance (acres): 0
ATA 2 (50% Rule)? Yes ☐ No ☒
Estimated Const. Start Date: 5/1/2025
Estimated Const. Completion Date: 9/31/2026
Risk Level: RL 1 ☐ RL 2 ☒ RL 3 ☐ WPCP ☐ Other: _____
Is MWELO applicable? Yes ☐ No ☒
Is the Project within a TMDL watershed? Yes ☒ No ☐
TMDL Compliance Units (acres): N/A
Notification of ADL reuse (if yes, provide date): Yes ☐ Date: _____ No ☒

This Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the date upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E only.

Erik Fanselau — 9/19/2022
Erik Fanselau, PE, Registered Project Engineer — Date

I have reviewed the stormwater quality design issues and find this report to be complete, current and accurate:

Amani Meligy — 11/29/2022
Amani Meligy, Project Manager — *Date*

Arminder Jhajj — 11/17/2022
Arminder Jhajj, Designated Maintenance Representative — *Date*

11/18/22
Joaquin Pedrin, Designated Landscape Architect Representative — *Date*

Mojgan Osooli — 11/22/2022
Mojgan Osooli, District/Regional Design SW Coordinator or Designee — *Date*

[Stamp Required at PS&E only]

STORMWATER DATA INFORMATION

1. Project Description

The Napa Valley Transportation Authority (NVTA), in cooperation with the California Department of Transportation (Caltrans) and the City of American Canyon (City), proposes roadway improvements along State Route 29 (SR 29) approximately from 0.1 mile south of American Canyon Rd and SR 29 intersection to 0.1 mile North of Napa Junction Road and SR 29 intersection within much of the City limits to address various operational and safety needs along the SR 29 corridor. These improvements are needed to improve and increase multimodal transportation opportunities within the City. Collectively, these improvements are referred to herein as the American Canyon SR 29 Corridor Improvement Project (Project). The Project is located along SR 29 in American Canyon, California between Post Miles (PM) 0.69 and 2.05. See Attachment 1 for the Project Location map.

NVTA has begun evaluating various alternatives that: 1) maximize efficiency and safety; 2) achieve acceptable operating conditions relative to projected future demand; 3) improve air quality, economic development, and social equity; 4) are context sensitive in accord with SR 29's rural and scenic character; and 5) minimize potential impacts to the natural environment. These alternatives are:

- Alternative 1: Multimodal improvements along the SR 29 corridor from American Canyon Road to Napa Junction Road. Improvements include Class I shared use paths on both sides of SR 29, reconstruction of the roadway to provide consistent median width, 11-foot lanes, 10-foot shoulders on SR 29 allowing for part time bus on shoulder, and landscaped planting areas to separate the Class I paths from the roadway. The project will also include signal upgrades. The existing 4-lane roadway configuration would be maintained.

  Minor right of way acquisitions are anticipated for the project. For southbound traffic, additional ROW will be required near Eucalyptus Drive and between Donaldson Way and American Canyon Road. For northbound traffic, additional ROW will be required from Crawford Way to Eucalyptus Drive.

- Alternative 2: Roundabouts along SR 29 at all major intersections except American Canyon Road. Due to high turning and side street volumes, the intersection with American Canyon Road will remain a traffic signal. Alternative 2 proposes to maintain the 4-lane corridor with the same multimodal improvements as Alternative 1. At the roundabout intersections, the corridor will be widened to six lanes approaching the intersections, allowing necessary circulation. Locations with close intersection spacing will maintain six lanes along the corridor. Roundabouts are proposed to increase overall circulation whilst providing traffic calming and enhanced intersection safety for all users. Alternative 2 will require similar right of way needs along the corridor as Alternative 1 but will require additional acquisitions at the intersections due to the larger size roundabout intersections. Additionally, this may require the complete acquisition of various properties along the corridor.

- No-build: the no build alternative eliminates all proposed improvements and leaves Route 29 in its current condition, maintaining all deficiencies and limited multimodal infrastructure.

Disturbed Soil Area and New Impervious Surface

The disturbed soil area (DSA) was calculated by using designed grading limits, where defined and assumed five-foot grading limits, where profiles were not set. A five-foot buffer was added outside these assumed grading limits to account for construction activities. New Impervious Surface (NIS) is the sum of the Net New Impervious surface (NNI) [post-project impervious area – pre-project impervious area) and Replaced Impervious Surface (RIS). Treatment BMPs will be required if the NIS is over an acre. This analysis takes into account the Section C.3 Provisions that state that trails less than 10 feet in width and more than 50 feet away from a body of water are exempt from treatment. Also, for new trail construction the area can be discounted.

Table 1 - Alternative 1 Disturbed Soil Area

State Right-of-Way		City Right-of-Way	
Square Feet	Acres	Square Feet	Acres
1,071,576	24.6	125,937	2.9

Table 2 - Alternative 2 Disturbed Soil Area

State Right-of-Way		City Right-of-Way	
Square Feet	Acres	Square Feet	Acres
1,319,868	30.3	225,446	5.2

Survey data, project models, and aerial photography were utilized to calculate the NIS for the project. The NIS was calculated by summing the NNI and the RIS. Impervious areas created by the Class 1 Bike trail have been discounted from the calculation, as allowed by Table 4-1 in section 4.3 of the Caltrans Stormwater Quality Handbook.

The following tables provides a breakdown of the impervious surface areas by right-of-way.

Table 3 - Alternative 1 Impervious Area Summary

Areas	State Right-of-Way		City Right-of-Way	
	Square Feet	Acres	Square Feet	Acres
NNI Surface Area	35,283	0.81	0	0
RIS Area	646,430	14.84	6,579	0.2
NIS Area	**681,713**	**15.65**	**6,579**	**0.2**

Table 4 - Alternative 2 Impervious Area Summary

Areas	State Right-of-Way		City Right-of-Way	
	Square Feet	Acres	Square Feet	Acres
NNI Surface Area	10,454	0.24	8712	0.2
RIS Area	714,384	16.40	11,149	0.3
NIS Area	724,838	16.64	19,861	0.5

NNI and NIS account only for the change in permeable surfaces and don't consider areas that remain permeable after the construction and are impacted by grading or other permeable improvements. Because of this, areas used in the calculations don't correspond to the disturbed area in this project.

2. Site Data and Stormwater Quality Design Issues

Hydrologic Unit, Receiving Waterbodies, and CWA 303(d) List

The project is located within the San Francisco Bay RWQCB, designated Region Number 2, which sets policy on implementing state and federal water quality law. The Hydrologic Unit is San Pablo and the Hydrologic Area is Napa River. Located within Hydraulic Sub-Area 206.50, the receiving water body near the project limits is the Napa River which discharges to San Pablo Bay, which is part of the San Francisco Bay. The San Francisco Bay ultimately terminates into the Pacific Ocean. The San Francisco Bay is included in the 2014-2016 303(d) list.

Beneficial Users

Existing Beneficial users for this Region 2 waterway (San Pablo Bay) are considered to be commercial and sport fishing (COMM), estuarine habitat (EST), migration of aquatic resources (MIGR), endangered species (RARE), wildlife habitat (WILD), contact/non-contact water recreation (REC-1/REC-2), navigation (NAV), shellfish harvesting (SHELL), spawning (SPWN), and industrial service supply (IND).

Climatic Data

The project is in a semi-arid region characterized by moderate summers and mild wet winters. The rainy season falls between October and April with an annual average precipitation of 18 inches, based on information provided by Caltrans.

Geotechnical Information and Land Use

The Project area is located in Napa County, within the San Francisco Bay Area. At this time, a project specific geotechnical investigation has not been performed. However, based on information provided by the USDA and Caltrans, soils consist mostly of clay soils with 0 to 2% slopes and can be classified in hydrologic soil group D. The soil has a K-factor of 0.24, per Caltrans Water Quality Planning Tool, indicating the soils have moderate detachment susceptibility and can create moderate runoff. The project area is comprised of existing roadway and bordered by commercial and undeveloped land.

Hazardous Waste

No hazardous waste has been identified yet as part of the initial project investigation.

404 Permit and 401 Certification

It has not been determined if a 404 Permit or Section 401 certification from the San Francisco Regional Water Quality Control Board will be required This will be determined in a subsequent submittal.

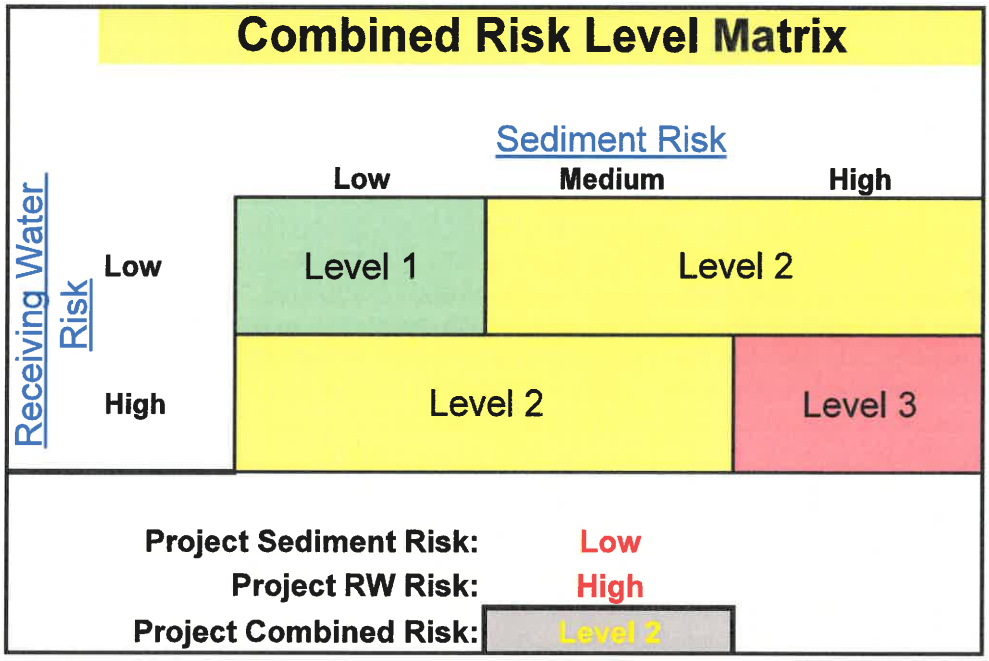
3. Construction Site BMPs to be used on Project

This project disturbs greater than 1 acre of soil and thus requires a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP will be developed by the Contractor and submitted to Caltrans for approval prior to the start of construction.

Project Risk Factor

Project Risk Level: **Level 2**

The project risk level was determined by weighing the sediment risk factor with the receiving water risk factor. See below for the Risk Level Matrix.



Due to the risk level Rain Event Action Plans will be required and effluent limits for pH and turbidity are required to be compliant.

Construction Site BMP Strategies

The projects disturbed soils will be protected with various BMPs, listed within the SWPPP.

Temporary fiber rolls, silt fences, and street sweeping will be used to mitigate sediment contamination during construction, while hydromulch will be used for soil stability. Check dams, drainage inlet protection, and construction entrances will be utilized to prevent sediments from transferring off site. Staging areas, or other stockpile areas, will utilize appropriate BMPs, such as those listed above, to protect neighboring inlets and ditches during construction.

Waste contamination will be prevented by utilizing appropriate BMPs around stockpiles and utilizing concrete washouts. Storm water monitoring and rain event action plans will be required along with regular water sampling to avoid excessive pollutants and unnecessary impacts to the water body. A Stormwater Pollution Prevention Plan (SWPPP) is required and will be prepared and submitted by the Contractor.

4. Maintenance BMPs

The water quality design has not been evaluated at this point in the project, but permanent water quality treatment will be required as part of the design. It is probable that bioswales will be incorporated into the design to address this requirement.

5. Other Water Quality Requirements and Agreements

The majority of this project will be constructed within Caltrans ROW and additional ROW acquisition will be required to support the project construction. American Canyon operates under the Municipal Regional National Pollutant Discharge Elimination System Stormwater Permit issued by the San Francisco Regional Water Quality Control Board.

6. Permanent BMPs

Rapid Stability Assessment

No RSA is required as the project area is not part of a Threshold Drainage Area.

Design Pollution Prevention (DPP) BMP Strategy

Downstream Effects

There are no direct discharges to a stream so there are no downstream effects.

Slope/Surface Protection

Slope/Surface Protection Systems will be in place. Other permanent erosion control strategies may include compost, hydroseed, hydromulch, and fiber rolls.

Concentrated Flow Conveyance Systems

The existing roadway drainage system includes existing inlets, manholes, and pipes. The proposed drainage modifications will continue to discharge to this system.

Preservation of Existing Vegetation and Soils

Clearing of existing vegetation within the project limits will be necessary. Any environmentally sensitive areas will be marked with high visibility fence prior to construction beginning. Existing vegetation will be unaltered in locations where possible.

Treatment BMP Strategy

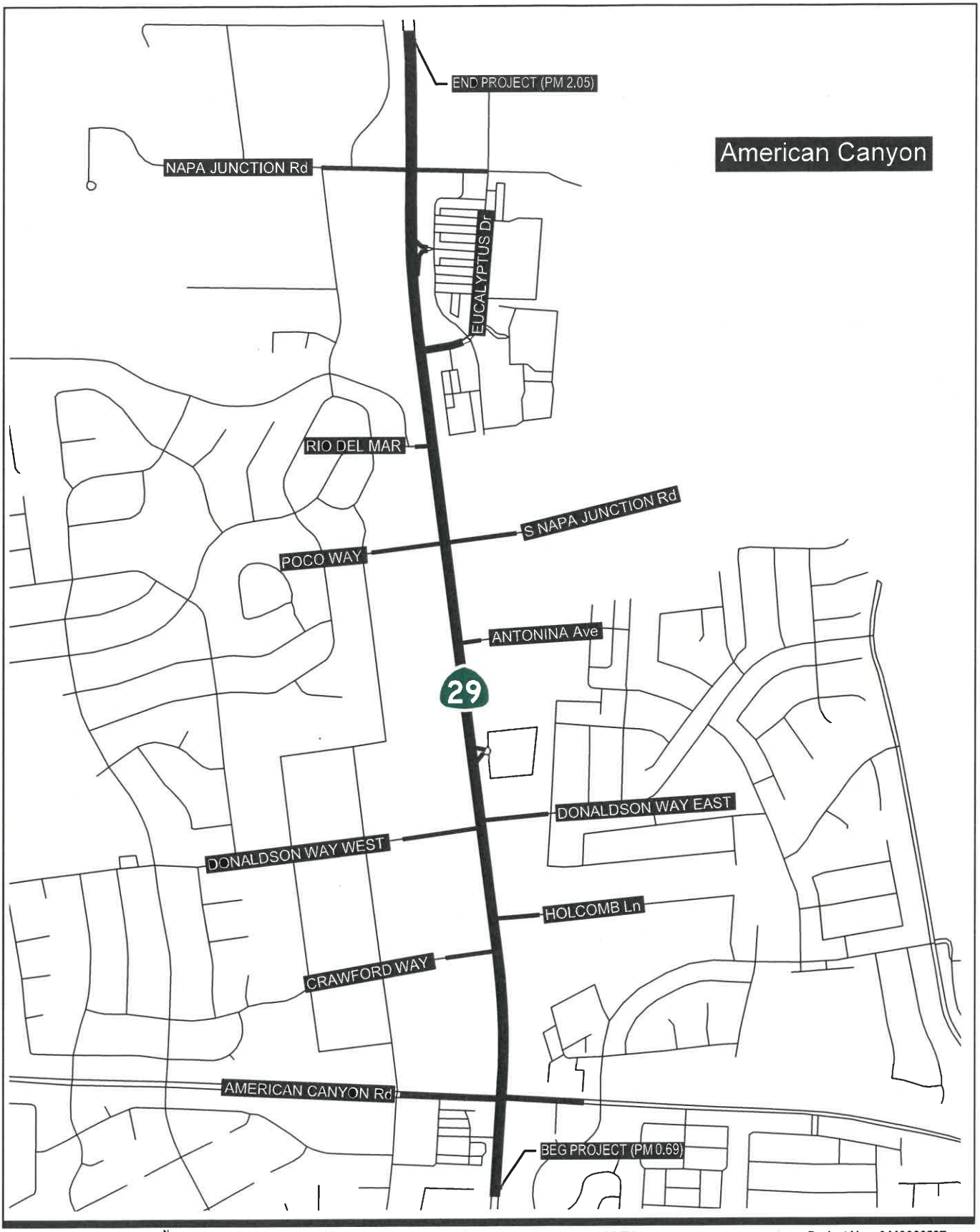
Treatment solutions have not been determined at this stage of the project. However, it is likely that permanent water quality treatment design will consist of vegetated swales that treat the roadway runoff before it drains to the adjacent receiving system. This project is located outside the delineated Significant Trash Generating Area (STGA) for District 4. However, to the maximum extent practicable, trash capture features will be incorporated into the design.

Required Attachments

1. Vicinity Map/ Location Map
2. Evaluation Documentation Form (EDF)
3. Risk Level Determination Documentation
4. SWDR Attachment for SMARTS Input (To be completed in PS&E)
5. Stormwater Data Report Summary Spreadsheet Output (To be completed in PS&E)

Supplemental Attachments

6. Temporary Water Pollution Control Plan (To be completed in PS&E)
7. DSA Exhibit
8. Change in Pervious and Impervious Surfaces Exhibit
9. Grading Plans (To be completed in PA/ED)
10. Drainage Plans (To be completed in PS&E)
11. Erosion Control Plans (To be completed in PS&E)
12. (not used)
13. Typical Cross-Sections



N

0 1000 2000

1 inch = 1000 ft.

GHD

NVTA
ROUTE 29 IN AMERICAN CANYON
COMPLETE STREETS IMPROVEMENTS PROJECT

PROJECT LOCATION MAP

Project No. 0419000297
Date 9/7/2021

Attachment 1

Filename: N:\US\Roseville\Projects\561\11187559\00-SR 29 Am Can PID Project\Design- CAD\Project Location Map.dwg
Plot Date: 10 December 2021 3:00 PM

04-NAP-29, 0.69-2.05
(EA 04-4Q010)

Evaluation Documentation Form
September 2022

DATE: 9/19/2022

Project ID (EA): 04-4Q010

No.	Criteria	Yes ✓	No ✓	Supplemental Information for Evaluation
1.	Begin Project evaluation regarding requirement for implementation of Treatment BMPs	✓		See Figure 4-1, Project Evaluation Process for Consideration of Treatment BMPs. Continue to 2.
2.	Is the scope of the Project to install Treatment BMPs (e.g., Alternative Compliance or TMDL Compliance Units)?		✓	If Yes, go to 8. If No, continue to 3.
3.	Is there a direct or indirect discharge to surface waters?	✓		If Yes, continue to 4. If No, go to 9.
4.	As defined in the WQAR or ED, does the project: a. discharge to Areas of Special Biological Significance (ASBS), or		✓	If Yes to any, contact the District/Regional Design Stormwater Coordinator or District/Regional NPDES Coordinator to discuss the Department's obligations, go to 8 or 5. MO *(Dist./Reg. Coordinator initials)* If No to all, continue to 5.
	b. discharge to a TMDL watershed where Caltrans is named stakeholder, or	✓		
	c. have other pollution control requirements for surface waters within the project limits?		✓	
5.	Are any existing Treatment BMPs partially or completely removed? (ATA Condition 1, Section 4.4.1)		✓	If Yes, go to 8 AND continue to 6. If No, continue to 6.
6.	Is this a Routine Maintenance Project?		✓	If Yes, go to 9. If No, continue to 7.
7.	Does the project result in an increase of one acre or more of new impervious surface (NIS)?	✓		If Yes, go to 8. If No, go to 9.
8.	Project is required to implement Treatment BMPs.	Complete Checklist T-1, Part 1.		
9.	Project is not required to implement Treatment BMPs. MO *(Dist./Reg. Design SW Coord. Initials)* EDF *(Project Engineer Initials)* 9/19/22 *(Date)*	Document for Project Files by completing this form and attaching it to the SWDR.		

Attachment 3
Risk Level Determination Document

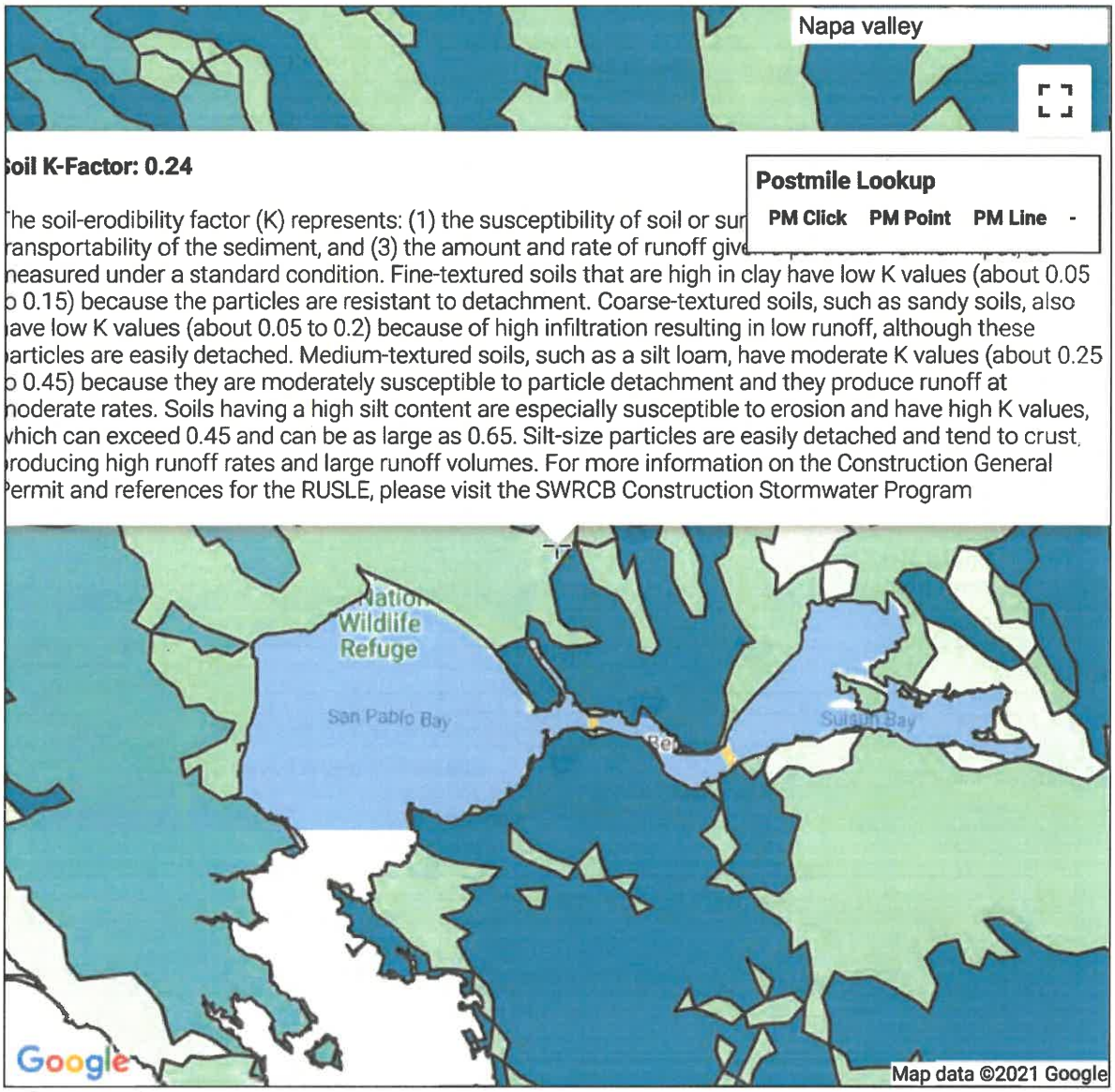
	A	B	C	D
1	American Canyon			
2	**Sediment Risk Factor Worksheet**		**Entry**	
3	**A) R Factor**			CON
4	Analyses of data indicated that when factors other than rainfall are held constant, soil loss is directly proportional to a rainfall factor composed of total storm kinetic energy (E) times the maximum 30-min intensity (I30) (Wischmeier and Smith, 1958). The numerical value of R is the average annual sum of EI30 for storm events during a rainfall record of at least 22 years. "Isoerodent" maps were developed based on R values calculated for more than 1000 locations in the Western U.S. Refer to the link below to determine the R factor for the project site.			
5	http://cfpub.epa.gov/npdes/stormwater/LEW/lewCalculator.cfm			
6			**R Factor Value** 40.00	
7	**B) K Factor (weighted average, by area, for all site soils)**			
8	The soil-erodibility factor K represents: (1) susceptibility of soil or surface material to erosion, (2) transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition. Fine-textured soils that are high in clay have low K values (about 0.05 to 0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05 to 0.2) because of high infiltration resulting in low runoff even though these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25 to 0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high rates and large volumes of runoff. Use Site-specific data must be submitted.			
9	Site-specific K factor guidance			
10			**K Factor Value** 0.24	
11	**C) LS Factor (weighted average, by area, for all slopes)**			
12	The effect of topography on erosion is accounted for by the LS factor, which combines the effects of a hillslope-length factor, L, and a hillslope-gradient factor, S. Generally speaking, as hillslope length and/or hillslope gradient increase, soil loss increases. As hillslope length increases, total soil loss and soil loss per unit area increase due to the progressive accumulation of runoff in the downslope direction. As the hillslope gradient increases, the velocity and erosivity of runoff increases. Use the LS table located in separate tab of this spreadsheet to determine LS factors. Estimate the weighted LS for the site prior to construction.			
13	LS Table			
14			**LS Factor Value** 0.53	
15				
16	**Watershed Erosion Estimate (=RxKxLS) in tons/acre**	5.088		
17	**Site Sediment Risk Factor**	**Low**		
18	Low Sediment Risk: < 15 tons/acre			
19	Medium Sediment Risk: >=15 and <75 tons/acre			
20	High Sediment Risk: >= 75 tons/acre			
21				
22				
23	Additional Information Needed in NOI in SMARTS	SF	AC	
24	Total Site Size (ac or sf):	1,197,900	27.50	
25	Total Project Site Size (ac or sf):	1,197,900	27.50	
26	Total area to be disturbed (ac):	1,197,900	27.50	
27	% Of Total Area (%)		100.00%	
28	Imperviousness Before Construction (%):	655,142	54.69%	
29	Imperviousness After Construction (%):	690,425	79.93%	
30	Delta in Impervious (SF) - Pos=Increase; Neg=Decrease		25.24%	
31	Type of Construction: Residential; Commercial: Industrial; Reconstruction; Transporation; Utility: Type; Other	Road/Trail		
32	Name & Telephone Number of Local Reviewing Agency:	American Canyon		
33	Engineering			
34	Receiving Water Information: If indirectly or directly specify name of receiving water. Else - agency storm drain system	Directly: storm drain system Indirectly: creek		
35				

Caltrans Water Quality Planning Tool

The Water Quality Planning Tool was created to help planners and designers comply with environmental permits. It uses a map interface to find information based on a project's location. **This application is being updated for digital accessibility and will continue to function while updates are in progress.**

- [ ] Arid and Semi-Arid Regions
- [ ] Caltrans Districts
- [ ] Caltrans Facilities
- [ ] Caltrans T 1 Monitorir Sites
- [ ] Calwater Watershec
- [ ] Coastal Zone
- [ ] Counties
- ( ) Geologic Map (Legend)
- [ ] High Risk Receiving Watershec
- [ ] Monthly Precipitatic
- [ ] MS4 Areas

Information
Hover over a layer name for a description. Additional information, tables, coordinates, and links are below the map.
Help



Watershed Information

CALWATER WATERSHED

Hydrologic Unit	SAN PABLO	Hydrologic Area	Napa River	Hydrologic Sub-Area #	206.50
Hydrologic Sub-Area Name	undefined	Planning Watershed	2206500405	HSA Area (acres)	266735
Latitude, Longitude	38.1673, -122.2532				

WATERSHED BOUNDARY DATASET

Watershed	Tulucay Creek-Frontal San Pablo Bay Estuaries	**Subwatershed**	American Canyon Creek-Frontal San Pablo Bay Estuaries	**Hydrologic Unit Code**	180500020401
Average Annual Precipitation (inches)	17.86				

TMDLs & 303(d) Listed Water Bodies (2014 - 2016 List)

Key: Water body on 303(d) list Water body with a TMDL

Name	Pollutant	Size	Status
Carquinez Strait	Chlordane	5657.31 Acres	TMDL required
Carquinez Strait	DDT (Dichlorodiphenyltrichloroethane)	5657.31 Acres	TMDL required
Carquinez Strait	Dieldrin	5657.31 Acres	TMDL required
Carquinez Strait	Dioxin compounds (including 2,3,7,8-TCDD)	5657.31 Acres	TMDL required
Carquinez Strait	Furan Compounds	5657.31 Acres	TMDL required
Carquinez Strait	Invasive Species	5657.31 Acres	TMDL required
Carquinez Strait	Mercury	5657.31 Acres	Being addressed with USEPA approved TMDL
Carquinez Strait	PCBs (Polychlorinated biphenyls)	5657.31 Acres	Being addressed with USEPA approved TMDL
Carquinez Strait	PCBs (Polychlorinated biphenyls) (dioxin-like)	5657.31 Acres	Being addressed with USEPA approved TMDL
Carquinez Strait	Selenium	5657.31 Acres	Being addressed with USEPA approved TMDL
Henne, Lake	Mercury	17.24 Acres	TMDL required
Lake Chabot (Solano Co)	Mercury	47.96 Acres	TMDL required
Napa River, non-tidal	Nutrients	38 Miles	TMDL required
Napa River, non-tidal	Pathogens	38 Miles	Being addressed with USEPA approved TMDL
Napa River, non-tidal	Sedimentation/Siltation	38 Miles	Being addressed with USEPA approved TMDL
Napa River, tidal	Nutrients	23.07 Miles	TMDL required
Napa River, tidal	Pathogens	23.07 Miles	Being addressed with USEPA approved TMDL
Rindler Creek	Trash	6.13 Miles	Being addressed with action other than TMDL
San Pablo Bay	Chlordane	68348.92 Acres	TMDL required
San Pablo Bay	DDT (Dichlorodiphenyltrichloroethane)	68348.92 Acres	TMDL required
San Pablo Bay	Dieldrin	68348.92 Acres	TMDL required
San Pablo Bay	Dioxin compounds (including 2,3,7,8-TCDD)	68348.92 Acres	TMDL required
San Pablo Bay	Furan Compounds	68348.92 Acres	TMDL required
San Pablo Bay	Invasive Species	68348.92 Acres	TMDL required
San Pablo Bay	Mercury	68348.92 Acres	Being addressed with USEPA approved TMDL
San Pablo Bay	PCBs (Polychlorinated biphenyls)	68348.92 Acres	Being addressed with USEPA approved TMDL
San Pablo Bay	PCBs (Polychlorinated biphenyls) (dioxin-like)	68348.92 Acres	Being addressed with USEPA approved TMDL
San Pablo Bay	Selenium	68348.92 Acres	Being addressed with USEPA approved TMDL

Water Quality Objectives

The following waterbodies are in or near HSA 206.50. Click on the waterbody to get information on water quality objectives and beneficial uses

Waterbody Name	Beneficial Uses	Sediment-Sensitive Waterbody
Briones Reservoir	COLD, MUN, REC1, REC2, SPWN, WARM, WILD	False
Calabazas Creek	AGR, COLD, GWR, NAV, REC1, REC2, WARM, WILD	False
Calabazas Creek	AGR, COLD, GWR, NAV, REC1, REC2, WARM, WILD	False
Carquinez Strait	COMM, EST, IND, MIGR, NAV, RARE, REC1, REC2, SPWN, WILD	False
Dry Creek	AGR, COLD, MIGR, MUN, REC1, REC2, SPWN, WARM, WILD	True
Green Valley Creek	COLD, FRSH, REC1, REC2, SPWN, WARM, WILD	False
Green Valley Creek	COLD, FRSH, REC1, REC2, SPWN, WARM, WILD	False
Hennessay Lake	COLD, MUN, REC1, REC2, SPWN, WARM, WILD	False
Herman Lake	COLD, IND, MUN, REC1, REC2, SPWN, WARM, WILD	False
Kimball Reservoir	MUN, REC1, REC2, WARM, WILD	False
Lafayette Lake	COLD, MUN, REC2, SPWN, WARM, WILD	False
lake Chabot (Solano)	AGR, MUN, REC1, REC2, SPWN, WARM, WILD	False
Lake Curry	MUN, REC1, REC2, SPWN, WARM, WILD	False
Lake Frey	COLD, MUN, REC2, SPWN, WARM, WILD	False
Lake Madigan	AGR, COLD, MUN, REC2, SPWN, WARM, WILD	False
Lake Marie	AGR, COLD, REC1, REC2, SPWN, WARM, WILD	False
Mallard Reservoir	AGR, IND, MUN, PROC, REC1, REC2, SPWN, WARM, WILD	False
Miller Cr	COLD, MIGR, RARE, REC1, REC2, SPWN, WARM, WILD	True
Milliken Reservoir	COLD, MUN, REC1, REC2, SPWN, WARM, WILD	False
Montezuma Slough	NAV, RARE, REC1, REC2, SPWN, WARM, WILD	False
Napa R	AGR, COLD, MIGR, MUN, NAV, RARE, REC1, REC2, SPWN, WARM, WILD	True
Pacheco Pond	COMM, REC1, WARM	False
Pinhole Creek	COLD, MIGR, REC1, REC2, SPWN, WARM, WILD	True
Rector Reservoir	COLD, MUN, REC1, SPWN, WARM, WILD	False
San Pablo Bay	COMM, EST, IND, MIGR, NAV, RARE, REC1, REC2, SHELL, SPWN, WILD	False
San Pablo Bay	COMM, EST, IND, MIGR, NAV, RARE, REC1, REC2, SHELL, SPWN, WILD	False
San Pablo Cr	MIGR, REC2, SPWN, WARM, WILD	False
Sonoma Cr	COLD, MIGR, RARE, REC1, REC2, SPWN, WARM, WILD	True
Sonoma Cr	COLD, MIGR, RARE, REC1, REC2, WARM, WILD	False
Stafford Lake	COLD, MUN, REC1, REC2, SPWN, WARM, WILD	False
Suisun Cr	COLD, FRSH, MIGR, REC1, REC2, SPWN, WARM, WILD	True
Suisun Cr	COLD, FRSH, MIGR, REC1, REC2, SPWN, WARM, WILD	True
York Creek	COLD, MIGR, REC2, SHELL, SPWN, WILD	True

Caltrans Facilities

MAINTENANCE STATIONS

Name	Address
Mount Saint Helena	Hwy 29 PM 43.6
Calistoga	1413 Tubbs Lane
Napa	3161 Jefferson Street

FREEWAYS AND HIGHWAYS

Route	Length (miles)
12	3.1
29	51.4
37	11.9

Vallejo	1700 Sear Point Road	80	7.7
Carquinez/Benicia/Antioch Bridges	Carquinez Toll Plaza	121	13.9
		128	17
		221	2.7
		780	1.5

PARK & RIDE LOTS

Name	District	County	Route	Post Mile
LEMON	4	SOL	80	2.2
MAGAZINE	4	SOL	80	1.738
IMOLA	4	NAP	29	10.305
BENICIA	4	SOL	80	2.445

REST AREAS

Name	District	County	Route	Post Mile
HUNTER HILL	4	SOL	80	6.700

Additional Information

Help for the Water Quality Planning Tool

TMDL information from the SWRCB

Construction General Permit information from the SWRCB

Groundwater Depth information from the California Department of Water Resouces

R Factor erosivity calculations

Caltrans Water Quality Planning Tool

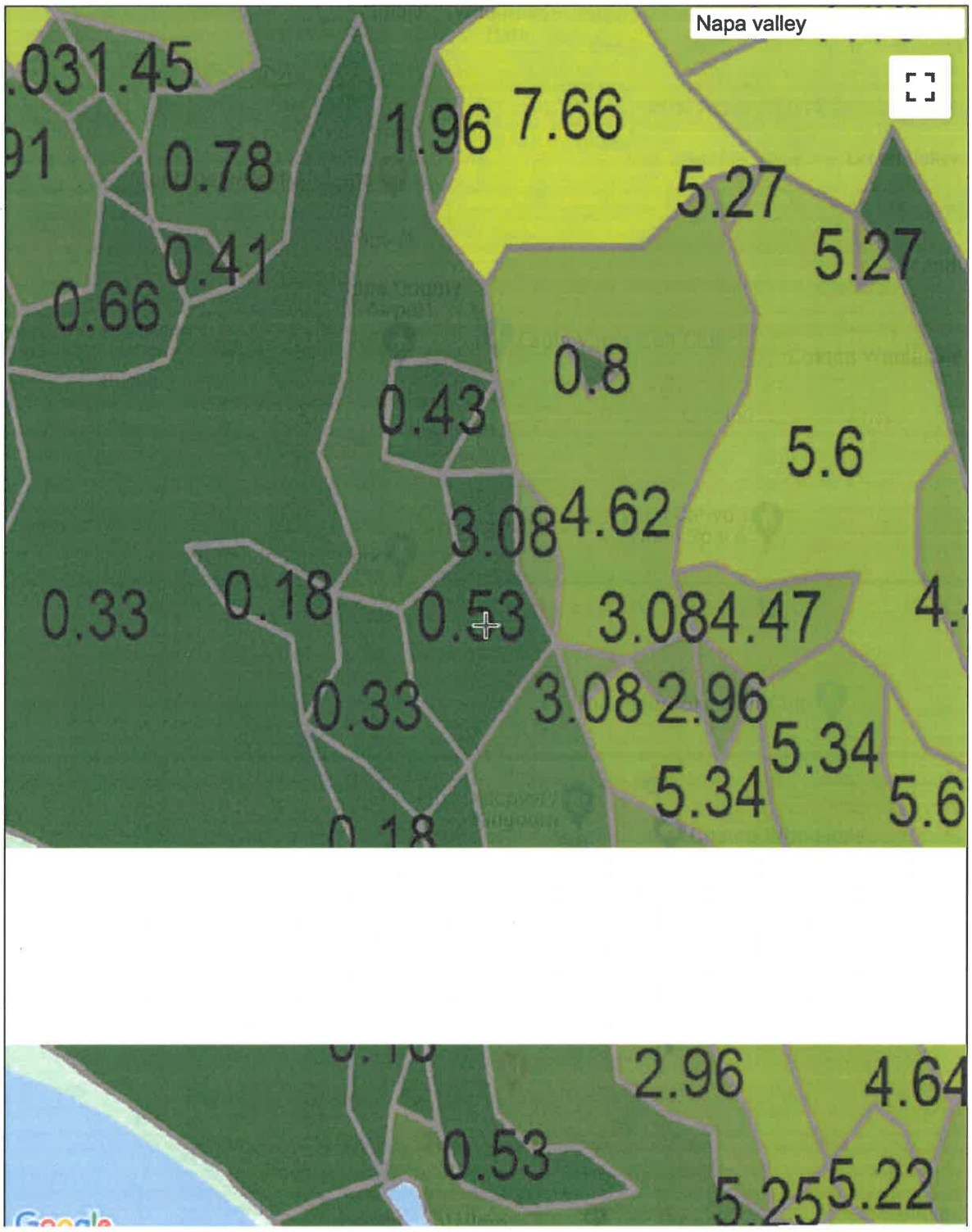
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- Regions
- Caltrans Districts
- Caltrans Facilities
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- Coastal Zone
- Counties
- Geologic Map (Legend)
- High Risk Receiving Watersheds
- Monthly Precipitatio
- MS4 Areas
- Post Miles
- Rainfall Distribution
- RWQCB Boundaries
- USGS Topo Maps
- Watershed Boundary Dataset

Risk Level Determination

- Erosivity

Information
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Help





Watershed Information

CALWATER WATERSHED

Hydrologic Unit	SAN PABLO	Hydrologic Area	Napa River	Hydrologic Sub-Area #	206.50
Hydrologic Sub-Area Name	undefined	Planning Watershed	2206500405	HSA Area (acres)	266735
Latitude, Longitude	38.1725, -122.2537				

WATERSHED BOUNDARY DATASET

Watershed	Tulucay Creek-Frontal San Pablo Bay Estuaries	Subwatershed	American Canyon Creek-Frontal San Pablo Bay Estuaries	Hydrologic Unit Code	180500020401
Average Annual Precipitation (inches)	17.86				

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Calabazas Creek	AGR, COLD, GWR, NAV, REC1, REC2, WARM, WILD	False
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Dry Creek	AGR, COLD, MIGR, MUN, REC1, REC2, SPWN, WARM, WILD	True
Green Valley Creek	COLD, FRSH, REC1, REC2, SPWN, WARM, WILD	False
Green Valley Creek	COLD, FRSH, REC1, REC2, SPWN, WARM, WILD	False
Hennessay Lake	COLD, MUN, REC1, REC2, SPWN, WARM, WILD	False
Herman Lake	COLD, IND, MUN, REC1, REC2, SPWN, WARM, WILD	False
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Lake Madigan	AGR, COLD, MUN, REC2, SPWN, WARM, WILD	False
Lake Marie	AGR, COLD, REC1, REC2, SPWN, WARM, WILD	False
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Montezuma Slough	NAV, RARE, REC1, REC2, SPWN, WARM, WILD	False
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Pinhole Creek	COLD, MIGR, REC1, REC2, SPWN, WARM, WILD	True
Rector Reservoir	COLD, MUN, REC1, SPWN, WARM, WILD	False
San Pablo Bay	COMM, EST, IND, MIGR, NAV, RARE, REC1, REC2, SHELL, SPWN, WILD	False
San Pablo Bay	COMM, EST, IND, MIGR, NAV, RARE, REC1, REC2, SHELL, SPWN, WILD	False
San Pablo Cr	MIGR, REC2, SPWN, WARM, WILD	False
Sonoma Cr	COLD, MIGR, RARE, REC1, REC2, SPWN, WARM, WILD	True
Sonoma Cr	COLD, MIGR, RARE, REC1, REC2, WARM, WILD	False
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Suisun Cr	COLD, FRSH, MIGR, REC1, REC2, SPWN, WARM, WILD	True
Suisun Cr	COLD, FRSH, MIGR, REC1, REC2, SPWN, WARM, WILD	True
York Creek	COLD, MIGR, REC2, SHELL, SPWN, WILD	True

Caltrans Facilities

MAINTENANCE STATIONS

Name	Address
Mount Saint Helena	Hwy 29 PM 43.6
Calistoga	1413 Tubbs Lane
Napa	3161 Jefferson Street
Vallejo	1700 Sear Point Road
Carquinez/Benicia/Antioch Bridges	Carquinez Toll Plaza

FREEWAYS AND HIGHWAYS

Route	Length (miles)
12	3.1
29	51.4
37	11.9
80	7.7
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128	17
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780	1.5

PARK & RIDE LOTS

Name	District	County	Route	Post Mile
LEMON	4	SOL	80	2.2
MAGAZINE	4	SOL	80	1.738
IMOLA	4	NAP	29	10.305
BENICIA	4	SOL	80	2.445

REST AREAS

Name	District	County	Route	Post Mile
HUNTER HILL	4	SOL	80	6.700

Additional Information

Help for the Water Quality Planning Tool

TMDL information from the SWRCB

Construction General Permit information from the SWRCB

Groundwater Depth information from the California Department of Water Resouces

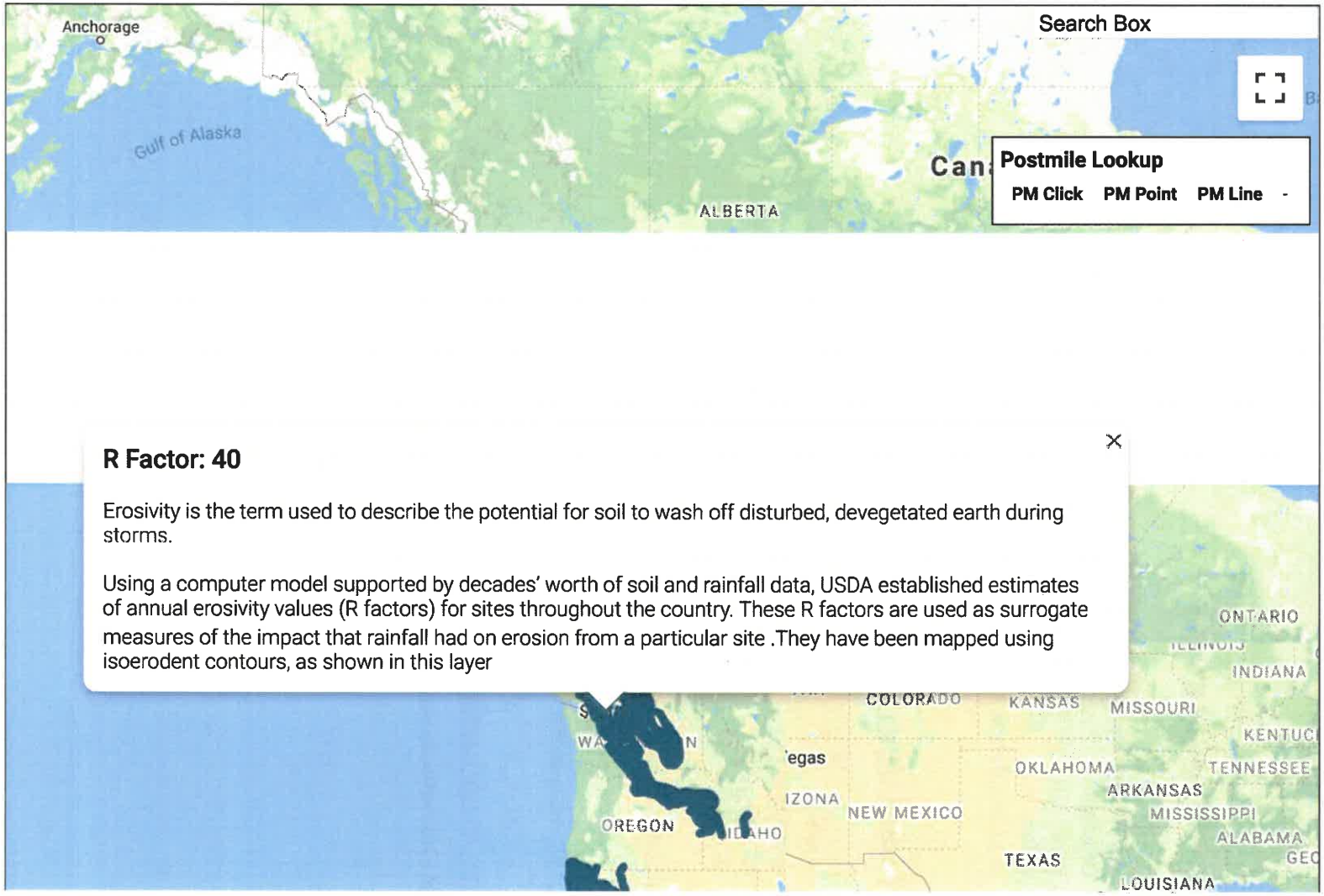
R Factor erosivity calculations

Caltrans Water Quality Planning Tool

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- [ ] Areas of Special Biological Significance
- [ ] Arid and Semi-Arid Regions
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- [ ] Caltrans Facilities
- [ ] Caltrans Tier 1 Monitoring Sites
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- [ ] Post Miles
- [ ] Rainfall Distribution
- [ ] RWQCB Boundaries
- ○ USGS Topo Maps
- [ ] Watershed Boundary Dataset

Risk Level



Determination

☐ Erosivity Index

Information
Hover over a layer name for a description. Additional information, tables, coordinates, and links are below the map.
Help



Watershed Information

CALWATER WATERSHED

Hydrologic Unit | Hydrologic Area | Hydrologic Sub-Area #
Hydrologic Sub-Area Name | Planning Watershed 0 | HSA Area (acres)
Latitude, Longitude 41.1807, -119.2388

WATERSHED BOUNDARY DATASET

Watershed High Rock Lake Subwatershed Willow Creek Hydrologic Unit Code 160402030209
Average Annual Precipitation (inches) 0

TMDLs & 303(d) Listed Water Bodies (2014 - 2016 List)

Key: Water body on 303(d) list Water body with a TMDL

Name	Pollutant	Size	Status
No listings found.			

Water Quality Objectives

The following waterbodies are in or near HSA . Click on the waterbody to get information on water quality objectives and beneficial uses

Waterbody Name Beneficial Uses Sediment-Sensitive Waterbody

Caltrans Facilities

MAINTENANCE STATIONS

Name Address

FREEWAYS AND HIGHWAYS

Route Length (miles)

PARK & RIDE LOTS

Name District County Route Post Mile

REST AREAS

Name District County Route Post Mile

Additional Information

Help for the Water Quality Planning Tool

TMDL information from the SWRCB

Construction General Permit information from the SWRCB

Groundwater Depth information from the California Department of Water Resouces

R Factor erosivity calculations

ATTACHMENT 7

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

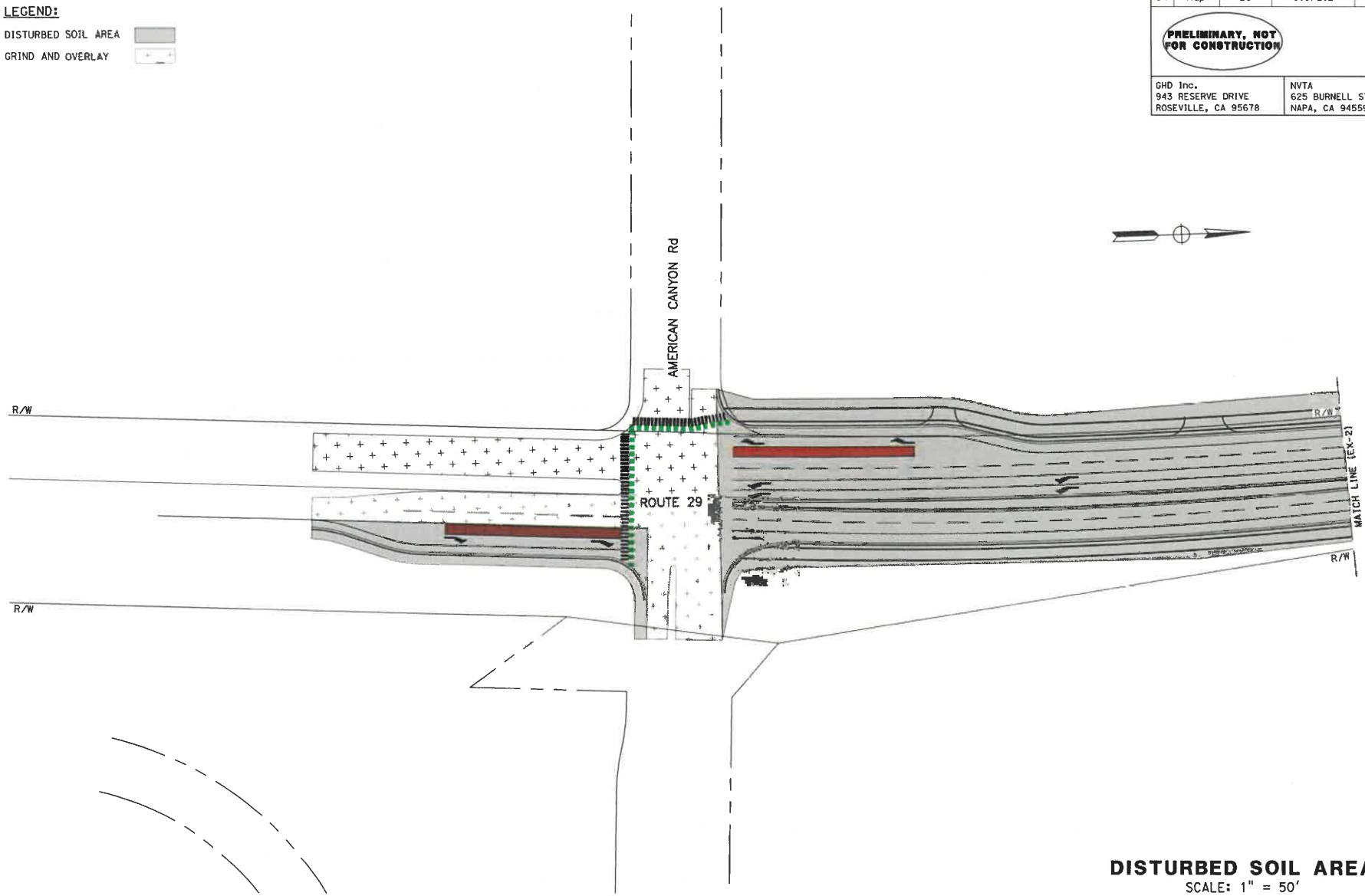
PRELIMINARY, NOT FOR CONSTRUCTION

GHD Inc. 943 RESERVE DRIVE ROSEVILLE, CA 95678	NVTA 625 BURNELL STREET NAPA, CA 94559

LEGEND:

DISTURBED SOIL AREA

GRIND AND OVERLAY



DISTURBED SOIL AREA

SCALE: 1" = 50'

ALTERNATIVE 1

EX-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

RONALD G. BOYLE — ASSISTANT FUNCTIONAL SUPERVISOR

CALCULATED-DESIGNED BY

CHECKED BY

DELANEY BABCOCK

LINDSEY VAN PARYS

REVISED BY

DATE REVISED

LAST REVISION DATE PLOTTED => 2-2-2022
00-00-00 TIME PLOTTED => 16:34

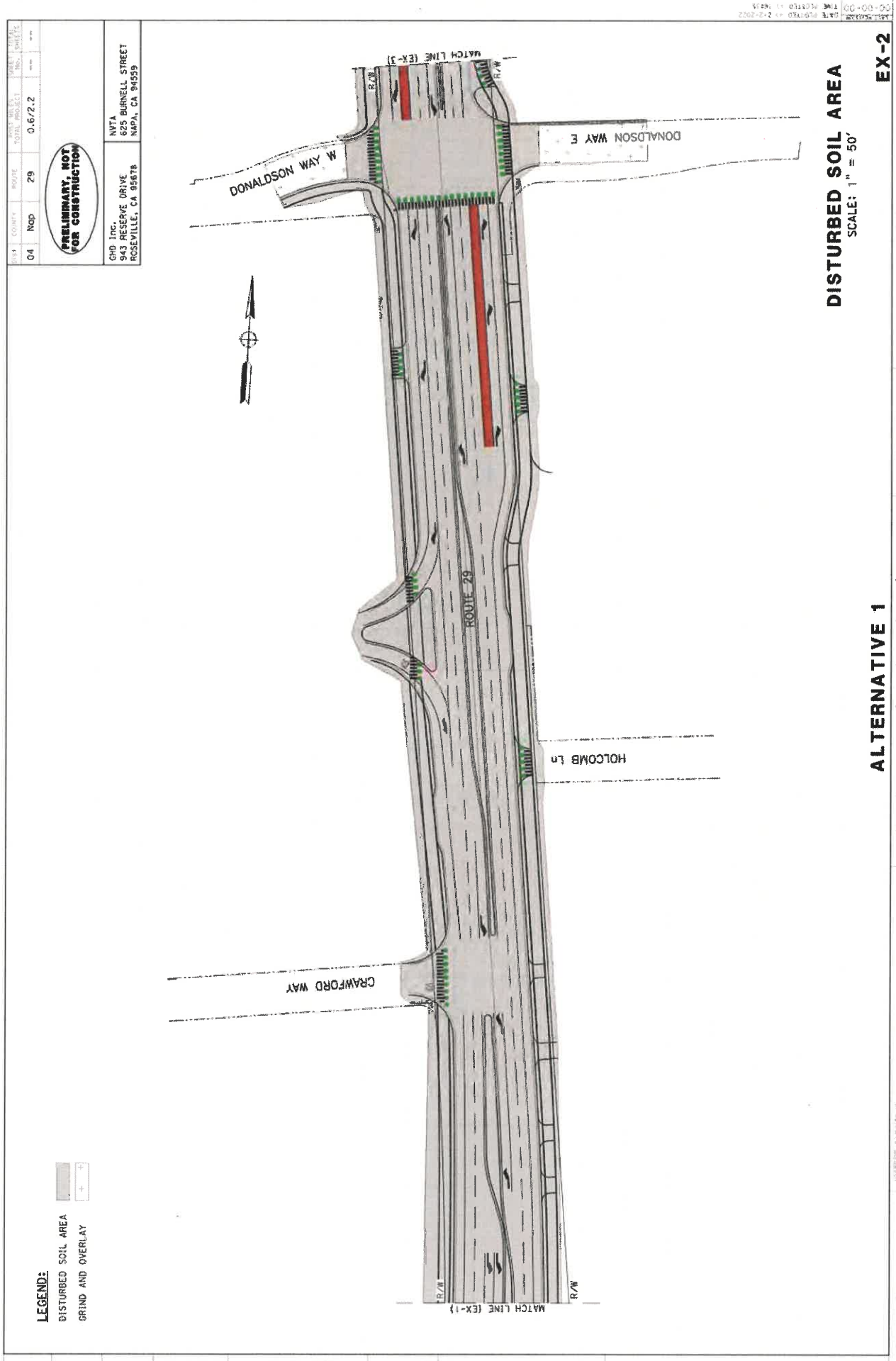
BORDER LAST REVISED 7/2/2010

USERNAME => mpitcock
DGN FILE => 11187559EX004 - DSA ALT 1.DWG

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0419000297


DISTURBED SOIL AREA
SCALE: 1" = 50'
EX-2
ALTERNATIVE 1
PRELIMINARY, NOT FOR CONSTRUCTION
04 Nap 29 0.6/2.2
CHD Inc.
943 RESERVE DRIVE
ROSEVILLE, CA 95678
NVTA
625 BURNELL STREET
NAPA, CA 94559
DONALDSON WAY W
DONALDSON WAY E
MATCH LINE (EX-3)
MATCH LINE (EX-1)
ROUTE 29
HOLCOMB Ln
CRAWFORD WAY
R/W
LEGEND:
DISTURBED SOIL AREA
GRIND AND OVERLAY
RONALD G. BOYLE
LINDSEY VAN PARYS
DELANEY BABCOCK

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

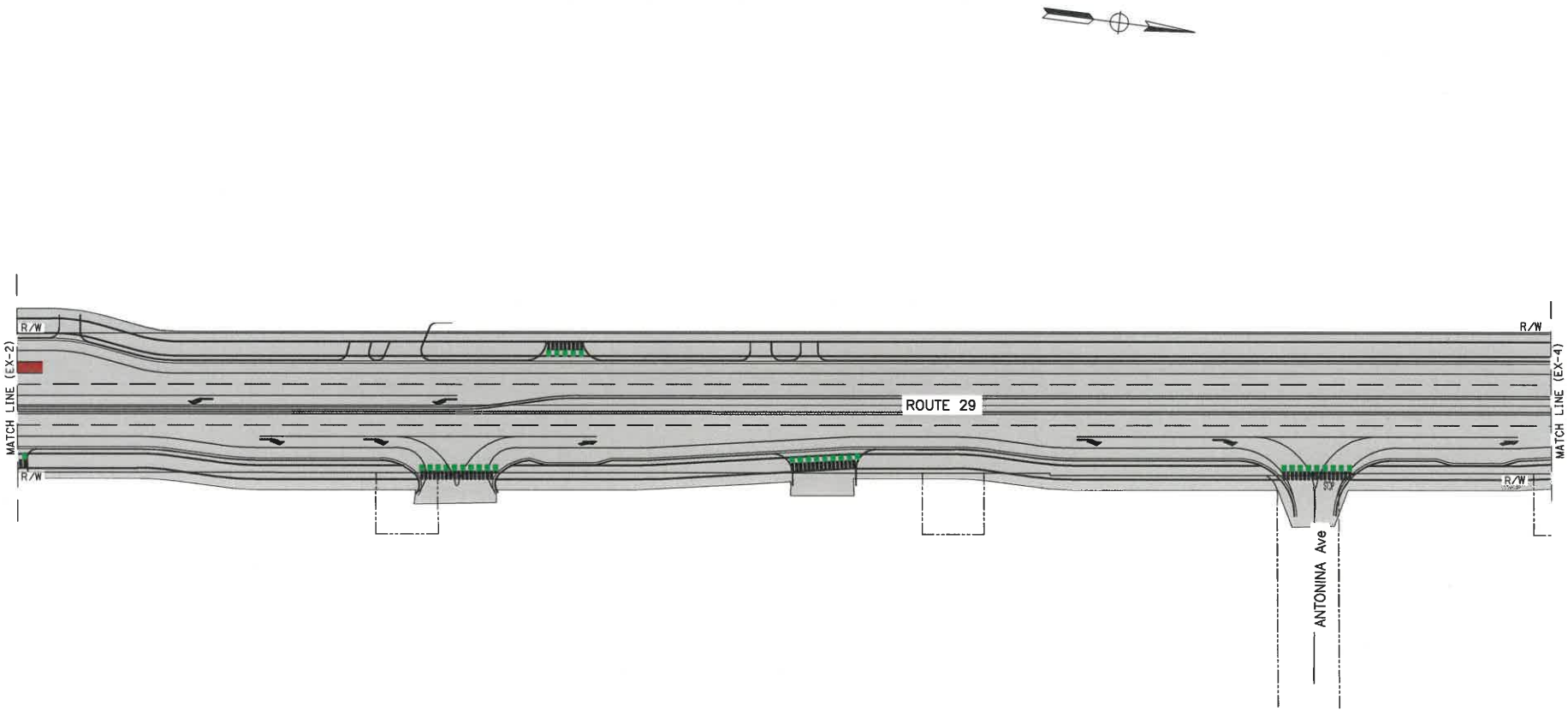
PRELIMINARY, NOT FOR CONSTRUCTION

GHD Inc. 943 RESERVE DRIVE ROSEVILLE, CA 95678	NVTA 625 BURNELL STREET NAPA, CA 94559

LEGEND:

DISTURBED SOIL AREA

GRIND AND OVERLAY + +



DISTURBED SOIL AREA
SCALE: 1" = 50'

ALTERNATIVE 1

EX-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
RONALD G. BOYLE — ASSISTANT FUNCTIONAL SUPERVISOR
CHECKED BY
CALCULATED-DESIGNED BY: LINDSEY VAN PARYS
DELANEY BABCOCK
REVISED BY
DATE REVISED

LAST REVISION | DATE PLOTTED => 2-2-2022
00-00-00 | TIME PLOTTED => 16:35

BORDER LAST REVISED 7/2/2010 | USERNAME => mpittcock
DGN FILE => 11187559EX004 - DSA ALT 1.DWG | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0419000297

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

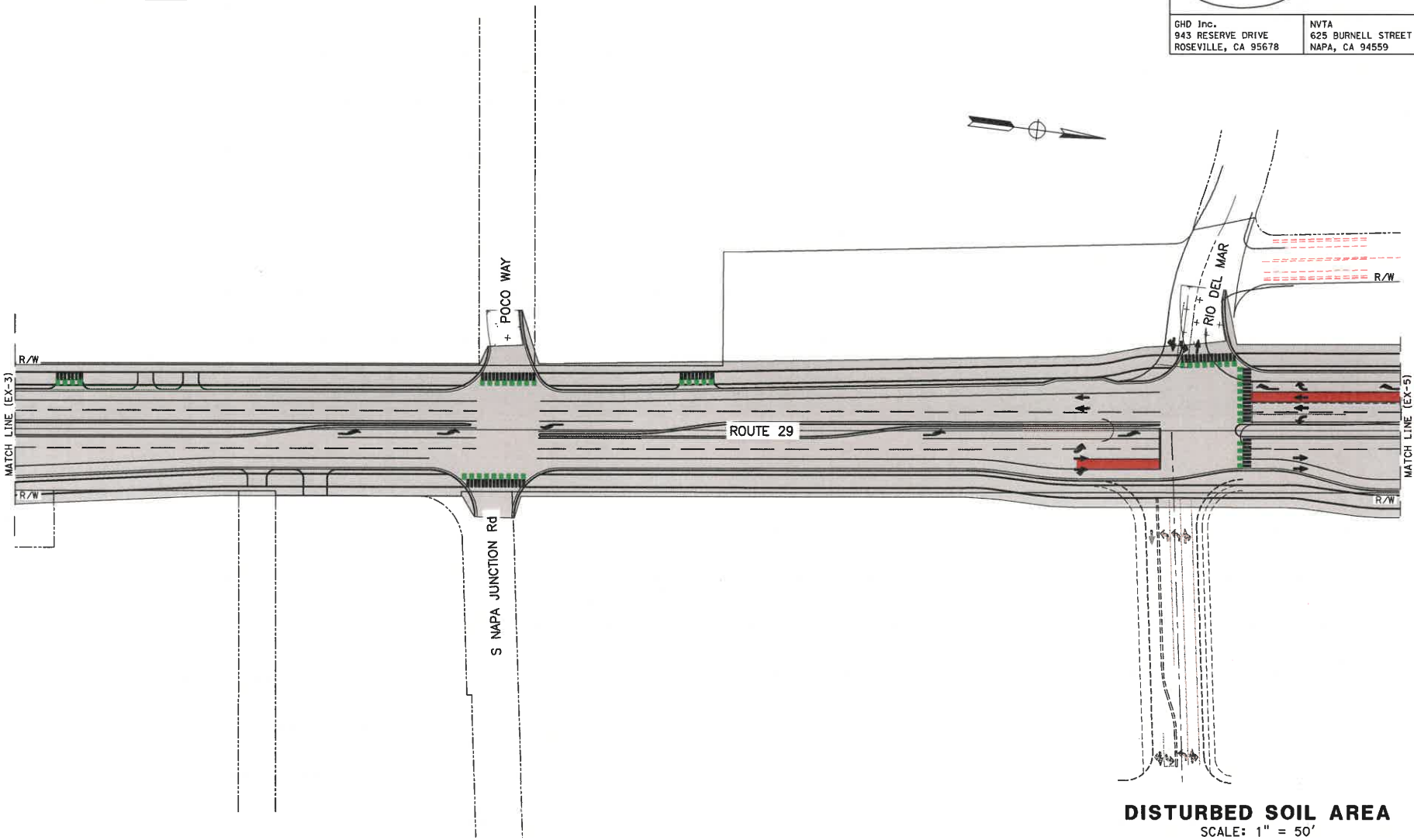
PRELIMINARY, NOT FOR CONSTRUCTION

GHD Inc. 943 RESERVE DRIVE ROSEVILLE, CA 95678	NVTA 625 BURNELL STREET NAPA, CA 94559

LEGEND:

DISTURBED SOIL AREA

GRIND AND OVERLAY



DISTURBED SOIL AREA
SCALE: 1" = 50'

ALTERNATIVE 1

EX-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

RONALD G. BOYLE — DESIGN/ASSISTANT FUNCTIONAL SUPERVISOR

CALCULATED-DESIGNED BY: DELANEY BABCOCK

CHECKED BY: LINDSEY VAN PARYS

REVISED BY

DATE REVISED

LAST REVISION — DATE PLOTTED => 2-2-2022
00-00-00 TIME PLOTTED => 16:35

BORDER LAST REVISED 7/2/2010

USERNAME => mpitcock
DGN FILE => 11187559EX004 - DSA ALT 1.DWG

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0419000297

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

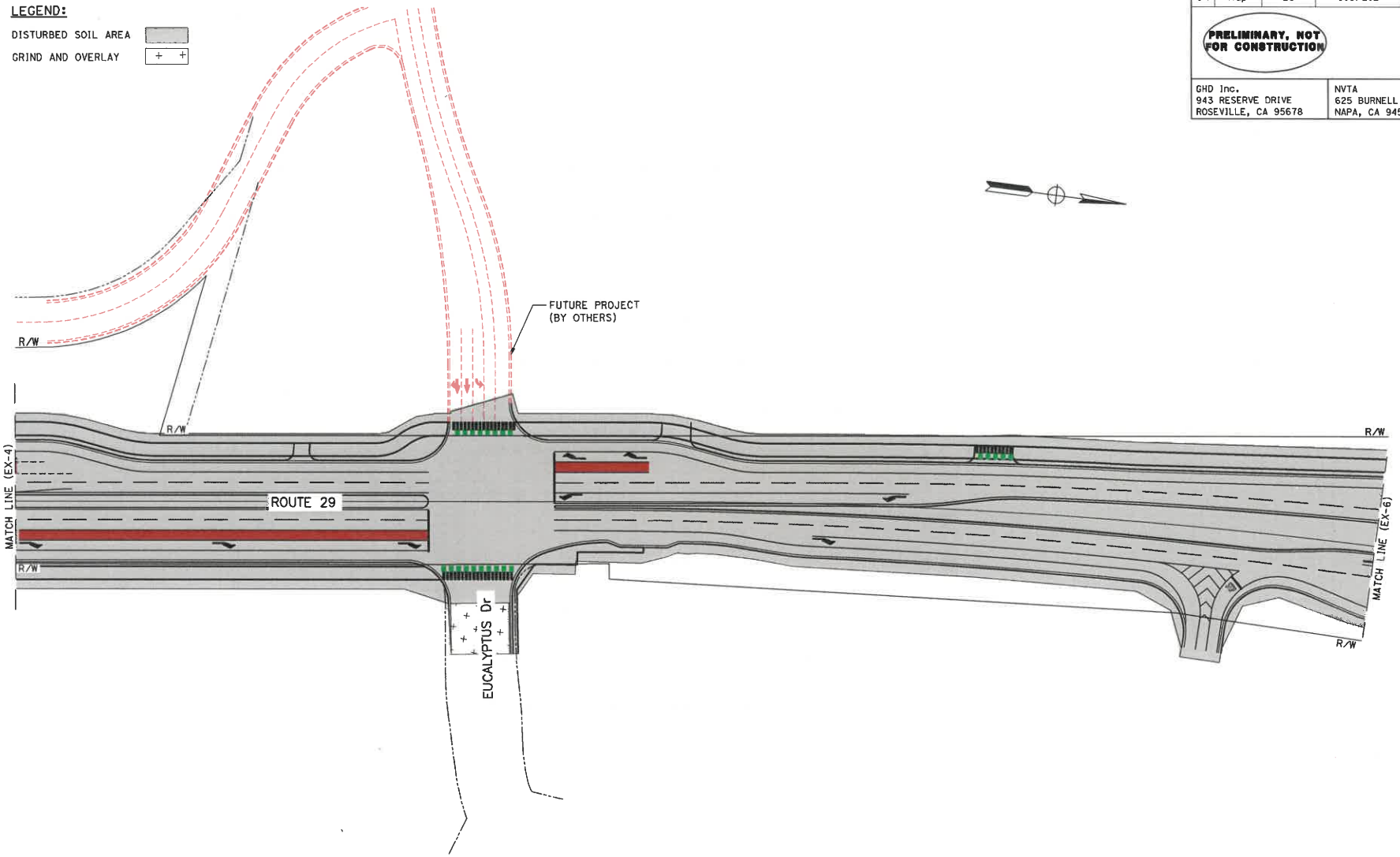
PRELIMINARY, NOT FOR CONSTRUCTION

GHD Inc. 943 RESERVE DRIVE ROSEVILLE, CA 95678	NVTA 625 BURNELL STREET NAPA, CA 94559

LEGEND:

DISTURBED SOIL AREA

GRIND AND OVERLAY



DISTURBED SOIL AREA

SCALE: 1" = 50'

ALTERNATIVE 1

EX-5

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

RONALD G. BOYLE — ASSISTANT FUNCTIONAL SUPERVISOR

CHECKED BY

CALCULATED/DESIGNED BY: DELANEY BABCOCK

LINDSEY VAN PARYS

REVISED BY

DATE REVISED

Caltrans

BORDER LAST REVISED 7/2/2010

USERNAME => mpitcock
DGN FILE => 11187559EX004 - DSA ALT 1.DWG

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0419000297

LAST REVISION 00-00-00

DATE PLOTTED => 2-2-2022
TIME PLOTTED => 16:35

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

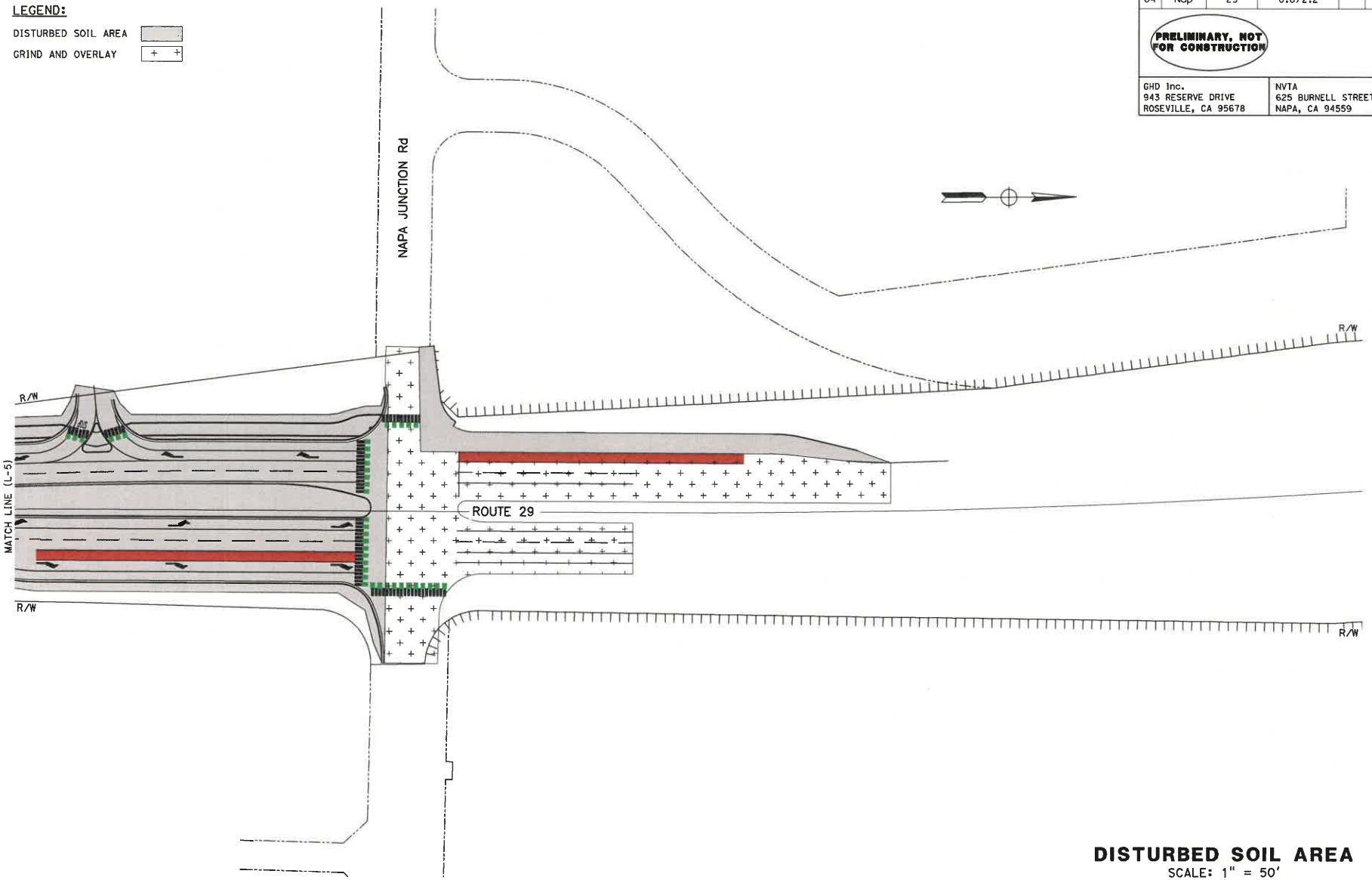
PRELIMINARY, NOT FOR CONSTRUCTION

GHD Inc. 943 RESERVE DRIVE ROSEVILLE, CA 95678	NVTA 625 BURNELL STREET NAPA, CA 94559

LEGEND:

DISTURBED SOIL AREA

GRIND AND OVERLAY



DISTURBED SOIL AREA
SCALE: 1" = 50'

ALTERNATIVE 1

EX-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION Caltrans	RONALD G. BOYLE ASSISTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	DELANEY BABCOCK	REVISED BY	
		CHECKED BY	LINDSEY VAN PARYS	DATE REVISED	

LAST REVISION 00-00-00 DATE PLOTTED => 2-2-2022 TIME PLOTTED => 16:35

BORDER LAST REVISED 7/2/2010 | USERNAME => mpitcock DGN FILE => 11187559EX004 - DSA ALT 1.DWG | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0419000297

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

PRELIMINARY, NOT FOR CONSTRUCTION

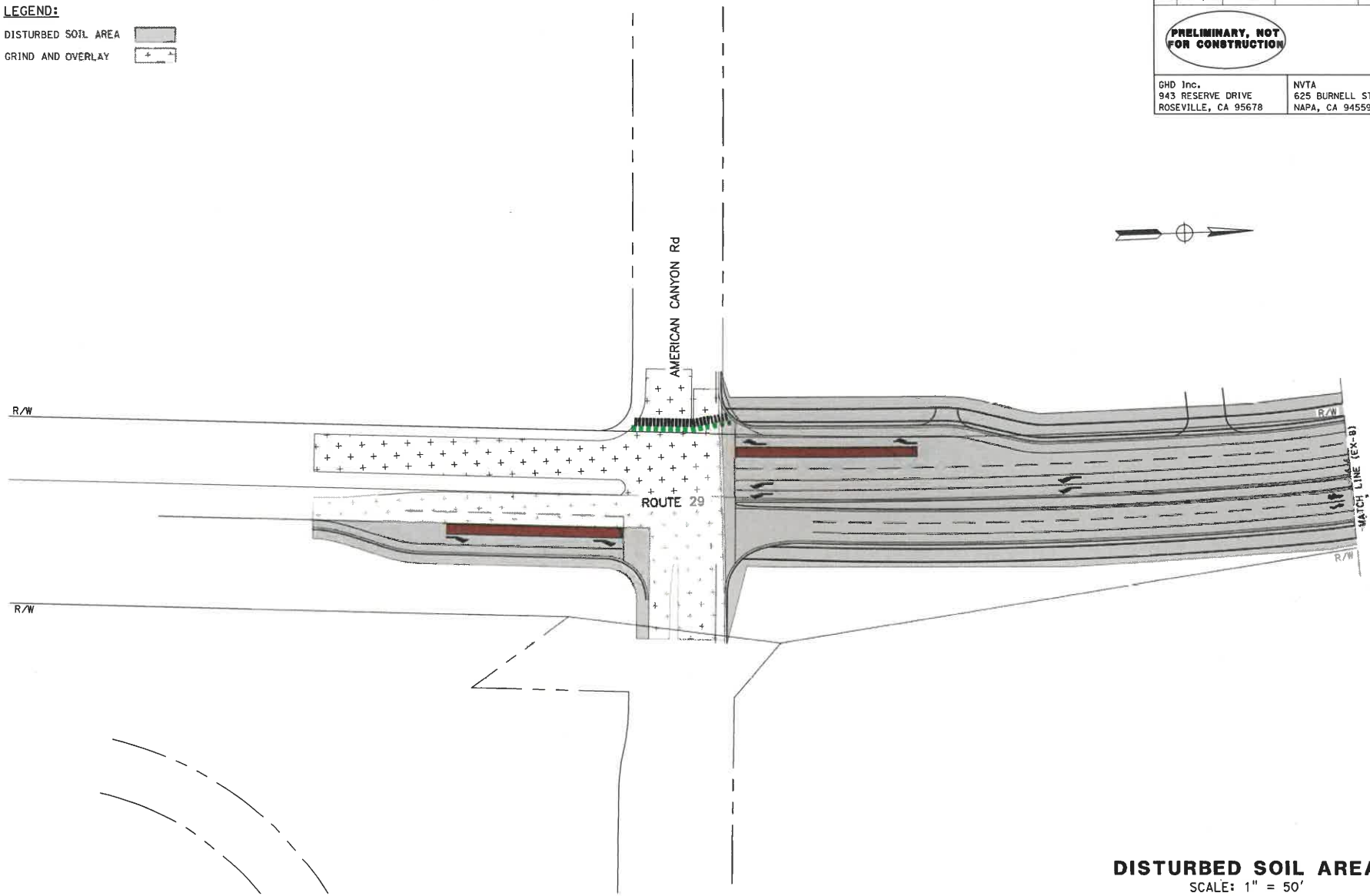
GHD Inc.
943 RESERVE DRIVE
ROSEVILLE, CA 95678

NVTA
625 BURNELL STREET
NAPA, CA 94559

LEGEND:

DISTURBED SOIL AREA

GRIND AND OVERLAY



DISTURBED SOIL AREA

SCALE: 1" = 50'

ALTERNATIVE 2

EX-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

RONALD G. BOYLE — ASSISTANT FUNCTIONAL SUPERVISOR

CHECKED BY

CALCULATED-DESIGNED BY

LINDSEY VAN PARYS

DATE REVISED

REVISED BY

LAST REVISION 00-00-00 | DATE PLOTTED => 2-2-2022 | TIME PLOTTED => 16:54

BORDER LAST REVISED 7/2/2010

USERNAME => mpitcock
DGN FILE => 11187559EX004 – DSA ALT 2.DWG

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0419000297

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

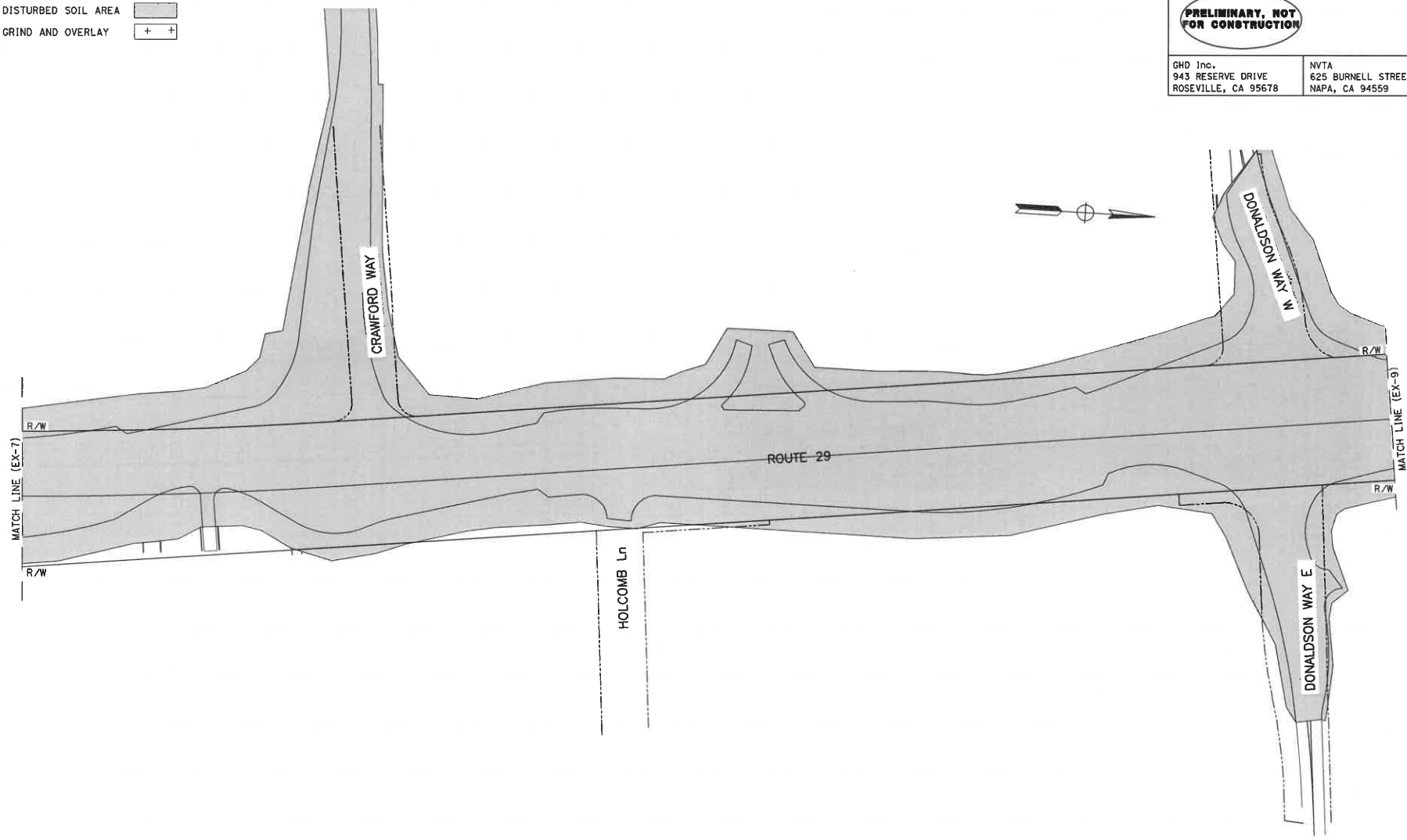
PRELIMINARY, NOT FOR CONSTRUCTION

GHD Inc. 943 RESERVE DRIVE ROSEVILLE, CA 95678	NVTA 625 BURNELL STREET NAPA, CA 94559

LEGEND:

DISTURBED SOIL AREA

GRIND AND OVERLAY



DISTURBED SOIL AREA
SCALE: 1" = 50'

ALTERNATIVE 2

EX-8

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION Caltrans	RONALD G. BOYLE ASSISTANT FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY CHECKED BY	DELANEY BABCOCK LINDSEY VAN PARYS	REVISED BY DATE REVISED	

LAST REVISION 00-00-00 DATE PLOTTED => 2-2-2022 TIME PLOTTED => 16:34

BORDER LAST REVISED 7/2/2010 | USERNAME => mpitcock DGN FILE => 111B7559EX004 - DSA ALT 2.DWG | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0419000297

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

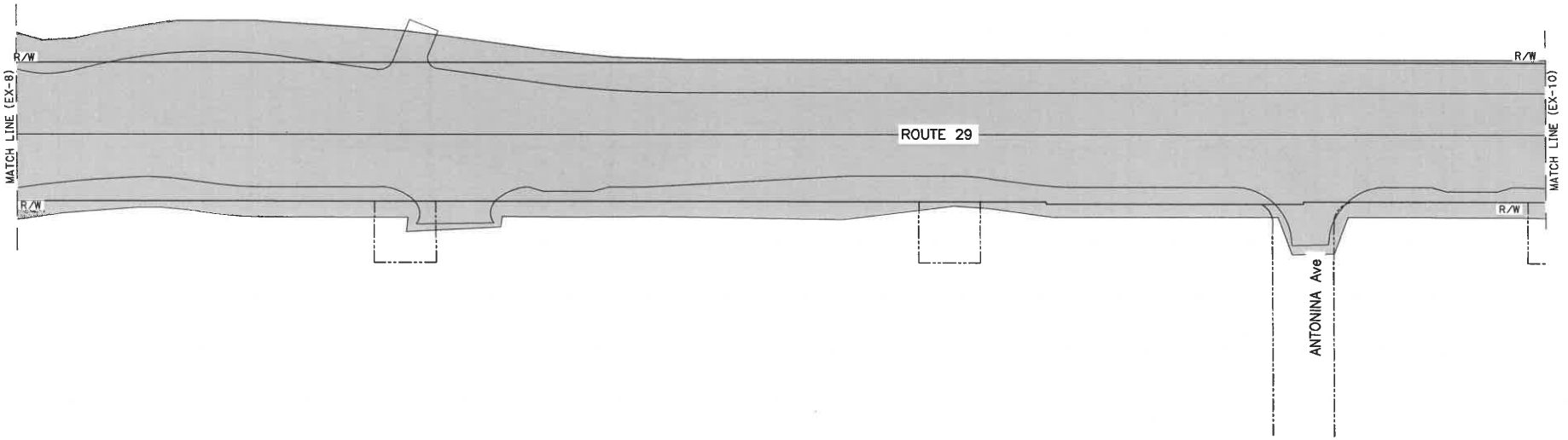
PRELIMINARY, NOT FOR CONSTRUCTION

GHD Inc. 943 RESERVE DRIVE ROSEVILLE, CA 95678	NVTA 625 BURNELL STREET NAPA, CA 94559

LEGEND:

DISTURBED SOIL AREA

GRIND AND OVERLAY



DISTURBED SOIL AREA
SCALE: 1" = 50'

ALTERNATIVE 2

EX-9

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
RONALD G. BOYLE
ASSISTANT FUNCTIONAL SUPERVISOR
CALCULATED-DESIGNED BY
CHECKED BY
DELANEY BABCOCK
LINDSEY VAN PARYS
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 2-2-2022
00-00-00 TIME PLOTTED => 16:54

BORDER LAST REVISED 7/2/2010 | USERNAME => mpitcock
DGN FILE => 11187559EX004 - DSA ALT 2.DWG | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0419000297

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

PRELIMINARY, NOT FOR CONSTRUCTION

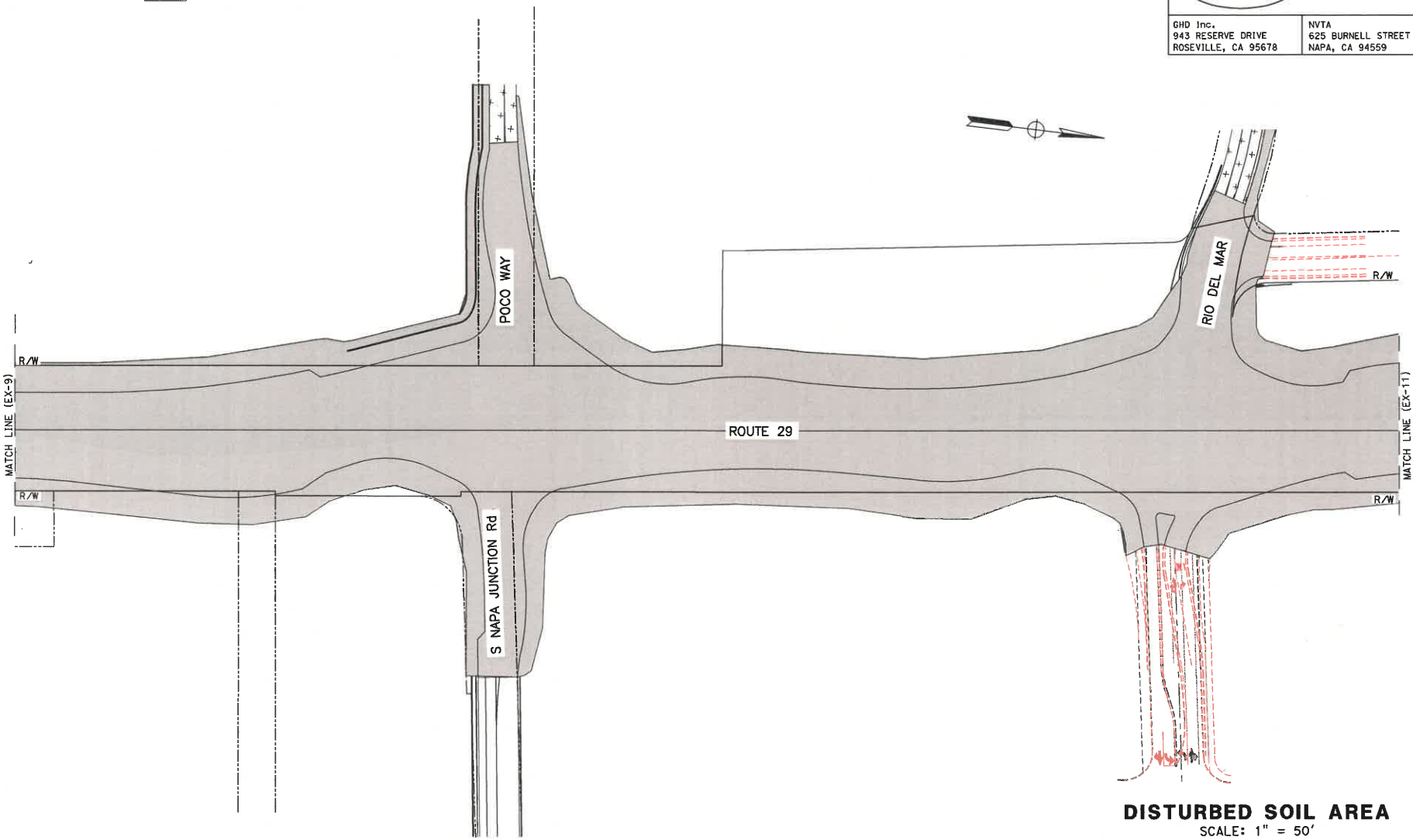
GHD Inc.
943 RESERVE DRIVE
ROSEVILLE, CA 95678

NVTA
625 BURNELL STREET
NAPA, CA 94559

LEGEND:

DISTURBED SOIL AREA

GRIND AND OVERLAY



DISTURBED SOIL AREA
SCALE: 1" = 50'

ALTERNATIVE 2

EX-10

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
RONALD G. BOYLE
ASSISTANT FUNCTIONAL SUPERVISOR
CALCULATED-DESIGNED BY
CHECKED BY
DELANEY BABCOCK
LINDSEY VAN PARYS
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 2-2-2022
00-00-00 TIME PLOTTED => 16:34

BORDER LAST REVISED 7/2/2010
USERNAME => mpittcock
DGN FILE => 11187559EX004 - DSA ALT 2.DWG
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0000
PROJECT NUMBER & PHASE 0419000297

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

PRELIMINARY, NOT FOR CONSTRUCTION

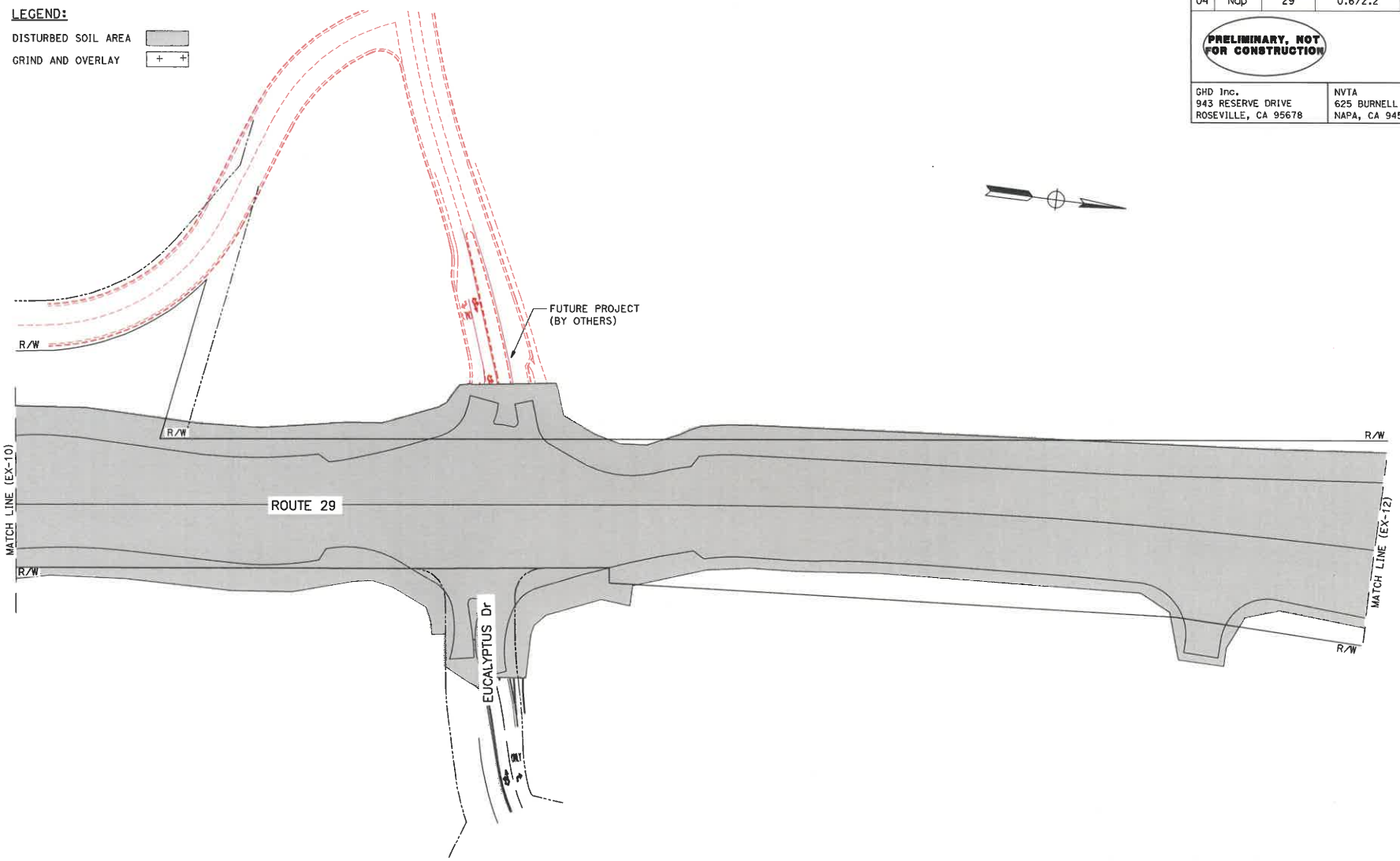
GHD Inc.
943 RESERVE DRIVE
ROSEVILLE, CA 95678

NVTA
625 BURNELL STREET
NAPA, CA 94559

LEGEND:

DISTURBED SOIL AREA

GRIND AND OVERLAY



DISTURBED SOIL AREA

SCALE: 1" = 50'

ALTERNATIVE 2

EX-11

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

RONALD G. BOYLE
ASSISTANT FUNCTIONAL SUPERVISOR

CALCULATED-DESIGNED BY: DELANEY BABCOCK
CHECKED BY: LINDSEY VAN PARYS

REVISED BY
DATE REVISED

LAST REVISION
DATE PLOTTED => 2-2-2022
00-00-00 TIME PLOTTED => 16:34

BORDER LAST REVISED 7/2/2010

USERNAME => mpitcock
DGN FILE => 11187559EX004 - DSA ALT 2.DWG

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0419000297

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

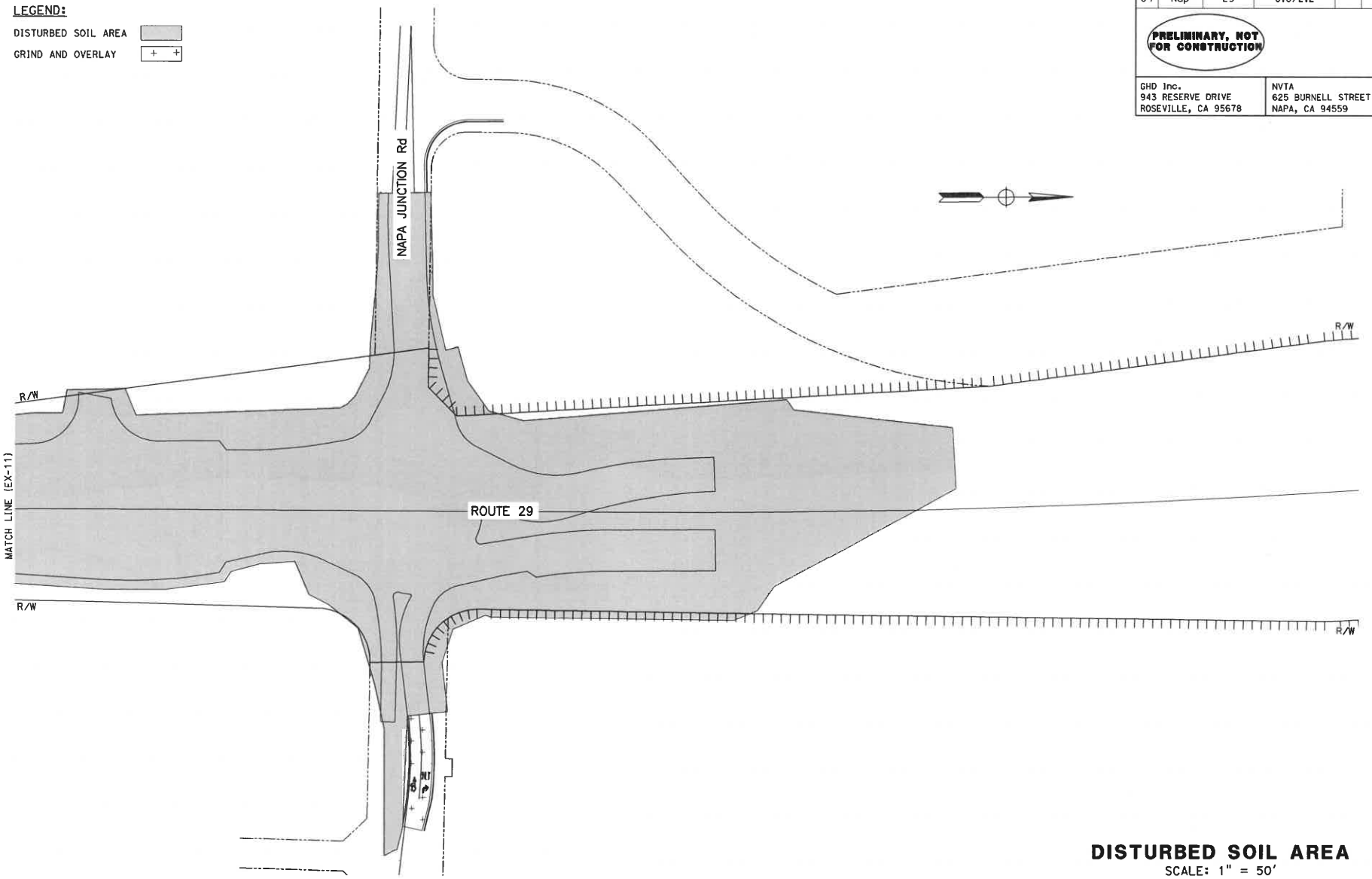
PRELIMINARY, NOT FOR CONSTRUCTION

GHD Inc. 943 RESERVE DRIVE ROSEVILLE, CA 95678	NVTA 625 BURNELL STREET NAPA, CA 94559

LEGEND:

DISTURBED SOIL AREA

GRIND AND OVERLAY



DISTURBED SOIL AREA

SCALE: 1" = 50'

ALTERNATIVE 2

EX-12

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY	CHECKED BY
DELANEY BABCOCK	LINDSEY VAN PARYS

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

RONALD G. BOYLE

ASSISTANT FUNCTIONAL SUPERVISOR

LAST REVISION 00-00-00 | DATE PLOTTED => 2-2-2022 | TIME PLOTTED => 16:34

BORDER LAST REVISED 7/2/2010 | USERNAME => mpitcock | DGN FILE => 11187559EX004 - DSA ALT 2.DWG | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0419000297

ATTACHMENT 8

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

PRELIMINARY, NOT FOR CONSTRUCTION

GHD Inc.
943 RESERVE DRIVE
ROSEVILLE, CA 95678

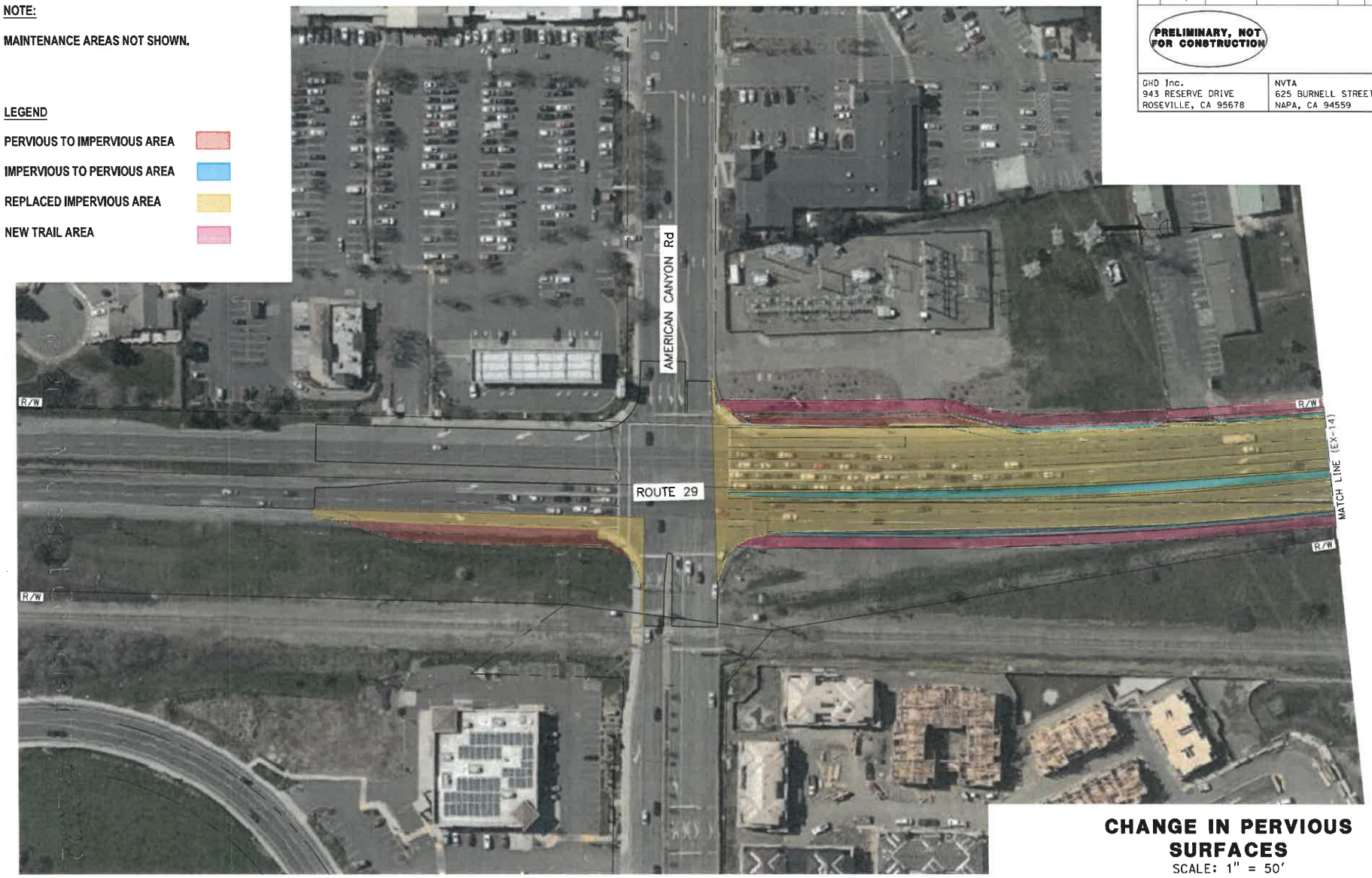
NVTA
625 BURNELL STREET
NAPA, CA 94559

NOTE:

MAINTENANCE AREAS NOT SHOWN.

LEGEND

- PERVIOUS TO IMPERVIOUS AREA
- IMPERVIOUS TO PERVIOUS AREA
- REPLACED IMPERVIOUS AREA
- NEW TRAIL AREA



CHANGE IN PERVIOUS SURFACES

SCALE: 1" = 50'

ALTERNATIVE 1

EX-13

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans
RONALD G. BOYLE
ASSISTANT FUNCTIONAL SUPERVISOR
CALCULATED-DESIGNED BY
DELANEY BABCOCK
CHECKED BY
LINDSEY VAN PARYS
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 2-4-2022
00-00-00 TIME PLOTTED => 07:30

BORDER LAST REVISED 7/2/2010
USERNAME => mpitcock
DGN FILE => 11187559EX004 - IAS ALT 1.DWG
RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3
UNIT 0000
PROJECT NUMBER & PHASE 0419000297

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

PRELIMINARY, NOT FOR CONSTRUCTION

GHD Inc.
943 RESERVE DRIVE
ROSEVILLE, CA 95678

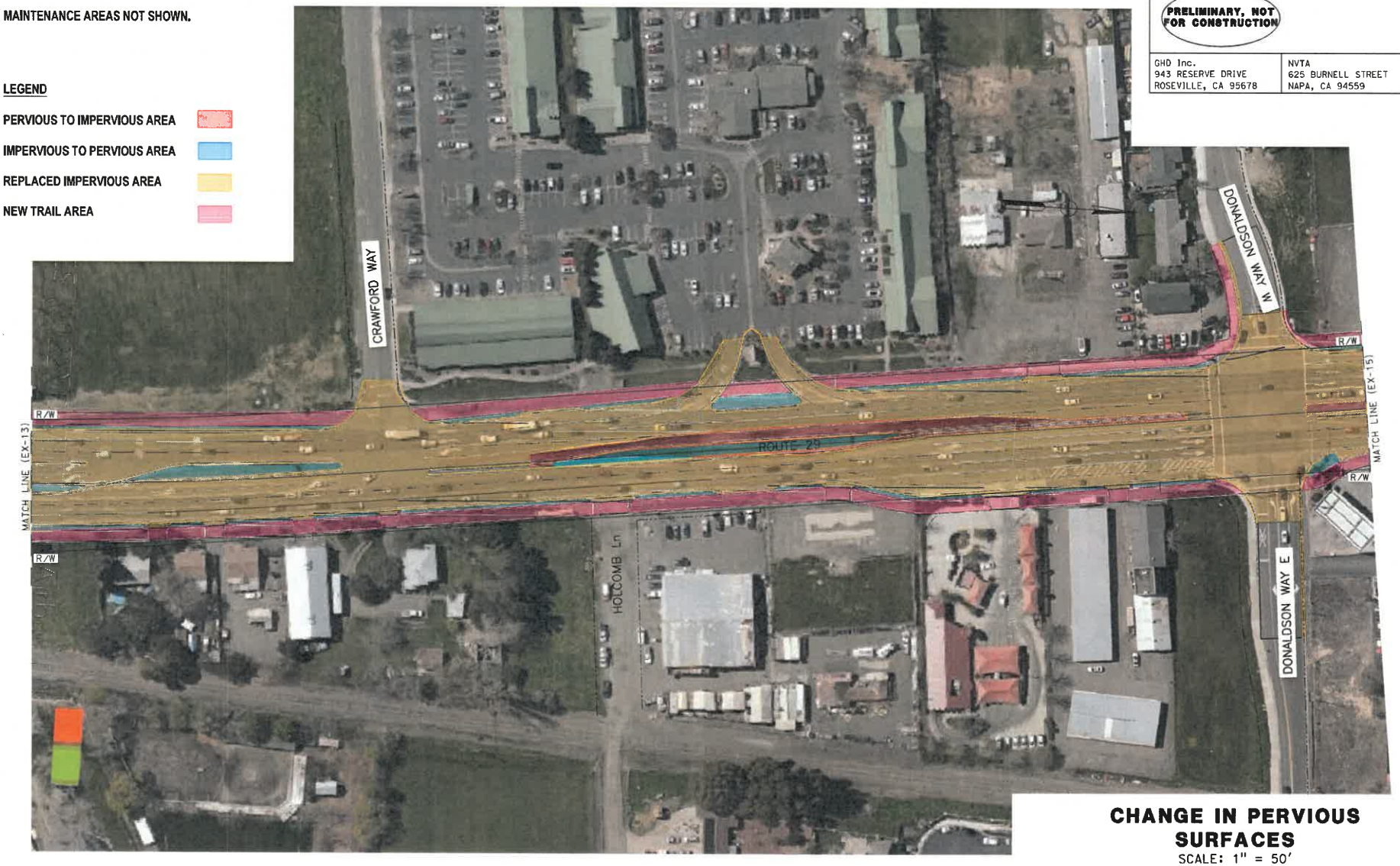
NVTA
625 BURNELL STREET
NAPA, CA 94559

NOTE:

MAINTENANCE AREAS NOT SHOWN.

LEGEND

- PERVIOUS TO IMPERVIOUS AREA
- IMPERVIOUS TO PERVIOUS AREA
- REPLACED IMPERVIOUS AREA
- NEW TRAIL AREA



CHANGE IN PERVIOUS SURFACES

SCALE: 1" = 50'

ALTERNATIVE 1

EX-14

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	RONALD G. BOYLE	CALCULATED-DESIGNED BY	DELANEY BABCOCK	REVISED BY	
Caltrans		CHECKED BY	LINDSEY VAN PARYS	DATE REVISED	

DISTRICT/REGIONAL/OFFICE CHIEF FUNCTIONAL SUPERVISOR

BORDER LAST REVISED 7/2/2010

USERNAME => mpitcock
DGN FILE => \\1187559EX004 - 1AS ALT 1.DWG

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0419000297

LAST REVISION (00-00-00) DATE PLOTTED => 2-4-2022 TIME PLOTTED => 07:30

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

PRELIMINARY, NOT FOR CONSTRUCTION

GHD Inc. 943 RESERVE DRIVE ROSEVILLE, CA 95678	NVTA 625 BURNELL STREET NAPA, CA 94559

NOTE:

MAINTENANCE AREAS NOT SHOWN.

LEGEND

PERVIOUS TO IMPERVIOUS AREA

IMPERVIOUS TO PERVIOUS AREA

REPLACED IMPERVIOUS AREA

NEW TRAIL AREA



CHANGE IN PERVIOUS SURFACES
SCALE: 1" = 50'

ALTERNATIVE 1

EX-15

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
RONALD G. BOYLE
ASSISTANT FUNCTIONAL SUPERVISOR
CALCULATED-DESIGNED BY
CHECKED BY
DELANEY BABCOCK
LINDSEY VAN PARYS
REVISED BY
DATE REVISED

LAST REVISION | DATE PLOTTED => 2-4-2022
00-00-00 | TIME PLOTTED => 07:31

BORDER LAST REVISED 7/2/2010 | USERNAME => mpitcock
DGN FILE => 11187559EX004 - IAS ALT 1.DWG | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0419000297

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

PRELIMINARY, NOT FOR CONSTRUCTION

GHD Inc. 943 RESERVE DRIVE ROSEVILLE, CA 95678	NVTA 625 BURNELL STREET NAPA, CA 94559

NOTE:

MAINTENANCE AREAS NOT SHOWN.

LEGEND

- PERVIOUS TO IMPERVIOUS AREA
- IMPERVIOUS TO PERVIOUS AREA
- REPLACED IMPERVIOUS AREA
- NEW TRAIL AREA



CHANGE IN PERVIOUS SURFACES

SCALE: 1" = 50'

ALTERNATIVE 1

EX-16

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

REVISED BY	DATE REVISED

DESIGN MANAGER: RONALD G. BOYLE

CALCULATED-DESIGNED BY: DELANEY BABCOCK

CHECKED BY: LINDSEY VAN PARYS

LAST REVISION [00-00-00] DATE PLOTTED => 2-4-2022 TIME PLOTTED => 07:31

BORDER LAST REVISED 7/2/2010

USERNAME => mpitcock
DGN FILE => 11187559EX004 - IAS ALT 1.DWG

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0419000297

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

PRELIMINARY, NOT FOR CONSTRUCTION

GHD Inc. 943 RESERVE DRIVE ROSEVILLE, CA 95678	NVTA 625 BURNELL STREET NAPA, CA 94559

NOTE:

MAINTENANCE AREAS NOT SHOWN.

LEGEND

- PERVIOUS TO IMPERVIOUS AREA
- IMPERVIOUS TO PERVIOUS AREA
- REPLACED IMPERVIOUS AREA
- NEW TRAIL AREA



CHANGE IN PERVIOUS SURFACES

SCALE: 1" = 50'

ALTERNATIVE 1

EX-17

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
RONALD G. BOYLE
ASSISTANT FUNCTIONAL SUPERVISOR
CALCULATED-DESIGNED BY
CHECKED BY
DELANEY BABCOCK
LINDSEY VAN PARYS
REVISED BY
DATE REVISED

LAST REVISION | DATE PLOTTED => 2-4-2022
00-00-00 | TIME PLOTTED => 07:43

BORDER LAST REVISED 7/2/2010 | USERNAME => mpitcock
DGN FILE => 11187559EX004 - IAS ALT 1.DWG | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0419000297

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

PRELIMINARY, NOT FOR CONSTRUCTION

GHD Inc.
943 RESERVE DRIVE
ROSEVILLE, CA 95678

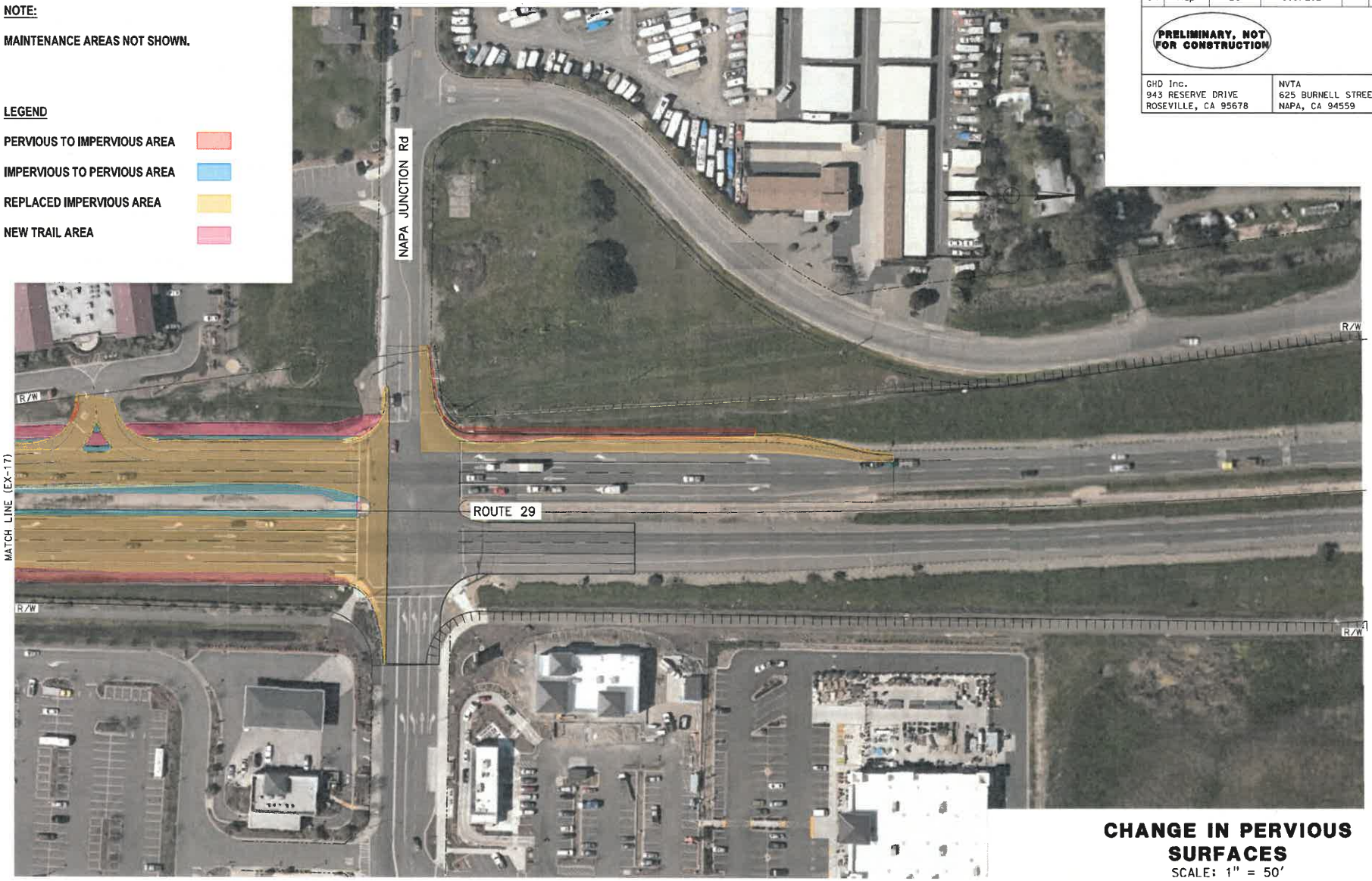
NVTA
625 BURNELL STREET
NAPA, CA 94559

NOTE:

MAINTENANCE AREAS NOT SHOWN.

LEGEND

- PERVIOUS TO IMPERVIOUS AREA
- IMPERVIOUS TO PERVIOUS AREA
- REPLACED IMPERVIOUS AREA
- NEW TRAIL AREA



CHANGE IN PERVIOUS SURFACES

SCALE: 1" = 50'

ALTERNATIVE 1

EX-18

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ASSISTANT FUNCTIONAL SUPERVISOR: RONALD C. BOYLE
CALCULATED-DESIGNED BY: DELANEY BABCOCK
CHECKED BY: LINDSEY VAN PARYS
REVISED BY
DATE REVISED

LAST REVISION DATE PLOTTED => 2-4-2022
00-00-00 TIME PLOTTED => 07:43

BORDER LAST REVISED 7/2/2010

USERNAME => mpitcock
DGN FILE => 11187559EX004 -- IAS ALT 1.DWG

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0419000297

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

PRELIMINARY, NOT FOR CONSTRUCTION

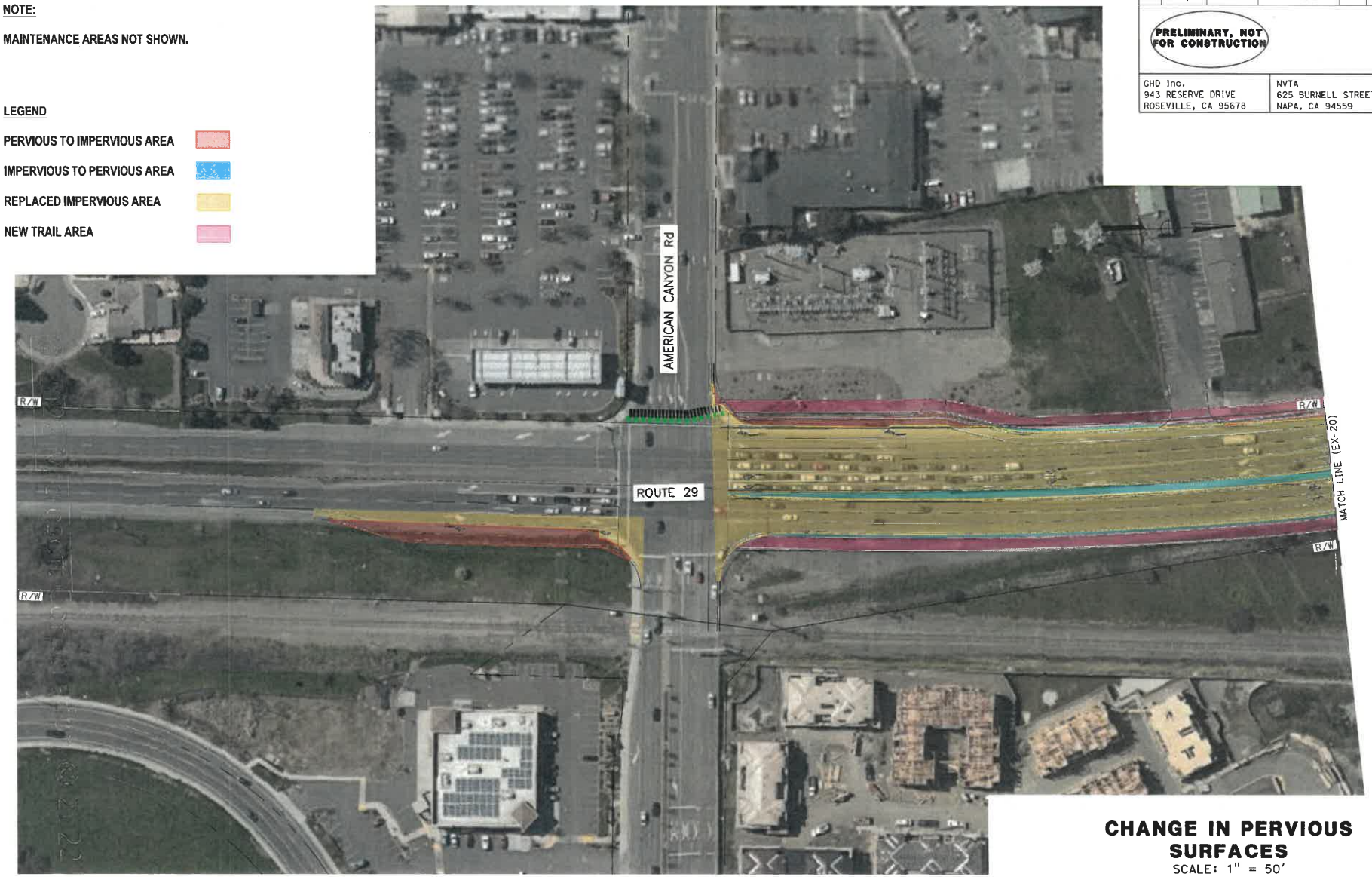
GHD Inc. 943 RESERVE DRIVE ROSEVILLE, CA 95678	NVTA 625 BURNELL STREET NAPA, CA 94559

NOTE:

MAINTENANCE AREAS NOT SHOWN.

LEGEND

- PERVIOUS TO IMPERVIOUS AREA
- IMPERVIOUS TO PERVIOUS AREA
- REPLACED IMPERVIOUS AREA
- NEW TRAIL AREA



CHANGE IN PERVIOUS SURFACES
SCALE: 1" = 50'

ALTERNATIVE 2

EX-19

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
RONALD G. BOYLE — ASSISTANT FUNCTIONAL SUPERVISOR
CALCULATED-DESIGNED BY: DELANEY BABCOCK
CHECKED BY: LINDSEY VAN PARYS
REVISED BY
DATE REVISED

LAST REVISION — DATE PLOTTED => 2-3-2022
00-00-00 — TIME PLOTTED => 15:45

BORDER LAST REVISED 7/2/2010 | USERNAME => mpitcock | DGN FILE => 11187559EX004 - IAS ALT 2.DWG | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0419000297

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

PRELIMINARY, NOT FOR CONSTRUCTION

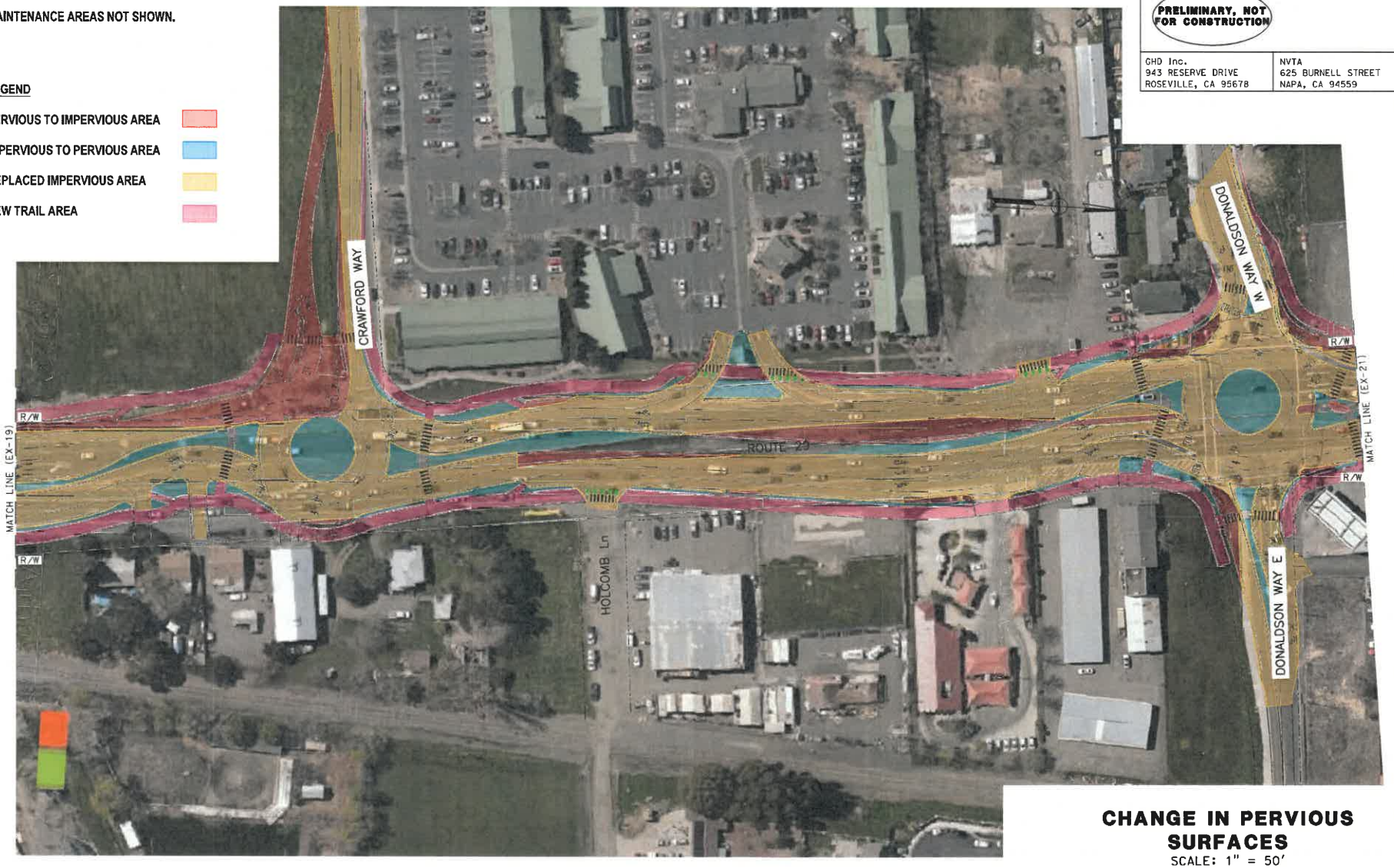
GHD Inc. 943 RESERVE DRIVE ROSEVILLE, CA 95678	NVTA 625 BURNELL STREET NAPA, CA 94559

NOTE:

MAINTENANCE AREAS NOT SHOWN.

LEGEND

- PERVIOUS TO IMPERVIOUS AREA
- IMPERVIOUS TO PERVIOUS AREA
- REPLACED IMPERVIOUS AREA
- NEW TRAIL AREA



CHANGE IN PERVIOUS SURFACES

SCALE: 1" = 50'

ALTERNATIVE 2

EX-20

REVISED BY	DATE REVISED

CALCULATED-DESIGNED BY	CHECKED BY
DELANEY BABCOCK	LINDSEY VAN PARYS

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

RONALD G. BOYLE
DESIGN ASSISTANT FUNCTIONAL SUPERVISOR

Caltrans

LAST REVISION 00-00-00 | DATE PLOTTED => 2-3-2022 | TIME PLOTTED => 15:46

BORDER LAST REVISED 7/2/2010 | USERNAME => mpitcock | DGN FILE => 11187559EX004 - IAS ALT 2.DWG | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0419000297

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

PRELIMINARY, NOT FOR CONSTRUCTION

GHD Inc. 943 RESERVE DRIVE ROSEVILLE, CA 95678	NVTA 625 BURNELL STREET NAPA, CA 94559

NOTE:

MAINTENANCE AREAS NOT SHOWN.

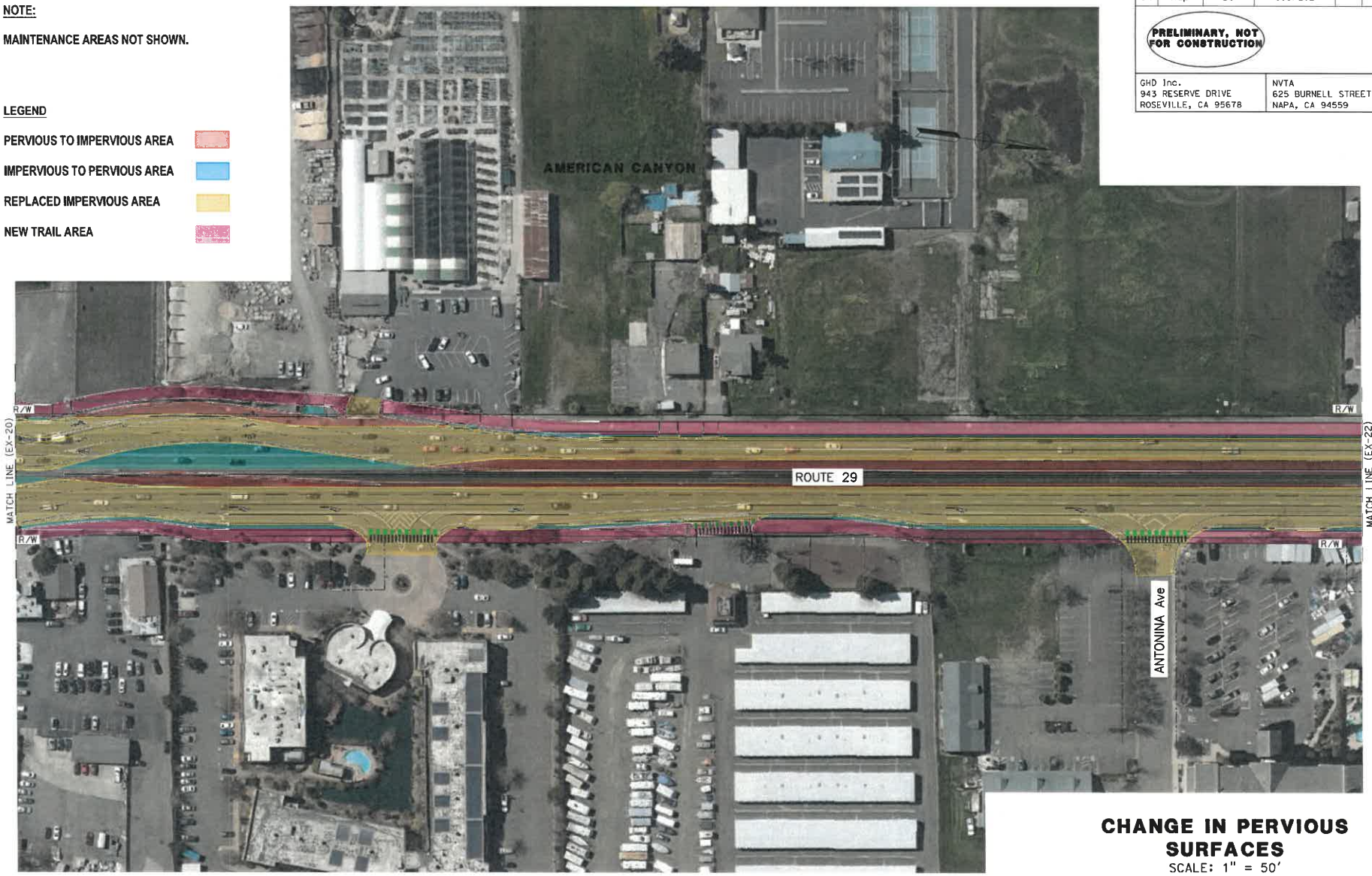
LEGEND

PERVIOUS TO IMPERVIOUS AREA

IMPERVIOUS TO PERVIOUS AREA

REPLACED IMPERVIOUS AREA

NEW TRAIL AREA



CHANGE IN PERVIOUS SURFACES

SCALE: 1" = 50'

ALTERNATIVE 2

EX-21

CALCULATED-DESIGNED BY	DELANEY BABCOCK	REVISED BY			
CHECKED BY	LINDSEY VAN PARYS	DATE REVISED			
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION ASSISTANT FUNCTIONAL SUPERVISOR RONALD G. BOYLE					

LAST REVISION 00-00-00 | DATE PLOTTED => 2-3-2022 | TIME PLOTTED => 15:46

BORDER LAST REVISED 7/2/2010 | USERNAME => mpitcock | DGN FILE => 11187559EX004 - IAS ALT 2.DWG | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0419000297

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

PRELIMINARY, NOT FOR CONSTRUCTION

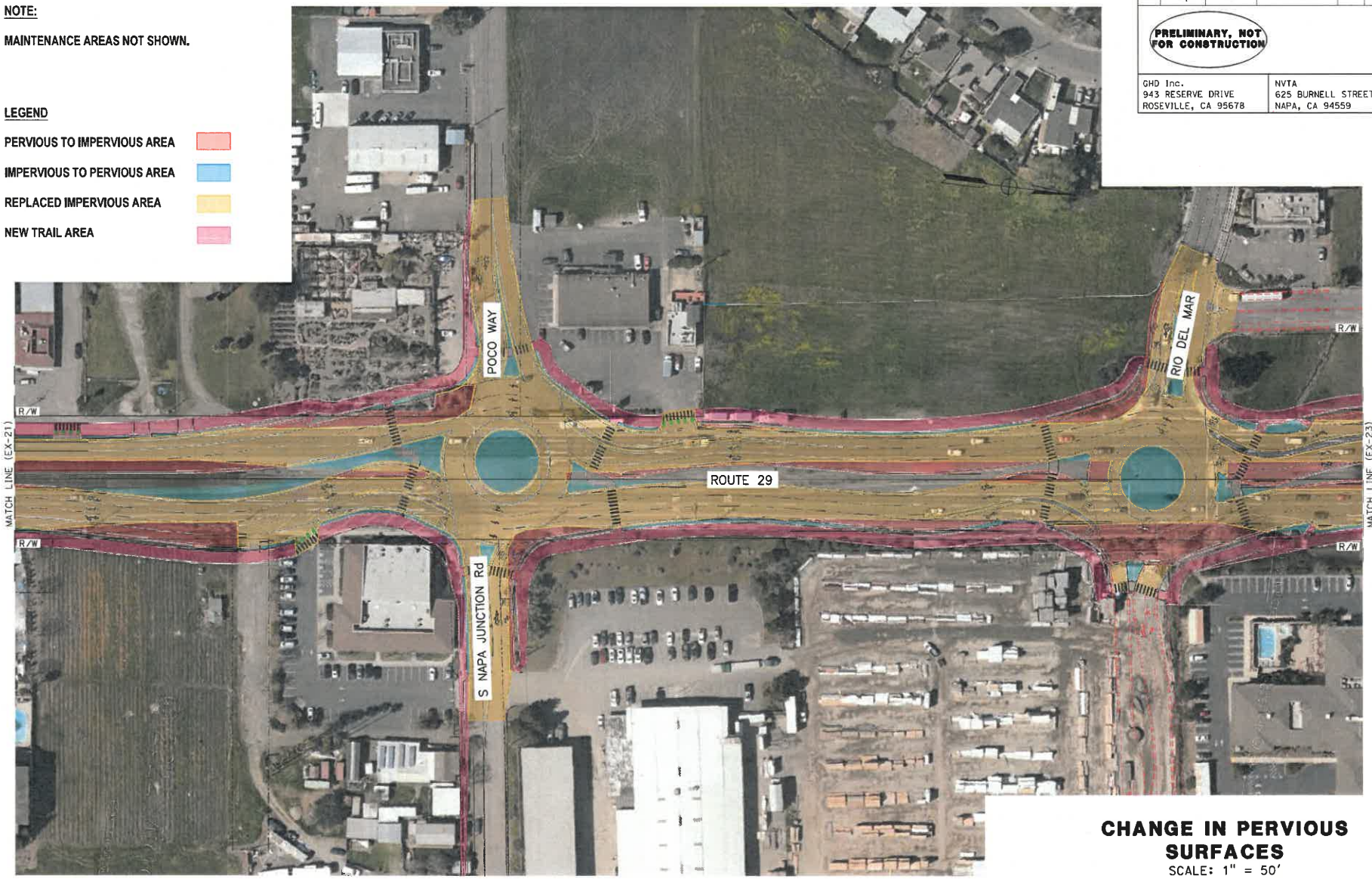
GHD Inc. 943 RESERVE DRIVE ROSEVILLE, CA 95678	NVTA 625 BURNELL STREET NAPA, CA 94559

NOTE:

MAINTENANCE AREAS NOT SHOWN.

LEGEND

- PERVIOUS TO IMPERVIOUS AREA
- IMPERVIOUS TO PERVIOUS AREA
- REPLACED IMPERVIOUS AREA
- NEW TRAIL AREA



CHANGE IN PERVIOUS SURFACES

SCALE: 1" = 50'

ALTERNATIVE 2

EX-22

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
RONALD G. BOYLE
ASSISTANT FUNCTIONAL SUPERVISOR
CALCULATED-DESIGNED BY: DELANEY BABCOCK
CHECKED BY: LINDSEY VAN PARYS
REVISED BY
DATE REVISED

LAST REVISION | DATE PLOTTED => 2-3-2022
00-00-00 | TIME PLOTTED => 15:47

BORDER LAST REVISED 7/2/2010 | USERNAME => mpitcock | DGN FILE => 11187559EX004 - IAS ALT 2.DWG | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0419000297

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

PRELIMINARY, NOT FOR CONSTRUCTION

GHD Inc. 943 RESERVE DRIVE ROSEVILLE, CA 95678	NVTA 625 BURNELL STREET NAPA, CA 94559

NOTE:

MAINTENANCE AREAS NOT SHOWN.

LEGEND

- PERVIOUS TO IMPERVIOUS AREA
- IMPERVIOUS TO PERVIOUS AREA
- REPLACED IMPERVIOUS AREA
- NEW TRAIL AREA



CHANGE IN PERVIOUS SURFACES

SCALE: 1" = 50'

ALTERNATIVE 2

EX-23

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

REVISED BY	DATE REVISED
DELANEY BABCOCK	LINDSEY VAN PARYS

CALCULATED-DESIGNED BY

CHECKED BY

ASSISTANT FUNCTIONAL SUPERVISOR

RONALD G. BOYLE

LAST REVISION 00-00-00 DATE PLOTTED => 2-9-2022 TIME PLOTTED => 15:47

BORDER LAST REVISED 7/2/2010

USERNAME => mpitcock
DGN FILE => 11187559EX004 - IAS ALT 2.DWG

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0419000297

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

PRELIMINARY, NOT FOR CONSTRUCTION

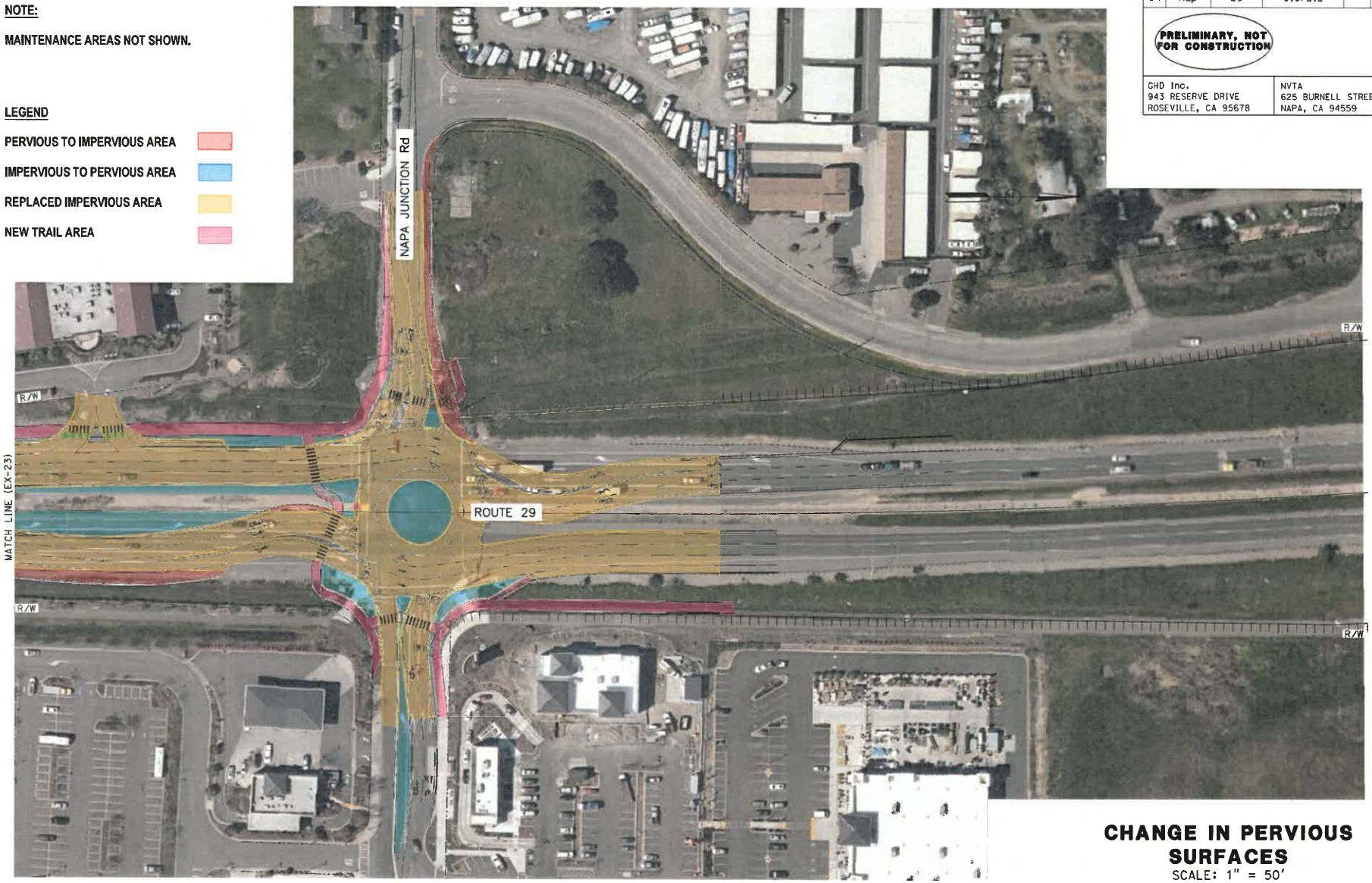
CHD Inc. 943 RESERVE DRIVE ROSEVILLE, CA 95678	NVTA 625 BURNELL STREET NAPA, CA 94559

NOTE:

MAINTENANCE AREAS NOT SHOWN.

LEGEND

- PERVIOUS TO IMPERVIOUS AREA
- IMPERVIOUS TO PERVIOUS AREA
- REPLACED IMPERVIOUS AREA
- NEW TRAIL AREA



CHANGE IN PERVIOUS SURFACES

SCALE: 1" = 50'

ALTERNATIVE 2

EX-24

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

REVISED BY	DATE REVISED	DESIGNED BY	CHECKED BY	ASSISTANT FUNCTIONAL SUPERVISOR
DELANEY BABCOCK	LINDSEY VAN PARYS	CALCULATED-		RONALD G. BOYLE

LAST REVISION 00-00-00 DATE PLOTTED => 2-3-2022 TIME PLOTTED => 15:47

BORDER LAST REVISED 7/2/2010 | USERNAME => mpitcock DGN FILE => 11187559EX004 – IAS ALT 2.DWG | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 0419000297

ATTACHMENT 13

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	--	--

PRELIMINARY - NOT FOR CONSTRUCTION

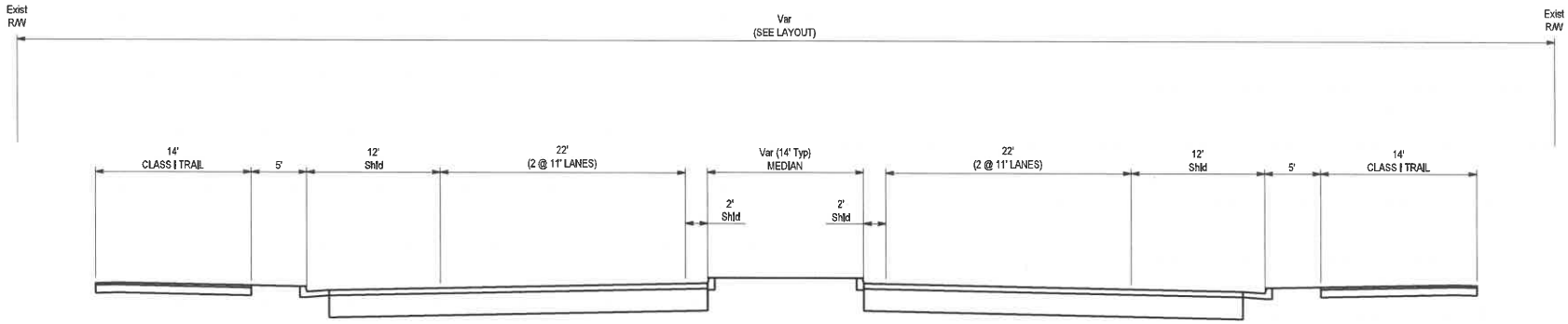
REGISTERED PROFESSIONAL ENGINEER — No. — CIVIL — STATE OF CALIFORNIA

REGISTERED ENGINEER — DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

GHD Inc. 943 RESERVE DRIVE ROSEVILLE, CA 95678	NVTA 625 BURNELL STREET NAPA, CA 94559



ROUTE 29

TYPICAL SECTIONS
NO SCALE

ALTERNATIVE 1

X-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: RONALD G. BOYLE

CALCULATED-DESIGNED BY: MICHAEL PITCOCK

CHECKED BY: LINDSEY VAN PARYS

REVISED BY

DATE REVISED

BORDER LAST REVISED 7/2/2010

USERNAME => mpitcock
DGN FILE => ALTERNATIVE1 – 4 LANES.DWG

RELATIVE BORDER SCALE IS IN INCHES: 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0317000163

LRP NUMBER 00-00-00

DATE PLOTTED => 12-22-2021
TIME PLOTTED => 16:39

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Nap	29	0.6/2.2	–	–

PRELIMINARY, NOT FOR CONSTRUCTION

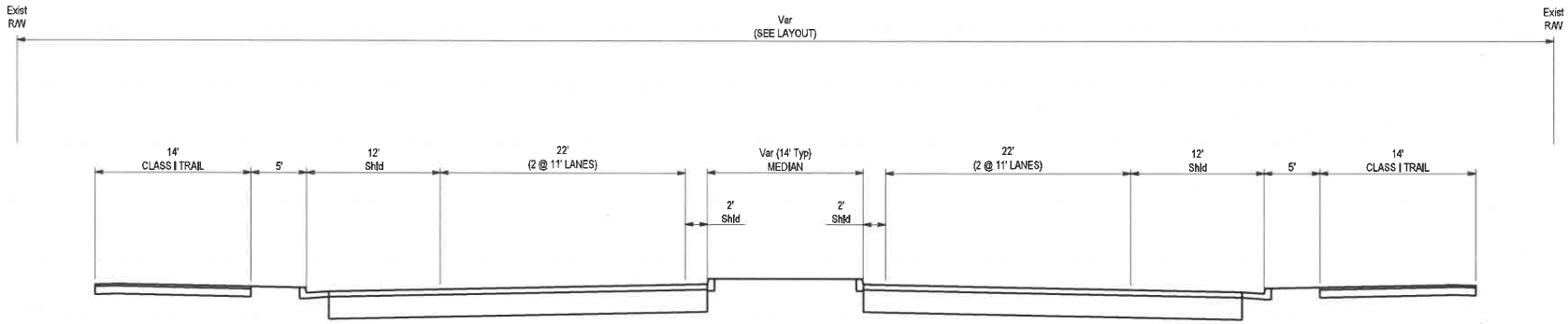
REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

REGISTERED ENGINEER — DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

GHD Inc. 643 RESERVE DRIVE ROSEVILLE, CA 95678	NVTA 625 BURNELL STREET NAPA, CA 94559



ROUTE 29

TYPICAL SECTIONS
NO SCALE

ALTERNATIVE 2

X-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: RONALD G. BOYLE
CALCULATED-DESIGNED BY: LINDSEY VAN PARYS
CHECKED BY: MICHAEL PITCOCK
REVISED BY
DATE REVISED

BORDER LAST REVISED 7/2/2010

USERNAME => mpitcock
DGN FILE => ALTERNATIVE2- 4 LANES.DWG

RELATIVE BORDER SCALE IS IN INCHES: 0 1 2 3

UNIT 0000

PROJECT NUMBER & PHASE 0317000163

LAST REVISION 00-00-00
DATE PLOTTED => 12-20-2021
TIME PLOTTED => 10:26

ATTACHMENT L

Vehicle Miles Traveled Decision Document

Vehicle-Miles Traveled Decision Document (VMTDD)

Applicability: This form is required for PIDs prepared by Caltrans or partners, with the following project exceptions: active transportation, transit, and most SHOPP projects.[1] Fill out the form and send it to Sustainability as a Word file. Add additional information as needed under each question. After review and agreement, e-signatures are required under Approval Recommended.

District/County/Route/PM: 04/NAP/29/0.69-2.05
Project Name: Route 29 in American Canyon Improvements Project
EA/EFIS Number: 04-4Q010

1) Are all project alternatives screened as not likely to induce travel per Section 5.1.1 of Transportation Analysis Under CEQA?

☐ NO - Proceed to Question 2.
☒ YES – Cite screening criterion(ia):

- Alternative 2 Only: Installation of roundabouts or traffic circles
- Timing of signals to optimize vehicle, bicycle, or pedestrian flow
- Roadway shoulder enhancements to provide "breakdown space," dedicated space for use only by transit vehicles, to provide bicycle access, or to otherwise improve safety, but which will not be used as automobile vehicle travel lanes
- Installation, removal, or reconfiguration of traffic control devices, including Transit Signal Priority (TSP) features
- Timing of signals to optimize vehicle, bicycle, or pedestrian flow
- Addition of new or enhanced bike or pedestrian facilities on existing streets/highways or within existing public rights-of -way
- Addition of Class I bike paths, trails, multi-use paths, or other off-road facilities that serve non-motorized travel

Stop here. The project is exempt from further VMT evaluation. Obtain district-level signatures and attach to the Project Initiation Document (PID). No headquarters concurrence is needed.

2) Do any of the project alternatives add lane-miles (mainline or aux lanes greater than 1 mile) to the State Highway System?

☐ NO - Continue to Question 3.
☐ YES – Provide estimate of new lane-miles for all alternatives and proceed to Question 4.

Alternative Number	Alternative Name	Lane-miles Added
1		

[1] This form is required for SHOPP projects that add lane-miles, including auxiliary lanes, and/or expand interchanges.

2		
3		
4		
5		
6		

3) Do any of the proposed alternatives add other capacity to the State Highway System (e.g., a new or widened interchange)?

☐ NO – Proceed to Question 4.
☐ YES – Describe and proceed to Question 4.

Alternative Number	Alternative Name	Capacity Added
1		
2		
3		
4		
5		
6		

4) Has induced VMT been estimated, as prescribed in Transportation Analysis Framework (TAF), Transportation Analysis Under CEQA (TAC), or other methods, for the project alternatives?

☐ NO – Proceed to Question 5.
☐ YES – Provide estimates and the methods from which they were obtained, and proceed to Question 5.

Alternative Number	Alternative Name	VMT Estimate	Estimation Method
1			
2			
3			
4			
5			
6			

5) Have VMT-reducing project elements or mitigation measures have been identified?

☐ NO – Proceed to Question 6
☐ YES – Describe and proceed to Question 6:_____

6) What is the budget for VMT mitigation? Provide the dollar figure and rationale.

7) Provide estimated completion dates and points of contacts for the following technical studies to be produced in PA&ED and submitted to HQ.

Document	Contact name	Contact e-mail	Scheduled date
VMT assessment methodology*			
Draft VMT assessment*			
Final VMT assessment*			
Mitigation plan			
Draft environmental document			
Final environmental document			

* Submission not required for projects exclusively employing the NCST California Induced Travel Calculator, nor for projects located in counties outside of MPO boundaries.

To Be Completed by HQ

Recommendation(s) to Project Development Teams (PDTs), Districts, and/or Partners

Project screened as unlikely to induce VMT ☒ YES ☐ NO

The project consists of a No Build alternative; Alternative 1, which includes a series of multimodal and intersection and improvements; and Alternative 2, a series of roundabouts at key intersections with multimodal elements. Alternative 3, a 6-lane highway expansion, was rejected. Alternatives will feature part-time bus-on-shoulder facilities and bus only signal phases to incorporate queue jump movements utilizing the shoulder as well as pedestrian throughput enhancements.

After reviewing the draft PSR and discussions with District staff, Sustainability agrees that the project is unlikely to induce substantial and measurable increases in VMT for the following reasons:

- Alternative 1 retains the existing 4-lane configuration of the highway, with intersection changes oriented around facilitating bicycle and pedestrian safety and throughput, and bus travel during commute times. The bus-on-shoulder component will be signed and enforced to limit the potential for general purpose travel. As a result, this alternative comports with project types listed in 5.1.1 of the TAC.
- Alternative 2 includes several roundabouts at intersections. To facilitate operations at the roundabouts, the project would add approach lanes in the southbound and northbound directions. From South Napa Junction to Napa Junction Road, these approach lanes would continue through the intersections for a little over ½ a mile to reduce queuing.

  In general, roundabouts are designed to improve safety at intersections by slowing speeds via their geometric design. The intention is to allow traffic to continue to move through intersections while permitting other movements, such as turning, safely. Moreover, as page 24 of the draft PSR indicates, "the additional travel lanes would not be implemented along the entirety of the project, only at the approaches to each of the roundabouts." As a result, Sustainability concurs that this alternative comports with Section 5.1.1 of the TAC.

The above assessment is based on the current project description and subject to change if the scope is altered to include potential VMT inducing alternatives. Please contact Sustainability with any questions.

Approved by:

Melanie Brent
Melanie Brent
Deputy District Director, Environmental

11/09/2022
Date

Celia McCuaig
for: Jean C.R. Finney
Deputy District Director, Transportation
Planning and Local Assistance

12/28/2022
Date

Dina El-Tawansy
Dina El-Tawansy
District Director

02/03/2023
Date

Tony Dang
Deputy Director, Sustainability

11/04/2022
Date

VMTDD - NAPA 29 Multimodal improvement project (4Q010K)

Final Audit Report 2022-11-05

Created:	2022-11-04
By:	Alexander Doerr (s146872@dot.ca.gov)
Status:	Signed
Transaction ID:	CBJCHBCAABAANK2qYIJI6C-9wHvtZgb7A-39vtL9rYOR

"VMTDD - NAPA 29 Multimodal improvement project (4Q010K)" History

Document created by Alexander Doerr (s146872@dot.ca.gov)
2022-11-04 - 10:13:27 PM GMT

Document emailed to Tony Dang (tony.dang@dot.ca.gov) for signature
2022-11-04 - 10:14:14 PM GMT

Email viewed by Tony Dang (tony.dang@dot.ca.gov)
2022-11-04 - 11:55:58 PM GMT

Document e-signed by Tony Dang (tony.dang@dot.ca.gov)
Signature Date: 2022-11-05 - 0:05:36 AM GMT - Time Source: server

Agreement completed.
2022-11-05 - 0:05:36 AM GMT

Powered by Adobe Acrobat Sign

ATTACHMENT M

TMP Data Sheet

TRANSPORTATION MANAGEMENT PLAN DATA SHEET

For Consultant TMP Projects

PROJECT MANAGER Rui (Ricky) Gao (Phone #)
PROJECT ENGINEER James Chuang (Phone #)
DIST-EA/PROJ ID: 04-4Q010 PROGRAM CATEGORY
PROJECT COMMON NAME Route 29 in American Canyon Multimodal Improvements Project
CO-RTE-PM: 04-29-0.69/2.05
LEGAL DESCRIPTION: In American Canyon, from American Canyon Drive to Napa Junction Road
DETAILED WORK DESCRIPTION: Intersection Construction, Curb, Gutter and Sidewalk Construction
CONSTRUCTION COST ESTIMATE:
PROJECT PHASE: PIR ☒ PR ☐ PS&E ☐ _____%

Traffic Impact Descriptions

A) Does the proposed project include long term closures (> 24 hours)
Yes__X__ No____
[If "No", Continue to Item D (Preliminary TMP Elements and Costs.). If "Yes", Check Applicable Facilities.]

- ☐ Freeway Lanes
- ☐ Freeway Shoulder
- ☐ Freeway Connectors
- ☐ Freeway Off-ramps
- ☐ Freeway On-ramps
- ☒ Local Streets
- ☐ Full Freeway Closures

B) Are there any construction strategies that can restore existing number of lanes? (Check Applicable Strategies)

- ☐ Temporary Roadway Widening Structure Involvement? Yes____ No____
  (If yes, notify Project Manager)
- ☒ Lane Restriping (Temporary Narrow Lane Widths) Yes_X_ No____
- ☒ Roadway Realignment (Detour Around Work Area)
- ☒ Median and/or Right Shoulder Utilization
- ☐ Use of an HOV lane as a Temporary Mixed Flow Lane
- ☐ Staging Alternatives (Explain Below)

Notes:

_____

_____

_____

C) Calculated Delays (To be performed if construction strategies in Item B do not mitigate congestion resulting from Item A)

1. Estimated Maximum Individual Vehicle Delay TBD[1] Minutes
2. Existing or Acceptable Individual Vehicle Delay TBD[1] Minutes

[1]Delay Calculations to be provided in PA/ED Phase

3. Estimated Individual Vehicle Delay Requiring Mitigation [(1) - (2)] _____ Minutes
4. Estimated Delay Cost (Most Applicable)
   - ☐ Extended Weekend Closure $_____
   - ☐ Weekly (7 days) $_____
5. Estimated Duration of Project Related Delays _____
6. Cost of Construction Related Delays [(4 x 5)] $_____

D) Preliminary TMP Elements and Cost

1. Public Information
   - ☒ a. Brochures and Mailers $ 5,000
   - ☒ b. Press Release $ 2,000
   - ☐ c. Paid Advertising $
   - ☐ d. Public Information Center/Kiosk $
   - ☒ e. Public Meeting/Speakers Bureau $ 3,000
   - ☒ f. Telephone Hotline $ 1,500
   - ☒ g. Internet $ 1,500
   - ☒ h. Notification to impacted groups $ 2,500
     (Bicycle users, Pedestrians with disability, others.)
   - ☐ i. Others _____ $

   SUB TOTAL $ 15,500

2. Motorists Information strategies
   - ☐ a. Changeable Message Signs (Fixed) $
   - ☒ b. Changeable Message Signs (Portable) $ 30,000
   - ☒ c. Ground Mounted Signs $ 15,000
   - ☐ d. Highway Advisory Radio $
   - ☒ e. Caltrans Highway Information Network (CHIN) $ 1,000
   - ☒ f. Revised Transit Schedules/Maps $ 2,500
   - ☐ g. Others _____ $

   SUB TOTAL $ 48,500

3. Incident Management
   - ☒ a. Construction or Maintenance Zone Enhanced Enforcement Program (COZEEP or MAZEEP) $ 50,000
   - ☐ b. Freeway Service Patrol $
   - ☐ c. Traffic Management Team $
   - ☐ d. New CCTVs and Detectors $
   - ☐ e. Others _____ $

SUB TOTAL $ 50,000

4. Construction Strategies (In Addition to Elements Identified on Item B)
   - [x] a. Off Peak/Night/Weekend Work (Lane Closure Charts) $
   - [ ] b. Reversible Lanes $
   - [ ] c. Total Facility Closure $
   - [ ] d. Extended Weekend Closure $
   - [ ] e. Truck Traffic Restrictions $
   - [x] f. Reduced Speed Zone $ Included in CAS
   - [ ] g. Connector and Ramp Closures $
   - [ ] h. Incentive and Disincentive $
   - [ ] i. Moveable Barrier $
   - [ ] j. Others: Maintain Traffic $ 31,000

SUB TOTAL $

5. Demand Management
   - [ ] a. HOV Lanes/Ramps (New or Convert) $
   - [ ] b. Park and Ride Lots $
   - [ ] c. Rideshare Incentives $
   - [ ] d. Variable Work Hours $
   - [ ] e. Telecommute $
   - [ ] f. Ramp Metering (New Installation) $
   - [ ] g. Ramp Metering (Maintain Existing) $
   - [ ] h. Others $

SUB TOTAL $

6. Alternate Route Strategies
   - [ ] a. Add Capacity to Freeway Connector $
   - [ ] b. Street Improvement (widening, traffic signal, etc) $
   - [ ] c. Traffic Control Officers $
   - [ ] d. Parking Restrictions
   - [ ] e. Others $

SUB TOTAL $

7. Other Strategies
   - [ ] a. Application of New Technology $
   - [ ] b. Others $

SUB TOTAL $

8. The Project includes the following: (Check applicable type of facility closures)
   - ☒ a. Highway or Freeway Lanes
   - ☒ b. Highway or Freeway Shoulders
   - ☐ c. Full Freeway Closure
   - ☐ d. Freeway On/Off-Ramps
   - ☐ e. Freeway Connectors
   - ☒ f. Local Streets
   - ☐ g. Prolonged Ramp Closures

9. Major operations requiring traffic control and working days for each

Operation	# of Working Days	# of Traffic Control Days
☒ a. Clearing and Grubbing	15	10
☒ b. Existing Feature Removal	40	30
☒ c. Excavation of Embankments Construction	50	40
☒ d. Structural Section Construction	75	60
☐ e. Drainage Feature Construction	30	20
☒ f. Structures Construction	90	75
☒ g. MGS/Barrier Construction	20	20
☒ h. Striping	25	25
☒ i. Electrical Component Construction	90	60
☐ j. Other		

Total days 435

TOTAL ESTIMATED COST OF TMP ELEMENTS = $ 145,000

Notes : Extensive TMP may be required for the significant impacts.

PREPARED BY (Consultant) Lindsey Van Parys, PE DATE 6/14/2022

APPROVAL RECOMMENDED BY
(Caltrans Oversight Engineer) Johnny Villasica DATE 7/13/2022

APPROVED BY (TMP Office) Evelyn Gestuvo DATE 7/14/2022

ATTACHMENT N

Quality Management Plan

American Canyon SR 29 Corridor Improvement Project

04-NAP-29-0.69/2.05
04-4Q010K

Quality Management Plan

For Preparation of Project Initiation Documents for Locally Implemented Projects on the State Highway system

Napa Valley Transportation Authority

→ The Power of Commitment

APPROVAL SHEET

This Quality Management Plan (QMP) has been developed to direct the Quality Assurance/Quality Control (QA/QC) program that will be implemented for the development, review, and approval of Project Initial Documents (PIDs) for the American Canyon SR 29 Corridor Improvement Project.

Concurred by: Amani Meligy Date: 11-29-2022
Amani Meligy
Caltrans Project Manager

Approved by: Date: 11-8-2022
Danielle Schmitz
NVTA Project Manager

Approved by: Date: 11-8-2022
Lindsey Van Parys, PE
Project Manager

Approved by: Date: 11-8-2022
Stephanie Ledbetter, PE
Quality Assurance/Quality Control Manager

REVIEW AND REVISION RECORD LOG

Date: 12/01/2021

To: Napa Valley Transportation Authority

From: Stephanie Ledbetter, PE, Quality Assurance/Quality Control Manager

Subject: Quality Management Plan

Contents

1. **Introduction** 1
2. **Quality Control Reviews** 1
3. **Checking of Calculations** 1
4. **Checking of Drawings** 2
5. **Quality Assurance** 2
6. **Reporting Structure** 2
7. **QA/QC Duties and Responsibilities** 4
   - a. Principals-in-Charge (PICs) 4
   - b. Caltrans Project Manager 4
   - c. NVTA Project Manager 4
   - d. GHD Project Manager 4
   - e. Technical Staff 5
8. **Document Control** 5
9. **Control of Subconsultants** 5

Exhibits

Exhibit A Example General List of Deliverables and Assigned QC Reviewers
Exhibit B Example Quality Control Review Form

This document is in draft form. The contents, including any opinions, conclusions or recommendations contained in, or which may be implied from, this draft document must not be relied upon. GHD reserves the right, at any time, without notice, to modify or retract any part or all of the draft document. To the maximum extent permitted by law, GHD disclaims any responsibility or liability arising from or in connection with this draft document.

1. Introduction

The purpose of the Quality Management Plan (QMP) is to facilitate an effective and efficient process for the development, review, and approval of Project Initiation Documents (PIDs) for State Highway System (SHS) projects sponsored by Napa Valley Transportation Authority (NVTA). NVTA, the project sponsor, must develop and follow a QMP that meets the standards of professional practice and satisfies requirements of the project scope, cost, and schedule. The Project Managers from Caltrans and NVTA shall ensure that all Project Development Team (PDT) members utilize the QMP elements as described in this document during the production and review of the PIDs. Quality Assurance and Quality Control (QA/QC) will be performed before deliverables are presented to Caltrans for review. Each team member must understand the project objectives, apply sound engineering principles and is expected to produce quality, accurate, and complete documents within the project schedule and budget. Project documents will be prepared in accordance with current Caltrans and City of American Canyon regulations, policies, procedures, manuals, and standards including compliance with Federal Highway Administration (FHWA) requirements as applicable.

2. Quality Control Reviews

1. Quality Control (QC) reviews shall be conducted for all deliverables. A Project schedule shall be developed with the consensus of the PDT that identifies anticipated reports, submittal dates and review periods. **Exhibit A** contains a sample general list of deliverables and assigned QC reviewers.
2. Prior to submission to Caltrans, each deliverable will be subject to review by senior GHD staff and NVTA's project manager.
3. Project documents will be reviewed for conformance with project design criteria, legibility, and completeness and compliance with regulatory and code requirements.
4. All QC comments will be evaluated by the lead author for the document, discussed with the QC reviewer as needed and, if appropriate, incorporate into the deliverable. The NVTA and Caltrans Project Manager will review and approve the resolution of each comment.
5. The Project Quality Control Coversheet, as shown in **Exhibit B**, shall be used to document all quality control reviews.

3. Checking of Calculations

Final report calculations associated with the conceptual alternatives, cost estimates, and traffic technical reports shall be checked for reasonableness by GHD. All calculations shall be reviewed by NVTA.

This document is in draft form. The contents, including any opinions, conclusions or recommendations contained in, or which may be implied from, this draft document must not be relied upon. GHD reserves the right, at any time, without notice, to modify or retract any part or all of the draft document. To the maximum extent permitted by law, GHD disclaims any responsibility or liability arising from or in connection with this draft document.

4. Checking of Drawings

Conceptual geometric plans, figures, mapping and preliminary bridge and/or structure plans (if applicable) shall be checked in accordance with established standards (e.g. Highway Design Manual and City of American Canyon standards) by GHD.

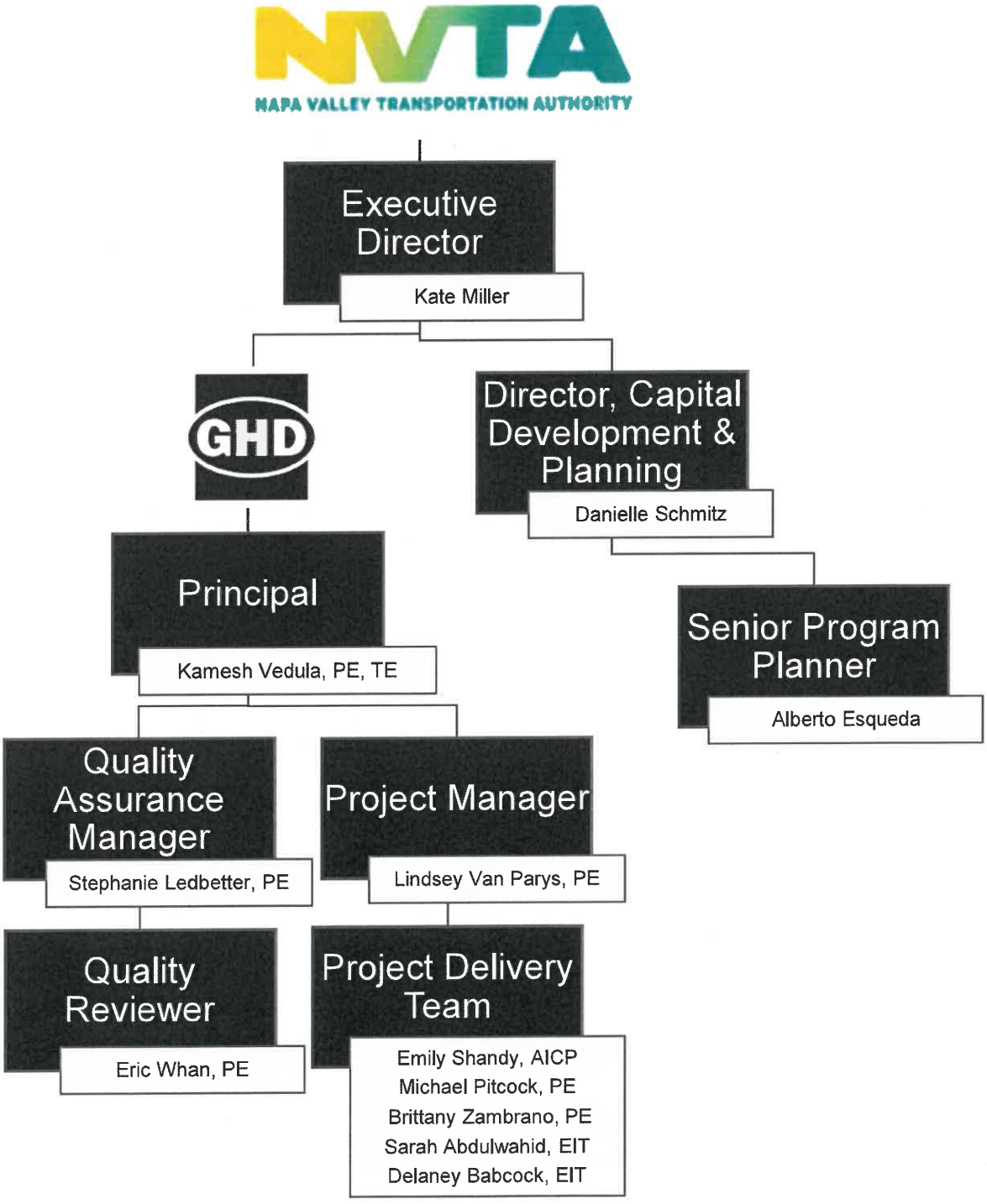
5. Quality Assurance

The project managers from Caltrans and NVTA, along with GHD, will be responsible for the development of deliverables and assure that the stated quality control procedures are being followed. A Quality Assurance Log that includes dates when documents were received, reviewed, and names of the QC reviewers shall be maintained for each report or work product.

6. Reporting Structure

The high-level organization chart that describes the reporting structure and assigned staff that are involved in the QA/QC is included on the following page.

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7. QA/QC Duties and Responsibilities

Quality control begins with assigning the most appropriate person to each task. Each member of the team should be responsible for controlling the quality of the product, beginning with the project staff through to the project managers. The qualifications of the team members overseeing and doing the work should be identified. All team members should be in regular communication with each other and their respective managers in regards to project status, schedule, and any issues that might arise during the development of the PID.

The duties and responsibilities of each of the project members in coordinating and guiding the project efforts are described below:

a. Principals-in-Charge (PICs)

PICs are responsible for allocation of resources and monitoring of the project to ensure adherence to the project objectives, schedule, budget, approvals and for ensuring that the QC plan is in place and implemented. The PIC provides periodic audits of technical work and performance of respective staff.

b. Caltrans Project Manager

The PM is responsible for coordinating and managing independent quality assurance (IQA) as described in the cooperative agreement.

c. NVTA Project Manager

The PM:

- Is responsible for completion of the project scope and tasks, and adherence to project schedule and budget, including the QC program.
- Allocates resources for the work, establishes and implements the QMP, schedules the various activities, and adjusts plans as the work progresses.
- Identifies potential problem areas and resolves them in a timely manner.
- Is responsible for technical review and approval of project documents before issuance to Caltrans.
- Certifies that each submittal has been prepared and checked in accordance with Caltrans standards, policies, and procedures, which sound engineering practices have been used to produce a quality product and maintains frequent contact and communication with the Caltrans PM to assure satisfactory progress and performance.

d. GHD Project Manager

The PM:

- Reviews and monitors the implementation of the QC program and ensures consistency with Caltrans standards, policies, and procedures.
- Identifies the QC actions required to be taken, the resources to be applied, and the interaction of these activities with the other elements of work.

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- Identifies the involved personnel and their duties, allocates time and resources to the quality control function, and reviews the allocated resources as the work progresses.
- Is responsible for the technical work produced by GHD's staff.
- Works closely with the Caltrans and NVTA PM's.
- Ensures early identification and resolution of any product deficiencies.
- Performs periodic reviews of QC documentation.
- Identifies and corrects nonconforming conditions.

e. Technical Staff

The technical staff:

- Are responsible to GHD's PM for the quality of the work produced within their respective disciplines.
- Monitors work to assure adherence to the contract scope of services and to the established review procedures to ensure consistency with Caltrans and City of American Canyon standards, policies, and procedures.
- Advises the GHD PM regarding the progress of work and of any circumstances that may require particular attention.
- Reviews work prior to providing to GHD's QC reviewer.
- Resolves QC review comments.
- Ensures comments are incorporated into final documents.
- Reviews completed work before it is transmitted to NVTA and Caltrans.

8. Document Control

GHD shall maintain and make available electronic records and hard copies of drafts and final reports for inspection.

9. Control of Subconsultants

GHD shall ensure that all sub-consultants have the same responsibilities as GHD. There are no sub-consultants involved for this phase.

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Exhibit A – Example List of Deliverables and Assigned QC Reviewers

Deliverable	*Consultant Reviewer*	*NVTA Reviewer*
Project Schedule	***Eric Whan, PE***	***Danielle Schmitz***
QA/QC Plan	***Eric Whan, PE***	***Danielle Schmitz***
Project Purpose and Need Statement	***Eric Whan, PE***	***Danielle Schmitz***
Alternatives Evaluation & Screening	***Eric Whan, PE***	***Danielle Schmitz***
Traffic Analysis and Reports & ICE	***Kamesh Vedula, PE, TE***	***Danielle Schmitz***
PEAR	***Charles Smith, AICP***	***Danielle Schmitz***
SWDR	***Erik Fanselau, PE***	***Danielle Schmitz***
Complete Streets Design Documentation	***Eric Whan, PE***	***Danielle Schmitz***
Risk Register	***Eric Whan, PE***	***Danielle Schmitz***
Cost Estimates	***Eric Whan, PE***	***Danielle Schmitz***
Traffic Management Plan	***Eric Whan, PE***	***Danielle Schmitz***
Draft and Final PSR-PDS	***Eric Whan, PE***	***Danielle Schmitz***

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EXHIBIT B - EXAMPLE QUALITY CONTROL REVIEW FORM
Quality Control Review Sign-Off Form

Client:	City of Oxnard	**Date to Reviewer:**	October 2, 2015
Project Name:	Rice Ave Grade Sep PSR-PDS	**Review Deadline:**	October 10, 2015
Client & Job Number:	Jason Samonte (15003)	**Actual Review Date:**	October 8, 2015
Project Manager:	Carlos Cadena	**Deliverable Due Date:**	October 16, 2015
Reviewer:	Hank Nguyen	**Actual Hours:**	120
Production Coordinator:	Michael Hynes	**Project Type:**	PSR-PDS
Item Reviewed:	Alternative Plans and PSR/PDS	**Task/Activity:**	Review PSR-PDS document and plans
Project Task or Phase:	PID		

Deliverable %: Draft PSR-PDS — Internal Review

Type of Review	Comment Sheet Attached/Emailed	Completed by Reviewer	
		Initial	Date
Reports:			
Environmental	Comments on product, E-mailed	Rich Galvin	October 8, 2015
Master Plans	Comments on product, Emailed	Hank Nguyen	October 8, 2015
Reports and Documents	Comments on product, Emailed	Hank Nguyen	October 8, 2015
Technical Memorandum	Comments on product, Emailed	Marc Cooley	October 8, 2015
Other:			
Design:			
Architectural	N/A		
Calculations	N/A		
Civil	N/A		
Cost Estimates	Comments on product, Emailed	Hank Nguyen	October 9, 2015
Electrical	N/A		
Spec and/or Front-Ends	N/A		
Instrumentation & Control	N/A		
Mechanical	N/A		
Plan & Profile (Pipeline)	N/A		
Process	N/A		
Structural	Comments on product, Emailed	Vinh Trinh	October 2, 2015
Stormwater	Comments on product, Emailed	Michael Hynes	October 8, 2015
Other:			
Miscellaneous:			
Submittal Previous QC Backcheck	Comments on product, Attached	Michael Hynes	October 9, 2015
Drafting Backcheck	Attached	Michael Hynes	October 11, 2015
Project Guide	Attached	Michael Hynes	October 12, 2015
O&M Manuals			
Survey Datums & Sea Level Rise			
Other:			

Notes:
Please return "signed" QC Review Sign-off Form and markups to your assigned Production Coordinator.

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Signatures:

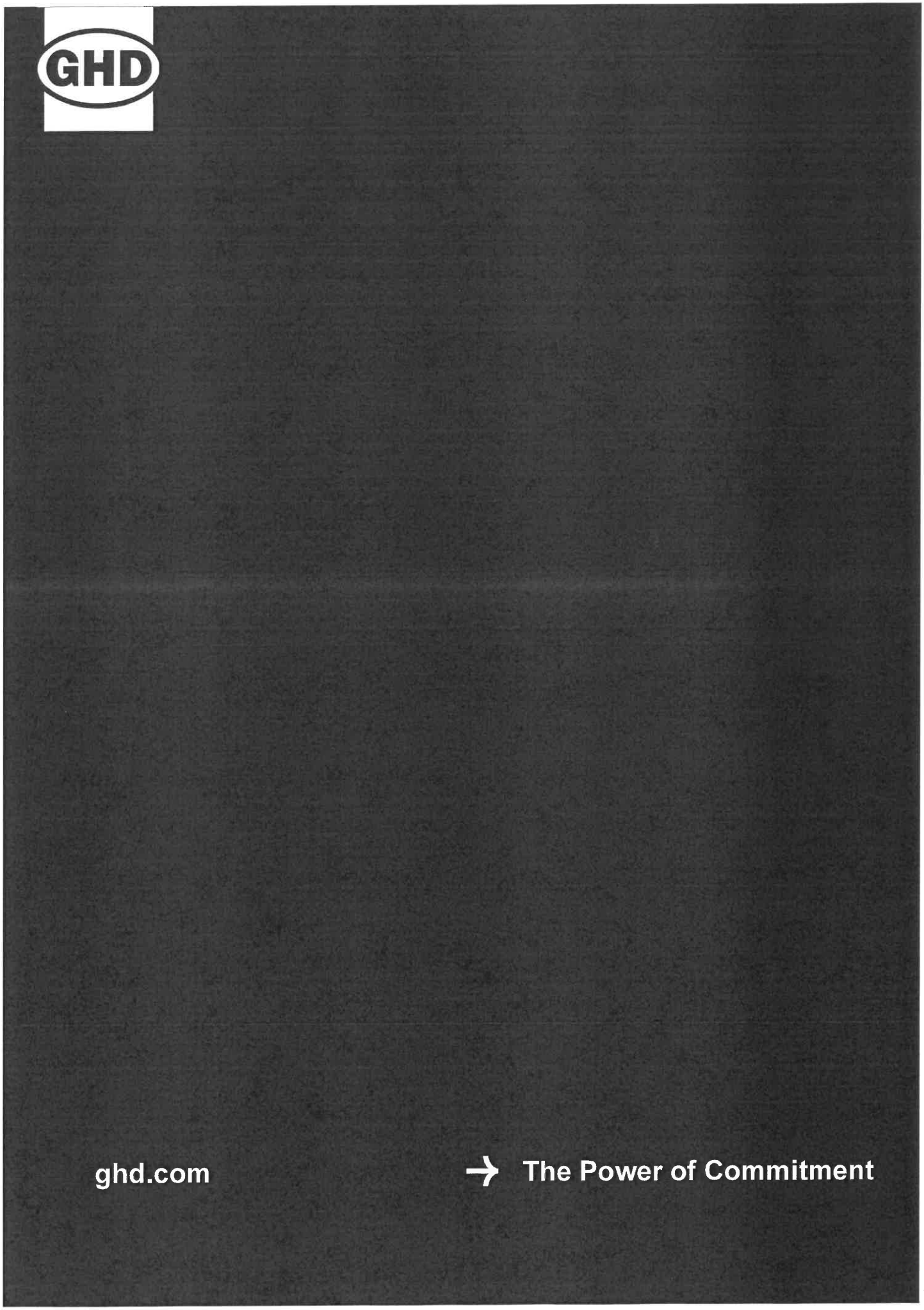
Carlos Cadena, Project Manager — Date - Response to Comments: 10/30/15

Michael Hynes, QC Reviewer — Date - Resolution Accepted: 10/30/15

Instructions:
1) Project Manager fills out QC Review form & transmits to assigned QC Reviewer with document(s); 2) After review, QC Reviewer returns reviewed document/completed QC Review form to PM with comments: 3) Project Manager is responsible for reviewing comments, making appropriate changes/notations, & informing QC Reviewer of changes made; 4) QC Reviewer completes form upon resolution.

QA-QC Program Coord. Dan Weddell, QA/QC Manager — Date: 12/2/2015

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ATTACHMENT O

Design Scoping Index

Design Scoping Index

Attach the project location map to index to show the location of all design improvements.

Today's Date:	9-12-2022
Status (Initial, Update):	Initial

General Information:

District:	County:	Route:	Post Mile	Project Number
04	Nap	29	0.69/2.05	0419000297

Project Manager	Amani Meligy	Phone #	
Task Manager		Phone #	
Project Engineer	James Chuang	Phone #	
Design Functional Manager		Phone #	

General Project Description:	Construction of multimodal improvemetns inlcuding class I trails, bus queue jumps and reconfiguring intersection control. Two Alternatives are being considered. Alternative 1 is a singal corridor. Alternative 2 is roundabout corridor.

Project Need:	Regionally, State Route (SR) 29 provides a direct connection between counties along Interstate 80 (I-80) and I-580 and counties along US 101 in the North Bay. Locally, SR 29 is also the lifeblood of access into and out of Napa County. Notwithstanding their disparate local context, vehicular volumes on SR 29 are comparable to other nearby state highways (SR 12 and SR 37). However, because the SR 29 Corridor functions as American Canyon's "Main Street", it experiences significant safety, aesthetic, and operational deficiencies between American Canyon Road and Napa Junction Road during weekday and weekend AM and PM peak hour conditions. The most pronounced issues in the corridor include: • Lack of multimodal connectivity - particularly for bicycle and pedestrian access - along and across SR 29; • Lack of low-stress routing options for bicyclists and pedestrians along SR 29; • Lack of public transit lanes, facilities and pull outs for stops • Lack of aesthetic benefits of landscaping along the corridor to help define American Canyon's "Main Street"; • Unprotected overhead utility poles in the State Right of Way are within the clear recovery zone • Regional traffic congestion hinders customer access to American Canyon's "Main Street" Commercial businesses; • Constraints at intersections cause extensive queuing and delays, and bottlenecks resulting in unreliable travel times for both motorists and public transit and traffic diverting to residential streets; • Compromised feasibility to provide enhanced transit service due to travel time unreliability; • Increased safety risk and conflicts between motorists and active transportation users due to unseparated facilities and high speed differentials; and • Increased response times for public safety vehicles.
Project Purpose:	Provide a multimodal and complete streets corridor that: • Improves mobility for all users • Improves safety for all users by incorporating Vision Zero concepts, which include strategies to eliminate all traffic fatalities and severe injuries through a systematic approach that believes traffic deaths are preventable • Eliminates overhead utility poles • Improves corridor aesthetics • Reduces Vehicle Miles Traveled (VMT) by encouraging transportation mode shift, which will help to reduce regional traffic on residential streets • Improves customer access to businesses adjacent to SR 29 • Provides improved accessibility for all modes of transportation along SR 29 between American Canyon Road and Napa Junction Road

Item	Considerations	Yes/No/Specify	Comments (summarize pertinent information. assumptions and reference location of detailed information):
	Rural or Urban?	Urban	

1. Project Setting (refer to Planning Scoping Checklist)	Current Land Uses: (e.g., industrial, light industry, commercial, agricultural residential etc).	Right of way, Light Industry, Commercial, Residential	
	Adjacent Land Uses:	Light Industry, Commercial, Residential	
	Existing Landscaping:	No	
	Designated or Eligible Scenic Highway	No	

The following pages are to be used for each alternative provided that the scope is significantly different. If a route has been adopted as a freeway, a decision must be made as to whether or not the project will address improvements to the existing traversable highway or move to construction of a freeway facility.

Alternative 1:

Item	Considerations		Yes/No/ Specify	Comments (summarize pertinent information, assumptions and reference location of detailed information):
Design Concept and Route Matters	1.	Design Concept?		
		Freeway/Expressway/ Conventional Highway	Conventional Hwy	
		Mixed highway and transit	Yes	
		Mixed highway and rail	No	
		Urban	Yes	
		Other		
	2.	Existing Route Adoption Date		
	3.	New Route Adoption Proposed?	No	
	4.	Existing Freeway Agreement Date	N/A	
	5.	New Freeway Agreement Proposed?	N/A	
	6.	Public Road Connection Proposed?	Yes	
Design Criteria	1.	Design speed for highway facilities within the project limit	55	
		mi/hr?		
	2.	Design Period: (10 yr/15 yr/20 yr)	20 yr	
		Construction Year	TBD	Anticipated 2026
		Design Year		
	3.	Design Capacity - Level of Service to be maintained over the design period:	E	
		Mainline	E	
		Ramp	N/A	
		Local Street	E	
		Weaving Sections	E	
	4.	Design Vehicle Selection		
		STAA	Yes	Through Movement Only
		California	Yes	Left and Right turns onto and off of Route 29.
		Bus	Yes	45' Bus

Forecasted Average Daily Traffic volumes	~38800
Percent truck volume	~7%%

Proposed Roadbed and Structure Widths

	Roadbed Width			Structure Width		
State Highway	Existing	Proposed	Standard	Existing	Proposed	Standard
Lane widths/#	12'/4	11'/4,4,6	12'			
Left Shoulder	4'	2'	2'			
Right Shoulder	Var. 0'-8'	12'	8'			
Median Width	40'	14'	12'			
Bicycle lane	0'	0'				
Sidewalk	0'	14'	6'			
Planting strip	0'	3'				
Local Streets						
Lane widths/#	11'	11'	11'			
Left Shoulder	0'	0'	0'			
Right Shoulder	0'	Maintain Exist	0'			
Median Width	0'	0'(Typ)	0'			
Bicycle lane	0'	0'(Typ)	0'			
Sidewalk	5'	5'	5'			
Planting strip	0'	0'				

Item	Considerations		Yes/No/ Specify	Comments (summarize pertinent information, assumptions and reference location of detailed information):
Roadway Design Scoping	1. Mainline Operations	Main lane highway widening?	Yes	Roadway Widened for portions of Alternative 2. Left Edges moved inwards to shrink median.
		Existing pavement to be rehabilitated with Asphalt Concrete/Rubberized AC/PCC?	Yes	Grind and Overlay to eliminate construction stripe ghosting.
		Widen existing facility from __ lanes to __ lanes.	No	
		Local street structures to span ___ lanes.		
		Curb extensions	No	
		Shoulder improvements	Yes	Widen shoulder to allow for Part Time Bus on Shoulder (BOS)
		Bicycle lanes	No	
		Pedestrian refuge islands	Yes	Alternative 2 only
		Sidewalks	Yes	Class I bike/ped Shared Use Path
		Right of Way acquisition required for ___ lanes.	Yes	Required at intersections for Transit Queue Jumps (Roundabouts for Alternative 2) and consistently for Class I Trail
		Upgrade existing facility to: Expressway/Freeway/ Controlled Access Highway/ Traversable Highway Standards?	No	
		Improve Vertical Clearance	N/A	

		Adequate Falsework Clearance	N/A	
		Traffic calming features	Yes	Reduced Lane widths for Traffic Calming.

Item	Considerations		Yes/No/ Specify	Comments (summarize pertinent information, assumptions and reference location of detailed information):
Roadway Design Scoping	2. Ramp/Street Intersection Improvements	New Signals?	Yes	5 New Signal replacements.
		Modify Existing Signals?	Yes	Modify American Canyon Rd. Signal
		Right Turn Lanes	Yes	Build new Right turn lanes where existing lanes exist.
		Widening for Localized Through lanes?	No	
		Merging Lanes?	Yes	Sub Standard Merge Lengths maintained
		Deceleration/ Acceleration lanes?	Yes	Existing Configurations Maintained
		Left Turn Lanes?	Yes	Existing Left Turn Lane lengths maintained
		>300 VPH Left Turn (Requires Double Left Turn Lane)	Unknown	Existing Lane Configurations Maintained
		Interchange Spacing?	N/A	
		Ramps Intersect Local Street < 4% grade?	N/A	
		Intersection Spacing?	N/A	Existing Spacing Maintained. HDM Ramp Intersection Spacing Standard not applicable.
		Exit Ramps >1,500 VPH (Requires two lane exit)	N/A	
		Single lane ramps exceeding 1000' widened to Two lanes	N/A	
		Curb Ramps?	Yes	Reconstruct Curb Ramps where affected. Bring to ADA Compliance.
		Pedestrian Facilities?	Yes	Class I Trail
		Other?	Yes	Transit Queue Jumps
Operational Improvements	Truck Climbing Lane	Sustained Grade exceeding 2% and Total Rise Exceeds 50'?	N/A	
		Other?		
	Auxiliary Lanes	2000' between Successive On-Ramps?	N/A	
		Two lane Exit Ramps have 1300' Auxiliary Lane?	N/A	
		Weaving < 2000' between off-ramp and on-ramp?	N/A	
		Other?		

Item	Considerations	Yes/No/ Specify	Comments (summarize pertinent information, assumptions and reference location of detailed information):
Right of Way Access Control	Existing access control extends at least 50 ft beyond end of curb return, radius or taper?	TBD	
	New construction access control extends at least 100' (urban areas) or 300' (rural areas) beyond end of curb returns, radius or taper?	TBD	
	Other?	No	Access point consolidation proposed.
Highway Planting and Irrigation	Clearing and Grubbing?	Yes	
	Relocate Existing Irrigation Facilities? Highway Planting and Irrigation (including median and roadside)	No	
Roadside Management	Vegetation control treatments (road edge, guardrails, signs, drainage facilities, miscellaneous pavement narrow areas, etc.)	Yes	Minor Conc Veg Control to be added if maintenance requests
	Modernization and clustering of facilities and hardware (removing and replacing other items), gore area pavement	N/A	
	Rehabilitate gore area pavement and pavement beyond gore areas (remove and replace miscellaneous pavement and curbs	N/A	
	Contour grading, slope rounding, stepped slopes and topsoil reapplication	Unknown	To be determined in design phase
	Side slopes/embankment slope	Yes	Slopes anticipated
Safety	Off-Freeway Access (gate, access road, and stairways)	N/A	
	Maintenance Vehicle Pull-Out	No	
	Adequate safety working conditions	Yes	Shoulder width = 12'
	Relocate roadside facilities/features (cabinets, poles, pull boxes and vaults) away from traffic	Yes	
Hydraulics/ Stormwater (Refer to the Stormwater data sheet)	Erosion Control?	Yes	
	Drainage?	Yes	Extent of Drainage will be identified in future phases
	Slope Design?	TBD	
Structures (Refer to Structures Scoping Checklist or APS)	New Bridge? Providing public access for recreational purposes must be fully considered for new bridges over navigable rivers.	No	
	Bridge Rehabilitation?	No	
	Retaining Wall	No	
	Bicycle or Pedestrian Overcrossing/Undercrossing	No	
	Other		
	On STRAIN list for:		

Other	Class I Bikeway (bicycle path)	Yes	14' Class I Trails on both sides of road.

Alternative 2:

Item	Considerations		Yes/No/ Specify	Comments (summarize pertinent information, assumptions and reference location of detailed information):
Design Concept and Route Matters	1.	Design Concept?	Yes	
		Freeway/Expressway/ Conventional Highway	Conventional Hwy	
		Mixed highway and transit	Yes	
		Mixed highway and rail	No	
		Urban	Yes	
		Other		
	2.	Existing Route Adoption Date		
	3.	New Route Adoption Proposed?	No	
	4.	Existing Freeway Agreement Date	N/A	
	5.	New Freeway Agreement Proposed?	N/A	
	6.	Public Road Connection Proposed?	Yes	
Design Criteria	1.	Design speed for highway facilities within the project limit	55	
		mi/hr?		
	2.	Design Period: (10 yr/15 yr/20 yr)	20 yr	
		Construction Year	TBD	Anticipated 2026
		Design Year		
	3.	Design Capacity - Level of Service to be maintained over the design period:	E	
		Mainline	E	
		Ramp	N/A	
		Local Street	E	
		Weaving Sections	E	
	4.	Design Vehicle Selection		
		STAA	Yes	Through Movement Only
		California	Yes	Left and Right turns onto and off of Route 29.
		Bus	Yes	45' Bus

Forecasted Average Daily Traffic volumes	~38800
Percent truck volume	~7%%

Proposed Roadbed and Structure Widths

	Roadbed Width			Structure Width		
State Highway	Existing	Proposed	Standard	Existing	Proposed	Standard
Lane widths/#	12'/4	11'/4	12'			
Left Shoulder	4'	2'	2'			
Right Shoulder	Var. 0'-8'	12'	8'			
Median Width	40'	14'				
Bicycle lane	0'	0'				
Sidewalk	0'	14'	6'			
Planting strip	0'	3'				
Local Streets						
Lane widths/#	11'	11'	11'			
Left Shoulder	0'	0'	0'			
Right Shoulder	0'	Maintain Exist	0'			
Median Width	0'	0'(Typ)	0'			
Bicycle lane	0'	0'(Typ)	0'			
Sidewalk	5'	5'	5'			
Planting strip	0'	0'				

Item	Considerations		Yes/No/ Specify	Comments (summarize pertinent information, assumptions and reference location of detailed information):
Roadway Design Scoping	1. Mainline Operations	Main lane highway widening?	Yes	Roadway Widened for portions of Alternative 2. Left Edges moved inwards to shrink median.
		Existing pavement to be rehabilitated with Asphalt Concrete/Rubberized AC/PCC?	Yes	Grind and Overlay to eliminate construction stripe ghosting.
		Widen existing facility from __ lanes to __ lanes.	4 to 6	Alternative 2 at Roundabouts
		Local street structures to span ___ lanes.		
		Curb extensions	No	
		Shoulder improvements	Yes	Widen shoulder to allow for Part Time Bus on Shoulder (BOS)
		Bicycle lanes	No	
		Pedestrian refuge islands	Yes	
		Sidewalks	Yes	Class I bike/ped Shared Use Path
		Right of Way acquisition required for ___ lanes.	Yes	Required at intersections for Roundabouts and consistently for Class I Trail
		Upgrade existing facility to: Expressway/Freeway/ Controlled Access Highway/ Traversable Highway Standards?	No	
		Improve Vertical Clearance	N/A	

		Adequate Falsework Clearance	N/A	
		Traffic calming features	Yes	Reduced Lane widths and Roundabouts for speed reduction.

Item	Considerations		Yes/No/ Specify	Comments (summarize pertinent information, assumptions and reference location of detailed information):
Roadway Design Scoping	2. Ramp/Street Intersection Improvements	New Signals?	No	Conversion to Roundabouts
		Modify Existing Signals?	Yes	Modify American Canyon Rd. Signal
		Right Turn Lanes	Yes	Build new Right turn lanes where existing lanes exist.
		Widening for Localized Through lanes?	No	
		Merging Lanes?	Yes	Sub Standard Merge Lengths maintained
		Deceleration/ Acceleration lanes?	Yes	Existing Configurations Maintained
		Left Turn Lanes?	Yes	Existing Left Turn Lane lengths maintained
		>300 VPH Left Turn (Requires Double Left Turn Lane)	Unknown	Existing Lane Configurations Maintained
		Interchange Spacing?	N/A	
		Ramps Intersect Local Street < 4% grade?	N/A	
		Intersection Spacing?	N/A	Existing Spacing Maintained. HDM Ramp Intersection Spacing Standard not applicable.
		Exit Ramps >1,500 VPH (Requires two lane exit)	N/A	
		Single lane ramps exceeding 1000' widened to Two lanes	N/A	
		Curb Ramps?	Yes	Reconstruct Curb Ramps where affected. Bring to ADA Compliance.
		Pedestrian Facilities?	Yes	Class I Trail
		Other?	Yes	Transit Queue Jumps
Operational Improvements	Truck Climbing Lane	Sustained Grade exceeding 2% and Total Rise Exceeds 50'?	N/A	
		Other?		
	Auxiliary Lanes	2000' between Successive On-Ramps?	N/A	
		Two lane Exit Ramps have 1300' Auxiliary Lane?	N/A	

		Weaving < 2000' between off-ramp and on-ramp?	N/A	
		Other?		

Item	Considerations	Yes/No/ Specify	Comments (summarize pertinent information, assumptions and reference location of detailed information):
Right of Way Access Control	Existing access control extends at least 50 ft beyond end of curb return, radius or taper?	TBD	
	New construction access control extends at least 100' (urban areas) or 300' (rural areas) beyond end of curb returns, radius or taper?	TBD	
	Other?	No	Access point consolidation proposed.
Highway Planting and Irrigation	Clearing and Grubbing?	Yes	
	Relocate Existing Irrigation Facilities? Highway Planting and Irrigation (including median and roadside)	No	
Roadside Management	Vegetation control treatments (road edge, guardrails, signs, drainage facilities, miscellaneous pavement narrow areas, etc.)	Yes	Minor Conc Veg Control to be added if maintenance requests
	Modernization and clustering of facilities and hardware (removing and replacing other items), gore area pavement	N/A	
	Rehabilitate gore area pavement and pavement beyond gore areas (remove and replace miscellaneous pavement and curbs	N/A	
	Contour grading, slope rounding, stepped slopes and topsoil reapplication	Unknown	To be determined in design phase
	Side slopes/embankment slope	Yes	Slopes anticipated
Safety	Off-Freeway Access (gate, access road, and stairways)	N/A	
	Maintenance Vehicle Pull-Out	No	
	Adequate safety working conditions	Yes	Shoulder width = 12'
	Relocate roadside facilities/features (cabinets, poles, pull boxes and vaults) away from traffic	Yes	
Hydraulics/ Stormwater (Refer to the Stormwater data sheet)	Erosion Control?	Yes	
	Drainage?	Yes	Extent of Drainage will be identified in future phases
	Slope Design?	TBD	
Structures (Refer to Structures Scoping Checklist or APS)	New Bridge? Providing public access for recreational purposes must be fully considered for new bridges over navigable rivers.	No	
	Bridge Rehabilitation?	No	
	Retaining Wall	No	
	Bicycle or Pedestrian Overcrossing/Undercrossing	No	
	Other		
	On STRAIN list for:		

Other	Class I Bikeway (bicycle path)	Yes	14' Class I Trails on both sides of road.

Caltrans Comment and Response Form

Document Type : Executive review PSR-PDS including attachments for NAP 29 Multimodal Due Date:
Co: ALA Rte: 29 PM: 0.69/2.05 Unit: GHD, consultant EA: 4Q010 Proj ID: 0419000297 Phase: K, Sub/Object: 150
MSA:_____Proj Mgr: Amani Meligy Oversight Project Engineer: James Chuang Oversight Senior: Mimy Hew

Reviewer's Name and Branch/Unit	Comments/Questions Please reference document section (e.g., paragraph, page #, etc.)	Circulator's Response to Comments/Questions
Mimy Hew - Senior Advance Planning	Update PSR-PDS attachments with latest signed versions	will comply
	1. As stated in my earlier comments, the QMP is to be "concurred" by Caltrans PM, not "approved" by Mimy Hew. The name was fixed but not the word, "approved."	will comply
Amani Meligy - Project Manager	no comments	noted
Celia McCuaig - Office Chief Advance Planning	Please see the revised Risk Register. It was faster for me to just edit it directly. So long as the Risk section of the PSR-PDS is also updated accordingly, it's good to go. I believe the language was general enough on the last draft that this should be okay.	wlll replace risk register with the version edited by you
Betcy Joseph - District Division Chief, Design North	no comments	noted
Celia McCuaig - Acting Deputy Director Planning	no comments	noted
Helena Culik-Caro - Deputy Director Design	no comments	noted

Caltrans Comment and Response Form

Document Type : Executive review PSR-PDS including attachments for NAP 29 Multimodal **Due Date:**

Co: ALA **Rte:** 29 **PM:** 0.69/2.05 **Unit:** GHD, consultant **EA:** 4Q010 **Proj ID:** 0419000297 **Phase:** K, **Sub/Object:** 150

MSA:___________ **Proj Mgr:** Amani Meligy **Oversight Project Engineer:** James Chuang **Oversight Senior:** Mimy Hew

Reviewer's Name and Branch/Unit	Comments/Questions Please reference document section (e.g., paragraph, page #, etc.)	Circulator's Response to Comments/Questions

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State Route 29 Comprehensive Multimodal Corridor Plan

Final Plan

May 2020



Acknowledgments

This plan was prepared for

Napa Valley Transportation Authority

Napa County

City of Napa

City of American Canyon

Caltrans District 4

This plan was prepared by

GHD

With support from

Regional Government Services

Elite Transportation Group

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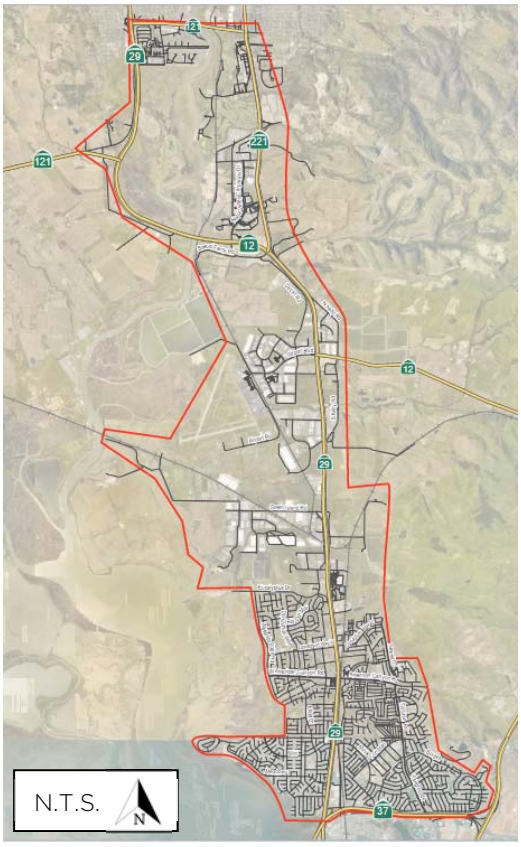
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Executive Summary

This Executive Summary provides a brief overview of the following ***State Route 29 Comprehensive Multimodal Corridor Plan (SR 29 CMCP)*** report and highlights the resulting **Preferred Corridor Plan**. While this Executive Summary was prepared to convey an overall summary of the report and resulting Corridor Plan, the study and its appendices should be referenced for additional detail on methodology and findings.

The SR 29 Comprehensive Multimodal Corridor Plan (SR 29 CMCP) evaluates the most constrained portion of SR 29 – an 11.5-mile portion that stretches from Imola Avenue (designated SR 121 east of SR 29) in the City of Napa to SR 37 in the City of Vallejo. The study corridor is shown below.



Study Objective

The objective of the SR 29 CMCP is to develop a comprehensive multimodal package of prioritized improvements that address the corridor's pre-eminent issues, including:

- Traffic congestion and delay;
- Increased crash risks for all users;
- Lack of low-stress multimodal connectivity;
- Reduced travel time and transit reliability;

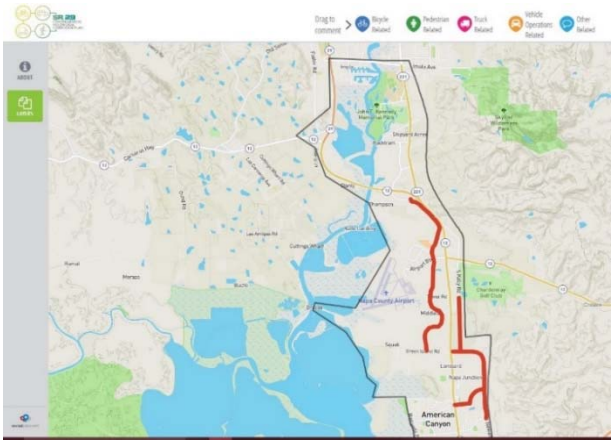
The preferred package of multimodal improvements must be feasible, equitable, cost-effective, and have community support. The preferred multimodal improvement package will serve to guide future SR 29 corridor programming decisions over a 20-year timeframe based on available funding. Enhancements for multimodal travel, parallel capacity, operational, and telecommunication strategies were a key focus of the SR 29 CMCP. Requisite technical information consistent with State and Federal grant program guidelines and implementation phasing of the multimodal improvement package were also key elements of the Plan.

Study Approach

The SR 29 CMCP examines the existing and future operational and safety performance of SR 29 using the Caltrans Smart Mobility Framework approach, a performance-based analysis performed to develop and evaluate alternative corridor improvement concepts. The results of the performance analysis were combined with substantial input from the public to inform the ultimate selection of the SR 29 preferred

corridor concept recommendation. The SR 29 preferred corridor concept with associated multimodal improvements establishes the funding priorities for the corridor that best meet both the local and regional goals while providing the highest return on investment (benefit-cost) of limited regional transportation funding over the next 20 years.

The SR 29 CMCP builds on a solid foundation of plans, policy documents, and community outreach efforts already completed along the SR 29 corridor. In particular, the SR 29 CMCP is a continuation of the outreach, analysis, and findings from the SR 29 Gateway Corridor Improvement Plan (NVTA, 2014).



Public Outreach Overview

The SR 29 CMCP outreach effort was robust in its focus on reaching the diverse communities. This outreach effort included two community workshops, a Staff Working Group comprising of all the partner agencies, and a robust online public engagement campaign including an interactive mapping tool. The mapping tool was made available on the project website beginning in early November 2019 and remained "live" through March 2020.

Corridor Solutions

Upon review of past planning and other corridor-related documents and establishment of evaluation performance metrics (Chapter 2 of the report), the public was engaged for their input (Chapter 3) and a thorough assessment of existing conditions was conducted (Chapter 4). These combined efforts led to the identification and evaluation of a focused group of Corridor Solutions (Chapter 5). These corridor solutions were identified based on prior efforts from the SR 29 Gateway Corridor Improvement Plan and from the needs analysis prepared as part of this study.

Seven categories of potential corridor improvements were identified. Within each of these categories, 24 separate and distinct improvements and/or services were described. Each of the improvements within these seven categories were costed and prioritized for future grant funding and implementation. The categories are outlined below.

- Parallel Capacity Improvements
- SR 29 Multimodal Improvements
- Intersection Improvements
- Shared Use Paths
- SMART Train Extensions
- Bus Improvements
- Integrated Corridor Management

Performance Assessment

The performance metrics selected for the SR 29 CMCP informed each of the six Smart Mobility Framework objectives to ensure that the resulting improvement recommendations provide a balanced,

sustainable, and multimodal assessment of current and forecasted corridor conditions. Requisite rubrics include:

- Planning level cost opinions;
- Mode shift and vehicle miles travelled;
- Level of traffic stress scores;
- Vehicular delay and buffer time reductions;
- Collision reduction benefit;
- Health and air quality benefit;
- Societal cost and benefit monetization factors (per Caltrans 2018 Economic Parameters); and,
- Return on investment (i.e. benefit-cost).

Equal attention was given to document the beneficial outcomes of measures not directly reflected in the benefit-cost assessment. These include: Plan Consistency (with existing plans); Policy Consistency (NVTA, the City and County of Napa, City of American Canyon and Caltrans); Environmental/Institutional Sensitivity; Adaptation; Economic Development and, Community Acceptance.

Benefit Monetization Assessment

The societal costs and benefits were monetized based on the societal cost information from the Caltrans 2016 and 2018 Economic Parameters, using the Caltrans Cal-B/C analysis tool. All quantified benefits were annualized and projected to reflect a 20-year design year condition (i.e., life-cycle costs). These monetized benefits were then combined with currently available planning level improvement cost opinions (described below) to yield a holistic benefit-cost estimate for each project alternative. The total estimated benefit for the proposed corridor improvements was $699,589,714 over 20 years.

Cot estimates were sourced from previous planning documents, reviewed and adjusted to be consistent with existing costs, where possible. Where not available, preliminary planning-level costs were developed by project team planning and engineering staff. The individual corridor improvement cost estimates are presented in the report. The total estimated life-cycle costs for the proposed corridor improvements is $404,515,000.

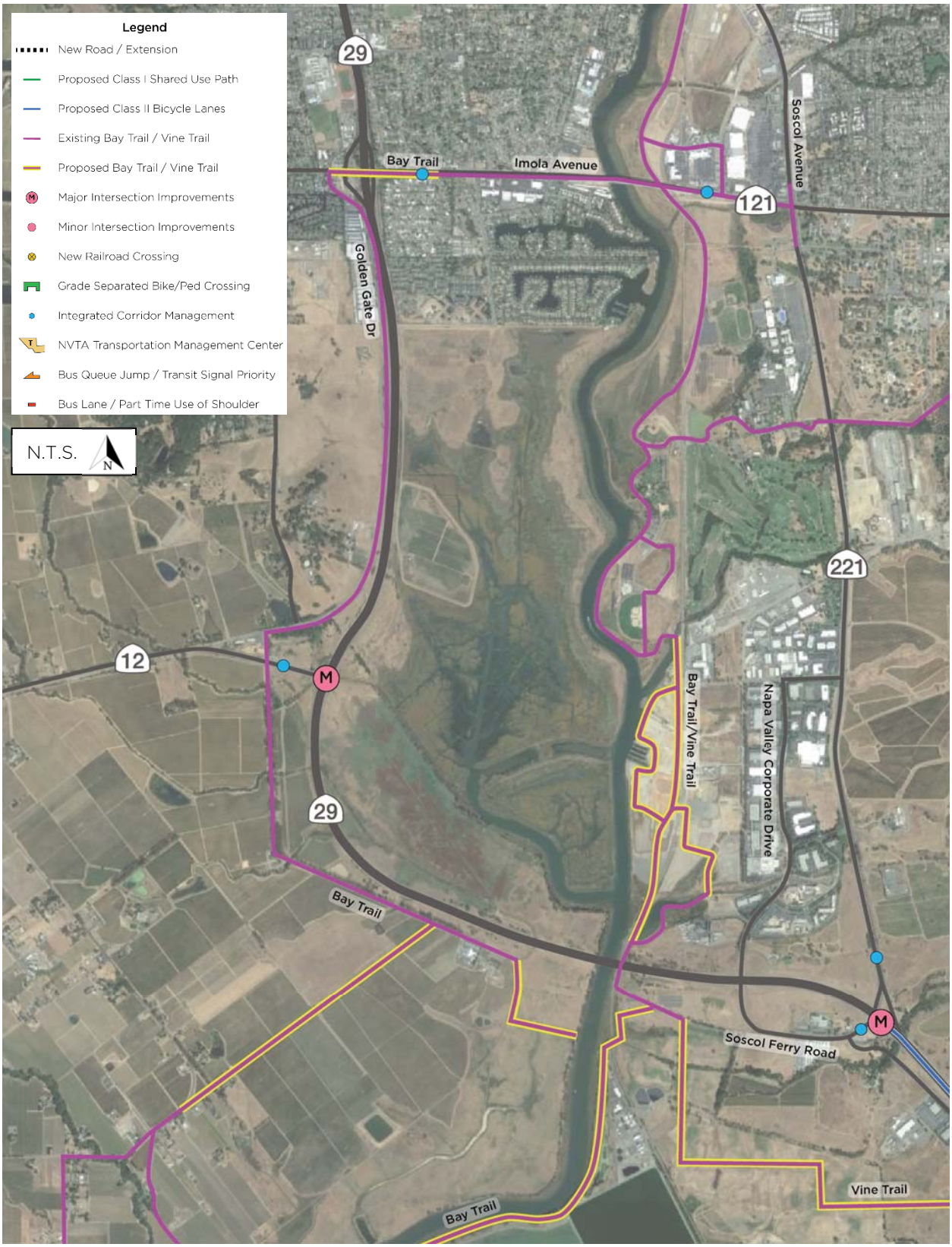
The comprehensive benefit cost for all improvements proposed within the study corridor. When monetized to a 20-Year life cycle, the benefit-cost equates to 1.73. **This means that the overall benefit over 20-years is nearly 75% over the actual capital and maintenance costs expended over that same period of time**.

Total Project Life-Cycle Cost	Life Cycle Benefit (20 Yrs.)
$404,515,000	$699,589,714
Total B/C	**1.73**

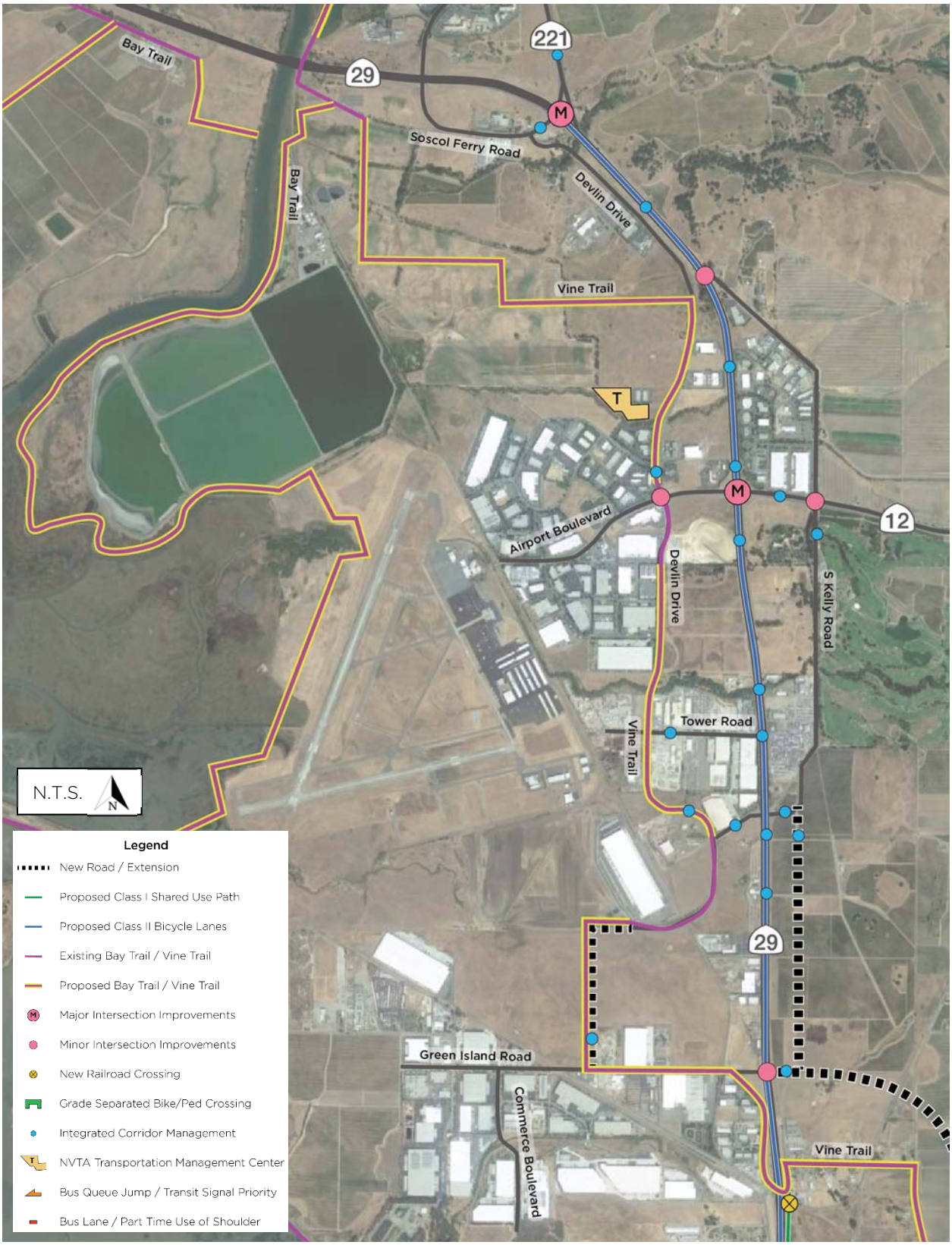
Preferred Corridor Plan

The following Preferred Corridor Plan, which represents implementation of the prioritized multimodal improvement package, is the achieved outcome of this study. The Preferred Corridor Plan consider public input and the application of the Smart Mobility Framework to assess holistic performance measures that align with State and Federal grant application requirements, yielding a competitive result.

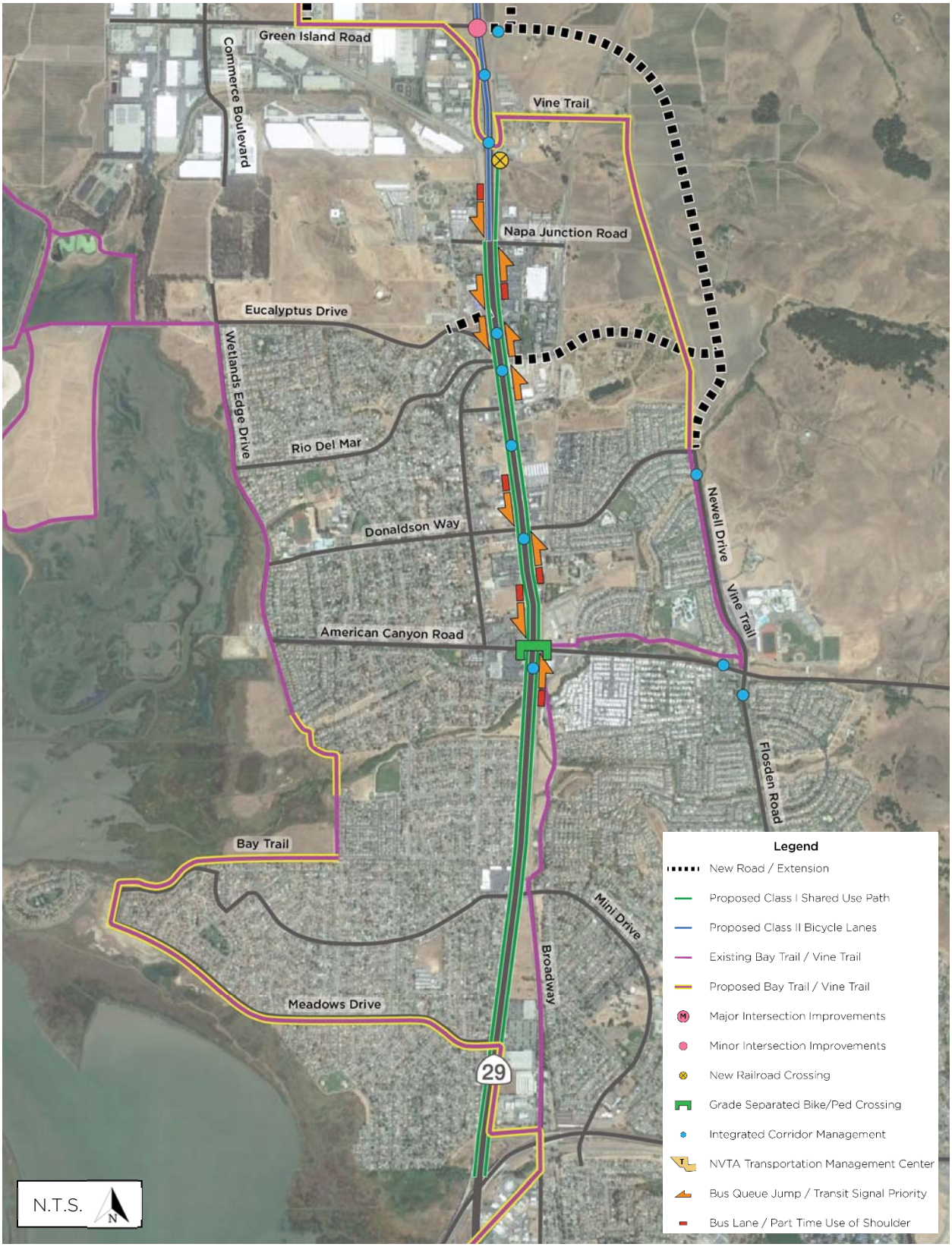
Preferred Corridor Plan: Imola Avenue to Soscol Junction (Figure 1 of 3)



Preferred Corridor Plan: Soscol Junction to Green Island Road (Figure 2 of 3)



Preferred Corridor Plan: Green Island Road to State Route 37 (Figure 3 of 3)



1 - Introduction

State Route (SR) 29 is part of the California Freeway and Expressway System within Caltrans District 4. It serves as the gateway to the world-renowned Napa Valley, extending from SR 20 in Lake County to Interstate 80 (I-80) in Solano County, as shown in Figure 1. The highway connects the Napa County cities of Calistoga, St. Helena, Yountville, Napa, and American Canyon. Immediately south of American Canyon, the highway connects the City of Vallejo in Solano County where it ultimately terminates at I-80. As the prime freight and agricultural access route for residents and wine industry businesses, SR 29 provides a vital regional connection to both the San Francisco Bay Area and the Sacramento Valley. Daily travel within Napa County ranges from 40,000 to 70,000 vehicles per day, including people commuting to work, tourists visiting the legendary wine region, and special event traffic.

Portions of SR 29 are eligible for inclusion into the State Scenic Highway System, although they are not currently designated as such. The historic alignment of SR 29 began as Old Bull Trail Road in the 1850s, which included steep grades up to 35 percent. That road was replaced by the St Helena Toll Road in 1868, which reduced inclines to 12 percent. During World War II, the highway was widened again to support military operations at the US Naval Base on Mare Island in Vallejo, leading to the current four-lane configuration. SR 29 is classified as a conventional highway throughout the study area. A portion of SR 29 is classified as a freeway between postmile 8.66 and 13.01, from the Imola Avenue (SR 121) interchange to the Trancas Street / Redwood Road interchange.

The SR 29 Comprehensive Multimodal Corridor Plan (SR 29 CMCP) evaluates the most constrained portion of SR 29 – an 11.5-mile portion that stretches from Imola Avenue (designated SR 121 east of SR 29) in the City of Napa to SR 37 in the City of Vallejo. The study corridor is shown in Figure 2. There are several discontinuous parallel roadways in the study corridor including SR 221, SR 12, South and North Kelly Road, Devlin Road, Soscol Ferry Road, Soscol Creek Road, Newell Drive, Flosden Road, and Fairgrounds Drive. This lack of continuous alternative routes contributes to the congestion problems on SR 29 and has elevated the importance of this state route as a lifeline for many of the communities it serves.

The SR 29 study corridor experiences significant safety and operational issues during weekday and weekend peak hour conditions. The most pronounced issues in the corridor include:

- Lack of multimodal connectivity particularly for bicycle and pedestrian access along and across SR 29;
- Lack of low-stress routing options for bicyclists;
- Lack of continuous parallel routes to support local and regional travel demand;
- Capacity constraints at key SR 29 intersections that cause extensive queuing and delays, extensive bottleneck durations, and unreliable travel times for both motorists and transit;
- Compromised feasibility to provide enhanced transit service due to travel time unreliability
- Increased safety risk and conflicts between motorists and active transportation users

- Compromised emergency response times, evacuation routes and incident clearance capabilities.

Napa County residents have long expressed concerns about congestion and safety on SR 29. Area residents, commuters and others who regularly drive the corridor have noted the 11.5-mile segment between SR 121 and SR 37 is particularly challenging. In recognition of the regional importance of SR 29, its diminishing quality of service, and its priority need for improvement by the jurisdictions it serves, the Napa Valley Transportation Authority (NVTA) in partnership with Caltrans District 4, the County of Napa, and the Cities of Napa and American Canyon commissioned the 2014 SR 29 Gateway Corridor Improvement Plan, and subsequently, this SR 29 CMCP.

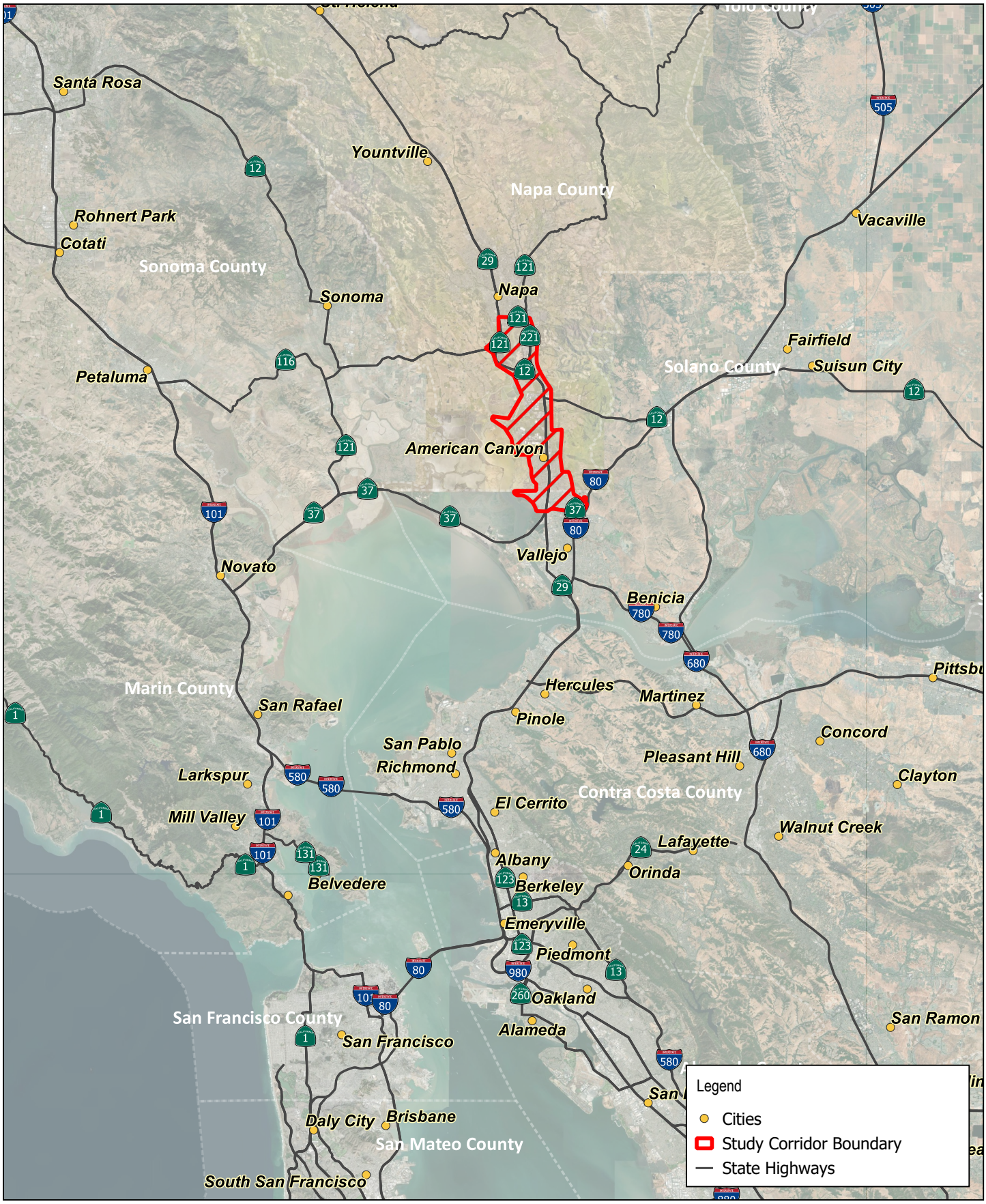
The SR 29 CMCP builds on the efforts and recommendations of the 2014 SR 29 Gateway Corridor Improvement Plan, expanding the study area to include parallel facilities and updating the analysis to assist in the prioritization of projects using the requisite performance measures necessary to move priority projects into implementation through competitive Statewide and Federal grant programs.

Study Purpose

The purpose of The SR 29 CMCP is to inventory known planned and programmed corridor improvements identified in prior corridor planning efforts to form a comprehensive multimodal package of prioritized improvements. The preferred package of multimodal improvements should improve the quality of and access to active transportation, thus encouraging travel mode shift from single occupant vehicles to bicycle, pedestrian, and transit travel, consistent with Caltrans Deputy Directive DD-64-R2 and the Metropolitan Transportation Commission (MTC) policies for implementation of "Complete Streets".

The preferred package of multimodal improvements must be feasible, equitable, cost-effective, and have community support. The preferred multimodal package of improvements will serve to systematically guide future SR 29 corridor programming decisions over a 20-year timeframe based on available funding. Multimodal improvements, parallel capacity, operational, and telecommunication strategies were a key focus of the SR 29 CMCP.

Requisite technical information consistent with State and Federal grant program guidelines and implementation phasing of the multimodal improvement package were also key elements of the SR 29 CMCP. In order to ensure that the SR 29 CMCP successfully serves to inform future Solutions for Congested Corridors Program (SCCP) grant applications, the SR 29 CMCP was prepared following Caltrans' *Comprehensive Multimodal Corridor Plan Guidelines* (December 2018) and *Corridor Planning Process Guide* (February 2020). The SCCP is a funding program created by Senate Bill 1 (Beal, 2017), also known as the Road Repair and Accountability Act of 2017.



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NAPA VALLEY TRANSPORTATION AUTHORITY
SR 29 COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

REGIONAL CONTEXT

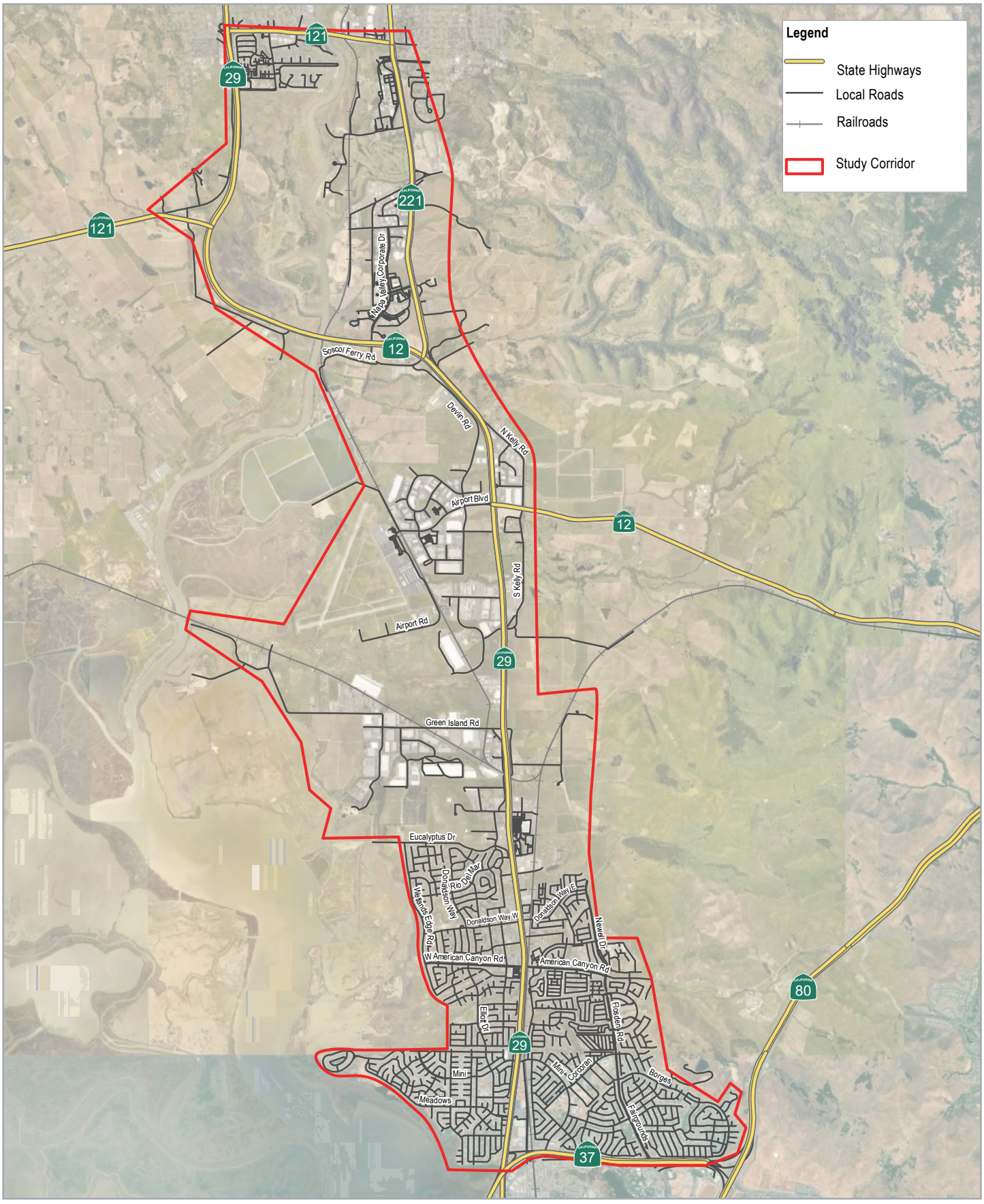
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FIGURE 1

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NAPA VALLEY TRANSPORTATION AUTHORITY
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SR 29 CMCP
STUDY CORRIDOR

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FIGURE 2

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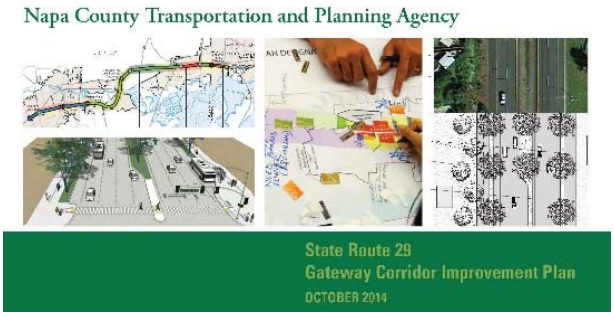
Study Approach

To determine the most cost-effective solution for resolving the various operational and safety needs on the SR 29 corridor, the SR 29 CMCP holistically examines the existing and future operational and safety performance of SR 29 from its juncture with SR 37 to Imola Avenue (approximately 11.5 miles). Using the Smart Mobility Framework approach, a performance-based analysis was performed to develop and evaluate alternative corridor improvement concepts. The results of the performance analysis were combined with substantial input from the public to inform the ultimate selection of the SR 29 preferred corridor concept recommendation. The SR 29 preferred corridor concept with associated multimodal improvements establishes the funding priorities for the corridor that best meet both the local and regional goals while providing the highest return on investment (benefit-cost) of limited regional transportation funding over the next 20 years.

The SR 29 CMCP includes the following primary objectives:

- Draw from existing data sources and apply advanced data collection technology and resources such as multiple "Big Data" sources and video to establish travel characteristics, traffic counts, vehicle speeds, and travel time variation trends to establish an accurate baseline;
- With direct input from the public, develop a preferred corridor concept that: 1) maximizes efficiency and safety; 2) achieves acceptable operating conditions relative to projected future demand; 3) improves air quality, economic development, and social equity; 4) is context sensitive in accord with SR 29's rural and scenic character; and, 5) minimizes potential impacts to the natural environment;
- Consistent with Caltrans' *Smart Mobility Framework 2010* and the *2018 Comprehensive Multimodal Corridor Plan Guidelines* and *SB 1 Solutions for Congested Corridors Program Guidelines* from the California Transportation Commission (CTC), perform a transparent and objective performance-based analysis to identify a preferred corridor concept to calculate life-cycle benefit-costs that support infrastructure investment decisions made by NVTA, MTC, Caltrans District 4, and other stakeholders including the County of Napa and the cities of Napa and American Canyon.

The SR 29 CMCP builds on a solid foundation of plans, policy documents, and community outreach efforts already completed along the SR 29 corridor. In particular, the SR 29 CMCP is a continuation of the outreach, analysis, and findings from the SR 29 Gateway Corridor Improvement Plan (NVTA, 2014).



The SR 29 Gateway Corridor Improvement Plan was a community driven vision and improvement strategy for the southern portion of SR 29 from the Vallejo Ferry Terminal to the Trancas Park & Ride lot (near Redwood Road in the City of Napa). It included extensive public outreach, engaging the community in conversations about transportation challenges on the corridor and identifying possible solutions. The Gateway Plan evaluated current and future travel conditions guided by community input to develop a corridor vision and identified multimodal safety and operation improvements to roadway sections and intersections. Given this prior planning groundwork, the SR 29 CMCP carries forward several

projects identified in the Gateway Plan alongside new improvement concepts and strategies for evaluation and community feedback.



The SR 29 CMCP expands the breadth of analysis beyond what was addressed in the SR 29 Gateway Corridor Improvement Plan. The CMCP broadens the planning area by including parallel facilities east and west of the highway and expands the technical analysis and performance assessment of the identified improvements consistent with State guidance. However, the SR 29 CMCP study area ends south of Imola Avenue, rather than the Trancas Park & Ride lot.

Public Outreach Overview



An effective community engagement program creates confidence in the planning process, promotes broad-based understanding, and reflects the interests and needs of the community. Successful implementation of the improvements recommended in this plan will require cooperation between NVTA, Napa County, the cities of Napa and American Canyon, and the community as a whole.

The SR 29 CMCP pivots off the prior Gateway Plan community engagement efforts. Gateway Plan input primarily focused on the identification of problem areas and needs which helped inform improvement recommendations. The SR 29 CMCP community engagement was strategically targeted to gauge the public's support for the SR 29 CMCP candidate improvement concepts.

The SR 29 CMCP outreach effort is robust in its focus on reaching diverse communities. This outreach effort includes the following:

- Community Workshops
  - November 19, 2019
  - April 23, 2020
- Staff Working Group, including:
  - Napa Valley Transportation Authority (NVTA)
  - City of Napa
  - City of American Canyon
  - Napa County
  - Caltrans District 4
- Stakeholder Committee
- Media
- Project Logo Branding and Project Information Cards
- Online Engagement
- Interactive Mapping Tool

The input received through these various channels helped inform the SR 29 preferred improvement concept and associated multimodal improvements. The community workshops, their participation and insights as well as each of the other outreach efforts are more fully described in the Public Outreach section of this report.

Organization of this Plan

This plan is organized into seven chapters. These chapters include:

- Chapter 1 – Introduction: includes a brief study background, study objective, approach/purpose and need, public outreach overview and organization of this SR 29 CMCP document
- Chapter 2 - Planning Guidance and Metrics: examines past planning documents for planning context and the Caltrans Smart Mobility Framework for performance criteria for selection of priority of improvements
- Chapter 3 - Public Outreach: summarizes outreach process conducted to gather feedback on potential solutions and preferred concepts
- Chapter 4 - Existing Conditions: documents findings from field observations, technical analyses, and models
- Chapter 5 - Corridor Solutions: outlines the potential improvements identified for the corridor based on the existing conditions analysis and prior outreach conducted during the SR 29 Gateway Corridor Improvement Plan
- Chapter 6 - Performance Assessment: evaluates the preferred concept under current and future conditions based on performance metrics described in the Introduction
- Chapter 7 - Preferred Corridor Plan: describes the Preferred Corridor Plan that evolved from the Public Outreach and Performance Assessment efforts

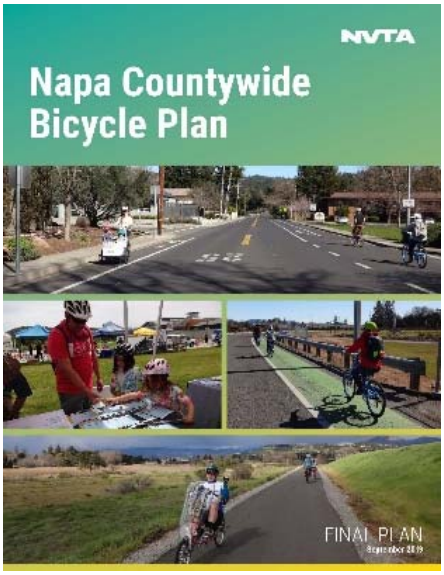
In addition, appendices provided under separate cover have more detail on analysis methodology, data, and findings as well as community feedback.

2 - Planning Guidance and Metrics

In providing an overall framework and planning guidance for the preparation of this SR 29 CMCP, an understanding of all past transportation related planning studies was needed as well as the performance criteria for establishing a Comprehensive Multimodal Corridor Plan that meets mobility needs, is fundable and implementable. For this planning effort, the Caltrans *Smart Mobility Framework 2010,* as described in the following pages was utilized. It is consistent with both the *2018 Comprehensive Multimodal Corridor Plan Guidelines* and the *SB 1 Solutions for Congested Corridors Program Guidelines* from the California Transportation Commission (CTC).

Planning Context

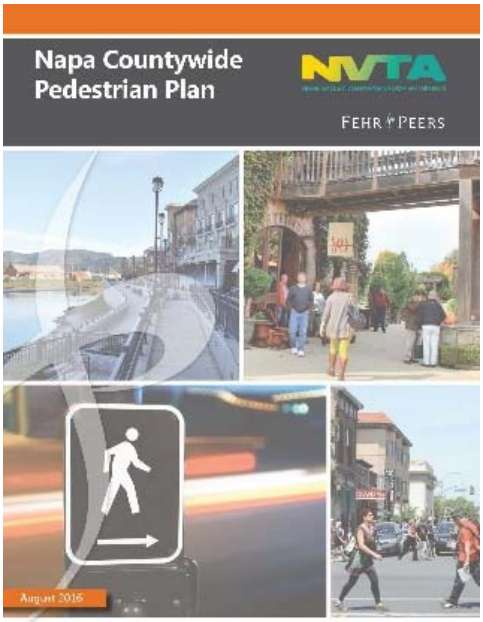
In addition to the SR 29 Gateway Corridor Improvement Plan, several other related planning documents were used to help inform the SR 29 CMCP. These are described below. It should be noted that the Caltrans District 4 System Planning division is currently developing the SR 29 Transportation Concept Report (TCR). As a key partner in the development of the SR 29 CMCP, Caltrans District 4 opted to delay completion of the SR 29 TCR until after adoption of the SR 29 CMCP to ensure the latest planning concepts for the corridor are considered for inclusion.



Countywide Bicycle Plan (2019)

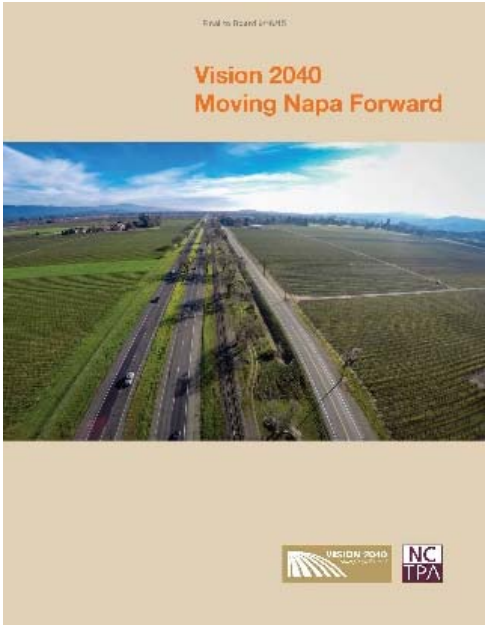
The 2019 Napa Countywide Bicycle Plan outlines a strategy to make bicycling accessible and appealing to the broader county community, beyond those who have traditionally identified themselves as bicyclists. The plan focuses on developing low-stress bicycle routes, improving safety, and improving access for disadvantaged communities.

Identified improvements in the SR 29 CMCP study area include closing gaps in the San Francisco Bay Trail and the Napa Valley Vine Trail. A shared use path is also recommended on SR 221 from SR 29 to Imola Avenue, and bicycle lanes are recommended on SR 29. In American Canyon, shared use paths are proposed for both sides of SR 29 in addition to parallel off-street bicycle routes along Devlin Road and South Kelly Road.



Countywide Pedestrian Plan (2016)

The 2016 Countywide Pedestrian Plan aims to improve safety, convenience, and accessibility for people walking in Napa County. In addition to recommending new sidewalks and accessibility features, the Pedestrian Plan carries forward recommendations for larger-scale improvements that would positively impact the experience for pedestrians, including roundabouts at First Street at SR 29.



Countywide Transportation Plan – Vision 2040: Moving Napa Forward (2014)

The Vision 2040 plan sets long-range goals and investment strategies for all modes of transportation in Napa County over the next 25 years. In addition to identifying multimodal improvements, it highlights the nexus between multimodal transportation and economic development, public health, and place-making.



Vine Transit Express Bus Corridor Study (2017)

The Vine Transit Express Bus Corridor Study identified and recommended operational and capital improvements for the express bus system in the Napa Valley. Many of these solutions are evaluated in this CMCP, including queue jumping, use of shoulders, and station improvements.



Caltrans District 4 Bike Plan (2018)

The Caltrans District 4 Bike Plan is the first of its kind in the State, evaluating bicycle needs across the Bay Area's State transportation network. The plan identifies infrastructure improvements to enhance bicycle safety and mobility and remove barriers to bicycling in the region. The plan identifies SR 29 as a highway opportunity to implement parallel trail or on-highway separated bikeways, with the SR 29 alignment through American Canyon in particular noted as a high-priority project..

Smart Mobility Framework

Caltrans' *Smart Mobility Framework 2010: A Call to Action for the New Decade* provides a broad planning framework to guide multimodal and sustainable transportation planning and project development. It also provides tools to assess how plans, programs, and projects meet Smart Mobility goals throughout the State.

Smart Mobility moves people and freight while enhancing California's economic, environmental, and human resources by emphasizing convenient and safe multimodal travel, speed suitability, accessibility, management of the circulation network, and efficient use of land.

The Smart Mobility Framework is premised on six key objectives: Location Efficiency; Reliable Mobility; Health and Safety; Environmental Stewardship; Social Equity; and, Robust Economy. These six objectives are informed through the application of seventeen candidate performance measures. The Smart Mobility Framework process is consistent with both the 2018 Comprehensive Multimodal Corridor Plan Guidelines and the SB 1 Solutions for Congested Corridors Program Guidelines from the California Transportation Commission (CTC).



Source: Caltrans' Smart Mobility Framework 2010: A Call to Action for the New Decade

The fundamental premise of the Smart Mobility Framework is to ensure that planning or programming decisions for transportation improvements are performance based, transparent, and address sustainable outcomes and objectives. The performance metrics selected for the SR 29 CMCP informed each of the six Smart Mobility Framework objectives to ensure that the resulting improvement recommendations provide a balanced, sustainable, and multimodal assessment of current and forecast corridor conditions. Requisite rubrics include: planning level cost opinions; vehicular delay and buffer time reduction; level of traffic stress scores; mode shift and vehicle miles traveled (VMT) reduction; collision reduction benefit; health and air quality benefit; societal cost and benefit monetization factors (per Caltrans 2018 Economic Parameters); and return on investment (i.e., benefit-cost). Equal attention will be given to documenting the beneficial outcomes of measures not directly reflected in the benefit-cost assessment. These include: Plan Consistency (with existing plans); Policy Consistency (NVTA, the City and County of Napa, City of American Canyon and Caltrans); Environmental/Institutional Sensitivity; Adaptation; Economic Development and, Community Acceptance. Metrics selected for this SR 29 Plan are described on the following section. Results from this analysis were combined with substantial input from the public to inform the selection of the preferred multimodal corridor improvement package.

Performance Metrics

The performance metrics selected to evaluate this Plan are coordinated with the six objectives outlined in the Smart Mobility Framework to ensure the resulting improvement recommendations provide a balanced, sustainable, and multimodal assessment of current and future corridor conditions.

Many of these performance measures do not have established standards but were analyzed to better understand the existing and future operational characteristics of SR 29 and inform a comparative analysis of improvement concept alternatives. Use of additional metrics other than vehicular Level of Service (LOS) is consistent with the Smart Mobility Framework and with the recent Senate Bill (SB) 743 intended to streamline the California Environmental Quality Act (CEQA) process. Some metrics such as delay, collision reduction, mode shift, and vehicle miles of travel reduction can be monetized and were incorporated into a benefit-cost analysis. Other quantifiable indices, such as suitability scores (i.e. level of traffic stress analysis), adaptation assessments, economic development assessments, and environmental justice impacts, etc. are not conducive to being monetized. Although some of the presented performance metrics cannot be monetized, assessment of the results of these analyses provide value to informing improvement recommendations.

The measures of effectiveness for the SR 29 CMCP performance metrics and analysis tools used to generate each measure of effectiveness is mapped in matrix form in Table 1. Also shown is whether the measure can be monetized for inclusion in a benefit-cost assessment. The performance measures by Smart Mobility Framework objective are described on the following pages.

Table 1: Performance Measures of Effectiveness and Analysis Tools

Analysis Purpose	Measure of Effectiveness	Model or Analysis Tool											Monetized Benefit?
		Solano-Napa ABM	Microsimulation	Level of Traffic Stress	NCHRP 552 Method	TCRP 118 Elasticity	HSM Part C CMFs	SB1 Emissions Calc.	GIS Analysis	Online Mapping Tools	Literature Review	NPMRDS/INRIX	
Baseline Travel Demand	Trips, Ridership, VMT	■											Y
Future Travel Demand	Trips, Ridership, VMT	■											Y
Roadway Operations	Delay, Buffer Time, Throughput		■									■	Y
Transit Ridership	Ridership, VMT					■					■		Y
Pedestrian/Bike Connectivity	Access Indices			■					■				N
Pedestrian/Bike Mode Shift	Trips, VMT				■				■				Y
Safety	Collision Reduction, Rate	■				■	■		■				Y
Air Quality	Emissions (criteria, GHG)	■	■		■	■		■					Y
Social Equity	Access, Benefit/Burden	■		■					■	■			N
Economic Development	GRP, Jobs, Income		■						■		■	■	N
Health	VMT	■			■					■			Y
Adaptation	Network Vulnerability								■	■	■		N

Location Efficiency

Accessibility and Connectivity

Bicycle Level of Traffic Stress (Bicycle LTS) measures a bicyclist's perceived sense of risk associated with riding in or adjacent to vehicle traffic. Roadways are assigned an LTS score based on posted speed limit, number of travel lanes, the type of bikeway provided, and other factors. Low-stress facilities would be considered by up to 60% of the general population a viable option for biking. Bicycle LTS in the study corridor was evaluated using methodology developed by the Mineta Transportation Institute. The objective is to provide a connected network of low-stress bicycle facilities within the study corridor.

Transit Mode Share

Transit mode share measures the degree that system and service improvements in transit service induce more ridership. The methodologies described in TCRP-118 the Bus Rapid Transit Practitioner's Guide were used to determine the degree of mode shift to transit resulting from proposed service and system transit improvements.

Vehicle Miles Traveled VMT

Vehicle Miles Traveled (VMT) is calculated by multiplying the number of trips and the average segment lengths of a given trip. California's Senate Bill (SB) 743 declares VMT the operative metric used to assess transportation impacts under the California Environmental Quality Act (CEQA). Statewide mandatory implementation of SB 743's provisions will occur on July 1, 2020. VMT is a measure of both transportation and land use efficiency given that shorter trips or trips not requiring an automobile will result is less VMT.

Reliable Mobility

Multimodal Service Quality

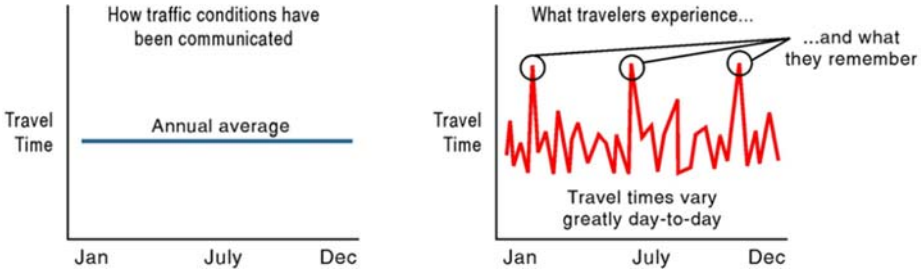
Baseline service quality in the SR 29 corridor was empirically based using travel time data sets from INRIX and the National Performance Monitoring Research Data Set (NPMRDS). The Federal National Performance Rule Congestion Threshold performance measure was used to determine the performance of roadway segments within the study corridor: Uncongested (>= 60 % of free-flow) vs. Congested (< 60% of free-flow).

To forecast corridor performance a VISSIM micro-simulation model was developed to determine corridor-wide person throughput, vehicle throughput, vehicle miles of travel and travel time, travel time index (TTI), and delay.

Intersection operations were also quantified using the SR 29 micro-simulation model through the determination of Level of Service (LOS) at key intersections. LOS is a qualitative metric that describes the experience of motorists. Intersections and approaches are assigned scores from "A" through "F" with A being free-flowing traffic with little to no congestion and F being highly congested. LOS criteria are established to determine whether a given roadway facility is providing the desired quality of service. The methodologies used to determine LOS (i.e. delay, speed, density) were based on the Highway Capacity Manual (HCM) 6th Edition. Caltrans operating standards have been applied that identify the cusp between LOS C and D as the acceptable threshold for SR 29.

Multimodal Service Reliability

Travel time reliability is defined as the variation in travel time for the same trip from day to day ("same trip" implies a trip made with the same purpose, from the same origin, to the same destination, at the same time of the day, using the same mode, and by the same route). If variability is large, the travel time is considered to be unreliable, because it is difficult to generate consistent and accurate estimates for it. If there is little or no variation in the travel time for the same trip, the travel time is considered to be reliable.



Two sources of the travel time data were used for the SR 29 CMCP, a combination of INRIX data (for passenger vehicles and trucks combined) and NPMRDS data. These data were used to establish baseline passenger car and freight travel time reliability for the SR 29 CMCP. The following performance metrics for passenger vehicles were generated:

- Buffer time
- Buffer time index

Both the national rule's definition of reliability (based on 80th percentile speed) and the HCM definition of reliability (based on 95th percentile speed) were applied.

To estimate the change in reliability (buffer time only) as a result of the SR 29 CMCP improvement concepts, the change of travel time reliability was holistically projected for each SR 29 CMCP alternative under future year conditions. The relative change in the Travel Time Index (TTI) between baseline and future was applied to adjust the empirically based NPMRDS baseline estimate of buffer time. This assumes that the effect of construction, weather, and incidents reflected in the most recent 12 months of NPMRDS data is reasonably reflective of the frequency of like events in the future.

Health and Safety

Pedestrian and Bicycle Mode Share

To estimate the induced demand associated with the bicycle improvements proposed in the study corridor, the National Cooperative Highway Research Program (NCHRP) 552 methodology provided in the Guidelines for Analysis of Investment in Bicycle Facilities was utilized. The analysis quantifies the induced demand mode shift (induced demand) associated with the proposed improvements, and monetizes the annualized mobility, health, recreation and decreased auto use benefits provided by the projected mode shift at high, moderate and low estimates. The estimated mode shift is then converted to VMT reduction by applying an average trip length estimate.

Design and Speed Suitability (i.e., Collision Reduction Potential of Infrastructure Improvements)

Based on the contributing factors from the baseline collision hot-spot assessment, Parts B and D of the Highway Safety Manual (HSM) 2010 were applied to identify location-specific and corridor-wide countermeasures. At intersections, Part C of the HSM was applied to estimate the potential safety

performance and crash reduction potential of identified infrastructure design treatments. Estimated collision reductions are then monetized using societal cost estimates from the Caltrans 2018 Economic Parameters.

Environmental Stewardship

Vehicle Emissions (Criteria Health-Based Pollutants and Climate Change Pollutants)

Corridor and intersection-specific on-road mobile sources of health-based criteria pollutants (including VOC, NOx, and PM_{10}) and climate change pollutants (greenhouse gases) were estimated using the California Transportation Commission (CTC) Emissions Analyzer which is based on modified base emission rates consistent with the California Air Resources Board (CARB) emissions model EMFAC.

Adaptation

A qualitative assessment of the degree of vulnerability and sustainability of future transportation investments in the SR 29 corridor as well as potential benefits associated with evacuation responses to climate change related events such as flood and wildfire was determined using the Caltrans Vulnerability Mapping web-based resources.

Social Equity

Equitable Distribution of Benefits and Impacts

A qualitative assessment of the distribution of benefits (i.e., access to and utilization of) and impacts (construction, environmental, and right-of-way impacts) of the proposed future transportation investments in the SR 29 corridor relative to advantaged and disadvantaged communities was determined through application of Cal-environ web-based mapping resources.

Robust Economy

Return on Investment

To provide an indication of the projected return on investment of the proposed investment in the SR 29 corridor, a holistic 20-year life cycle benefit-cost (B/C) metric is computed based on the net present value (i.e. life cycle duration using a discount rate of four percent) incorporating the following five measures of effectiveness:

- Safety Benefit (predicted collision reduction)
- Health Benefit (mode shift to active transportation)
- Reduced Vehicle Operating Cost Benefit (VMT reductions)
- Delay and Buffer Time Reduction Benefit (delay and buffer time savings)
- Vehicle Emission Reduction Benefit (VMT and vehicular operations i.e., delay reductions)
- Operations and Maintenance Costs
- Initial Capital Costs

Monetized benefits were based on 2016 / 2018 societal cost parameters developed by Caltrans. Improvement costs (capital and operations and maintenance) used a format based on Caltrans preparation guidelines for developing project planning cost options.

The following assessments, though qualitative, relate to the robust economy objective given the importance of ensuring and protecting the integrity and sustainability of the proposed SR 29 corridor investment.

Economic Development

An economic assessment using IMPLAN economic multipliers of the short- and long-term economic impacts of the proposed investments in the SR 29 corridor on Gross Regional Product, job creation and income.

Plan/Policy Consistency

A qualitative assessment of the degree that the proposed investments in the SR 29 corridor are politically and institutionally feasible and implementable.

Emerging Technologies

A qualitative assessment of the degree that the proposed investments in the SR 29 corridor are compatible with emerging transportation technologies and service trends.

Data Collection/Retrieval

Performance measures require data. The following data sources were tapped to collect/retrieve data needed to operationalize the performance measures used for the SR 29 CMCP.

Longitudinal Employment-Housing Dynamic (LEHD) Origin-Destination Data

Longitudinal Employer–Household Dynamics (LEHD) data is primarily based on Unemployment Insurance (UI) earnings data and the Quarterly Census of Employment and Wages (QCEW), and censuses and surveys. Firm and worker information are combined to create job level quarterly earnings history data, data on where workers live and work, and data on firm characteristics, such as industry. The most recent available LEHD data (2017) was utilized.

Streetlight Data Origin-Destination Data

Streetlight Data is cell data including navigation-GPS and other location-based data from connected cars, trucks, and location apps collected on an “opt-in” basis. Streetlight also uses publicly available Census, traffic counts, and points of interest data. This sample-based data is expanded, tracked and mapped using proprietary algorithms to determine travel characteristics including origins-destinations by trip purpose. A full year of Streetlight data for calendar year 2018 was acquired by NVTA for regional planning purposes.

National Performance Monitoring Research Data Set (Speed Data)

Per the National Performance Management Measures Final Rule, the preferred data for complying with the National Highway Performance Program is NPMRDS from FHWA. The NPMRDS provides average speed data (five-minute averaging time) for federally defined roadway segments designated as part of the National Highway System (NHS) including SR 29.

Two and half years of NPMRDS speed data was retrieved (1/1/2017 to 7/31/2019). Data was filtered to isolate average weekday conditions (Tuesday-Thursday AM/PM peak periods) for passenger vehicles and heavy-duty truck vehicles separately. To identify the AM/PM peak hour, the peak periods between

6:00 AM to 9:00 PM and 4:00 PM and 7:00 PM were analyzed to identify the most congested continuous 60-minute span for both passenger vehicles and trucks.

After filtering the data to isolate average peak hour conditions, a total of 1,048,575 individual data records were processed to yield 1,195 averaged observations for 278 segments (reflecting both directions of travel) for both passenger vehicles and heavy-duty trucks respectively. The only data cleansing applied was to remove extreme high-speed outliers (e.g., 90+ mph) from the free flow speed, congestion and reliability calculations. All data was processed and summarized based on the NPMRDS segmentation.

INRIX Data (Speed Data)

Through the Metropolitan Transportation Commission (MTC), NVTA accessed one-year of INRIX speed data (7/1/2018 to 6/30/2019). This data was processed similarly to the NPMRDS data. INRIX collects data streams from local transport authorities, sensors on road networks, fleet vehicles such as delivery vans, long haul trucks and taxis. It includes data for additional roadways other than the NHS. This allowed local parallel facilities to SR 29 to be analyzed.

Traffic Counts

AM/PM peak hour intersection turn movement counts utilized in SR 29 CMCP were a combination of existing counts sourced from recent planning studies including: SR 29 Gateway Corridor Plan (1 intersection); Imola Avenue Complete Streets (9 intersections); Soscol Junction PA-ED Traffic Analysis (7 intersections); and Watson Ranch Specific Plan Traffic Impact Analysis (21 intersections). New traffic counts were performed in November 2019 specifically to update or augment the existing traffic count data. These include:

- SR 221 -- Napa Valley Corporate Way, Napa, CA
- SR 29-- N Kelly Rd, Napa, CA Syar Way -- Kaiser Rd, Napa, CA
- Napa Valley Corporate Dr -- Kaiser Rd, Napa, CA
- Enterprise Way -- Kaiser Rd, Napa, CA
- SR 221 -- Kaiser Rd, Napa, CA
- Napa Valley Corporate Dr -- Napa Valley Corporate Way, Napa, CA
- Napa Valley Corporate Dr -- Bordeaux Way, Napa, CA
- Devlin Rd -- Soscol Ferry Rd, Napa, CA
- Stanly Ln -- SR 12, Napa, CA
- Stanly Ln -- Golden Gate Dr, Napa, CA
- Kelly Rd -- SR 12, Napa, CA
- Devlin Rd -- S Kelly Rd, Napa, CA
- Devlin Rd -- Tower Rd, Napa, CA
- Airport Blvd -- Devlin Rd, Napa, CA

The source of the SR 29 daily segment counts was the NVTA 2018 Travel Behavior Study. These counts were collected in November/December 2018.

Transit Ridership Data

Transit ridership data for 2019 was provided by NVTA.

SWITRS and TIMS Collision Data

Collision data was obtained from the Statewide Integrated Traffic Records System (SWITRS) for the years between 2014 and 2018. Transportation Injury Mapping System (TIMS) data was also accessed for the same period to cross reference the injury and fatality collision data in SWITRS.

Infrastructure Costs

Planning-level costs for infrastructure recommendations were obtained from existing planning studies and regional transportation planning documents. Where costs were unavailable through these sources, costs were estimated based on industry standard planning level procedures.

Societal Costs

Societal cost data were sourced from the 2018 Economic Parameters published by Caltrans. These societal costs are consistent with parameters resident in the Caltrans benefit-cost analysis tool Cal-BC.

On-line Mapping Resources

On-line mapping tools such as Climate Change Vulnerability (Caltrans District 4), LEHD, and CalEnviroScreen 3.0 were utilized to inform examinations for adaptation, travel pattern and environmental justice respectively.

Analysis Tool Development

Solano Napa Activity Based Model

The Solano-Napa Activity-Based Model (SNABM) is an analysis tool that gives NVTA the capability to generate technical information pertinent to the understanding of travel behavior and transportation network performance within the SR 29 study corridor boundary. This information is critical to the development, updating and monitoring of the NVTA's transportation capital improvement program, analysis of specific transportation projects and programs, as well as the General Plan land use and transportation strategies and policies of its member agencies including the cities of American Canyon and Napa and the County of Napa. The SNABM model yields the future volume sets (i.e., roadway segment volumes and intersection turn movements) to inform operational analyses that determine whether a given road segment or intersection will operate acceptably in the future.

The most recent version of the SNABM model including a 2015 Baseline and 2040 out-year was utilized for the SR 29 CMCP. Though the SNABM model has been regionally validated/calibrated, a sub-area validation analysis was performed to better ensure that the SNABM model would generate reasonable forecasts within the study corridor sub-area. The following tasks were performed as part of the sub-area validation:

- Approximately 40 intersection turn movement counts within the SR 29 study corridor boundary were summed to generate AM and PM peak hour segment volume sets for validation purposes;
- For segments not emulating observed counts, select link was performed to identify the TAZs that contribute trips on the link; the peak hour origin-destination pairs were then incrementally adjusted in relative proportion to the link error and the assignment step re-run. This procedure modifies the AM/PM peak hour factors to allow the daily origin-destination table to better emulate peak hour conditions.
- % Root Mean Square Error (%RMSE) was performed for the AM and PM peak hour assignments respectively. Validation criteria was %RMSE of 40% or less overall.

Based on the sub-area validation results in Table 2, the SNABM model was determined to be suitable for generating reasonable travel forecasts within the SR 29 study corridor. A detailed description of the SNABM sub-area validation analysis is provided in Appendix A.

Table 2: SNABM Sub-Area Validation Results

%RMSE	AM PH	PM PH
Original SNABM Subarea	57.3%	49.2%
After Subarea Validation	41.5%	34.9%

A 2015 baseline model run and two travel forecast scenarios were developed: 1) a 2040 Programmed Forecast that reflected all currently programmed projects (i.e., considered the future baseline); and, 2) SR 29 CMCP Planned Forecast which included all applicable SR 29 CMCP roadway improvements. Coding of network attributes (lane capacity, free flow speed, etc.) for new roadways was based on accepted network coding conventions used by NVTA.

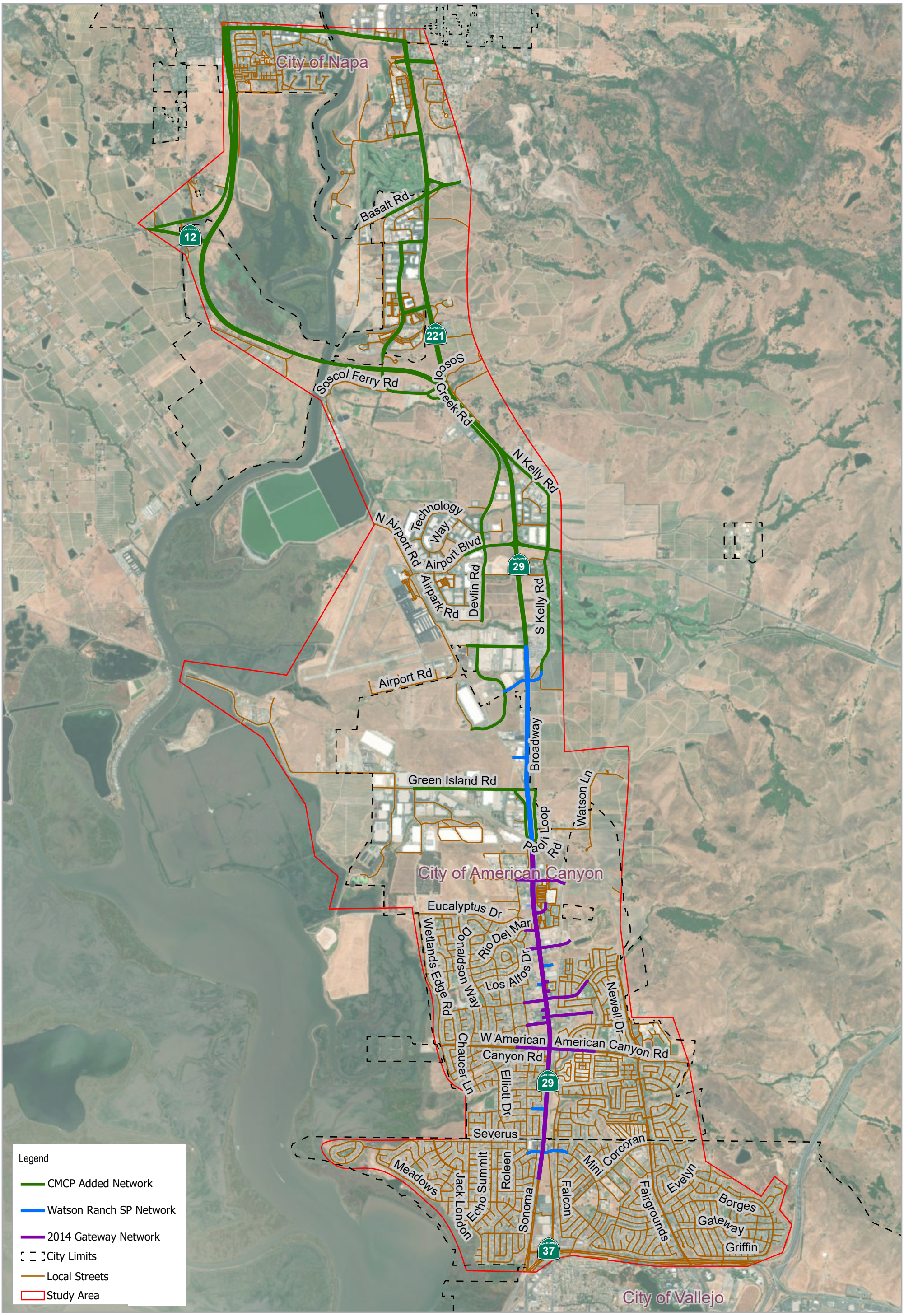
The SNABM model projects approximately 20% growth in AM/PM peak hour traffic levels by 2040. This equates to slightly less than a one percent annual average growth rate over the planning horizon of the plan.

All raw model volumes were processed by applying the AM and PM peak hour model growth to ground counts to essentially "grow" the counts to reflect future year conditions and circulation changes.

SR 29 VISSIM Micro-simulation Model

VISSIM microsimulation software was developed to simulate SR 29 corridor operations under both baseline and future year conditions. The model network was built by amalgamating VISSIM networks completed for other planning studies (SR 29 Gateway Plan and Watson Ranch Specific Plan Traffic Impact Analysis) and new coding to complete the remaining applicable SR 29 CMCP study corridor network. Figure 3 displays the sources by location used to develop the corridor network.

The SR 29 micro-simulation model was validated to applicable criteria established by the Federal Highway Administration (FHWA) *Guidelines for Applying Traffic Microsimulation Software* using INRIX and NPMRDS travel time data. The SR 29 microsimulation model was used to analyze the operational performance using volume sets generated from the 2040 Programmed and SR 29 CMCP travel forecasts. All VISSIM microsimulation runs were based on a minimum 10-minute seeding time, 60-minute analysis time (divided into four 15-minue intervals), and reflect an average of 5 multiple runs. The development of the SR 29 microsimulation model is described in greater detail in Appendix B.



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NAPA VALLEY TRANSPORTATION AUTHORITY
SR 29 COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

MICROSIMULATION MODEL NETWORK DEVELOPMENT

Project No. **11187559**
Revision No. **-**
Date **7/11/2019**

FIGURE 3

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3 - Public Outreach

A robust and targeted public outreach program was created to augment the prior Gateway Plan outreach effort and to gauge public acceptance of specific improvement options.

Outreach efforts included both traditional and non-traditional venues for gathering community input.

These outreach efforts, starting with the Community Workshops, are more fully described in the following sections. Clearly, as will be evident through the process, the input received through these various channels helped inform and guide the analysis and the SR 29 corridor solutions that ultimately lead to the creation of the SR 29 CMCP, itself.



Community Workshops

Two public workshops were held during the course of the plan's development on November 12, 2019 and on April 23, 2020. Both were supplemented with on-line virtual workshops which emulated all materials presented at the traditional workshops. This allowed the results of both workshops to be appropriately merged and summarized together. Presentation materials including all input/responses from the public workshops are provided in Appendix C.



Workshop #1

A public workshop was held on November 12, 2019 to introduce the project to the public, inform the public how to stay actively engaged during its development; and gather feedback from the community on the potential solutions under consideration. Of the 31 attendees, seven were City of American Canyon staff and elected officials and Caltrans staff.

Building on prior community outreach conducted for the SR 29 Gateway Plan, this workshop presented potential improvement concepts for the corridor and asked attendees to share their thoughts and preferences.



Attendees were also asked a series of polling questions about their current experiences on the corridor and their priorities for improvements.

Most respondents reported that driving was their most frequent mode traveled on the SR 29 corridor. Few people said they walk or bicycle on the corridor currently, citing concerns about safety and a lack of dedicated paths. Transit on the corridor is not commonly used by attendees, due to concerns about travel time.

Workshop attendees rated improving safety for people walking and driving as their highest priority for the corridor, followed by improving safety for transit and then people bicycling. Most that choose not to walk cited safety concerns or lack of designated paths. Similarly, the reason most often cited for not biking was fear for safety at 52.38%, followed by lack of paths/connections at 28.57%.

Reducing vehicle congestion and improving signal timing were also identified as top priorities, in addition to improved connectivity for bicyclists.

Potential solutions rated as top priorities by attendees include:

- Increase parallel roadway capacity
- Multimodal improvements on SR 29 between SR 37 and Soscol Junction
- Intersection improvements on SR 29 at Airport Drive and at Carneros Highway
- Transit frequency improvements on SR 29 including queue jumps or part-time use of shoulder for transit vehicles

A complete summary of Workshop #1 is provided in Appendix D.

Workshop #2

The second public workshop was held on April 23, 2020 to present the draft SR 29 CMCP including the proposed multimodal improvements to the community for comment. In recognition of the COVID-19 Pandemic and the Shelter-at-Home order for the Napa County, and the rest of the Bay Area, this workshop was held entirely virtually. The April workshop was performed remotely via webinar to the public. The workshop was attended by members of the general public as well as City of American Canyon staff and elected officials and Caltrans staff. A complete summary of Workshop #2 is provided in Appendix D.

Staff Working Group

A staff working group was convened to guide development of this Plan and ensure consistency with the goals and complementary planning efforts of partner agencies in the region. Members included representatives from the following agencies:

- Napa Valley Transportation Authority (NVTA)
- City of Napa
- City of American Canyon
- Napa County
- Caltrans District 4

Each of these agencies were a key partner in implementing the recommendations in this Plan. The group met a total of nine times throughout the plan's development (monthly) to provide guidance and oversight on the process and review draft deliverables and documents at key milestones.

Media

Various forms of social media were used for posting announcements of outreach events including Facebook, Twitter and Next Door. Public announcements of outreach events were also made on various news and radio media outlets including the American Canyon Eagle, the Napa Valley Register and KVON Wine Country Radio station.

A mailing list of interested community members was also developed to share project updates and information about outreach opportunities. More than 160 people provided their email address for this list.

Project partners and stakeholders were also encouraged to use their existing social media platforms to share information about the project and outreach opportunities.

Project Logo Branding and Project Information Cards

To distinguish the SR 29 CMCP planning effort from other on-going planning activities by NVTA and partnering agencies a Project Logo was developed. This branding was placed on all project deliverables and products.





In addition, a Project Information Card was also developed to encourage the use of online engagement by the public particularly the use of the interactive mapping tool on the project website (see below). The Project Information Card was printed in both English and Spanish (back-to-back) and provided te SR 29 project website URL.

Online Engagement

To support and supplement public engagement activities, a project website was developed, available at www.sr29corridorplan.com.

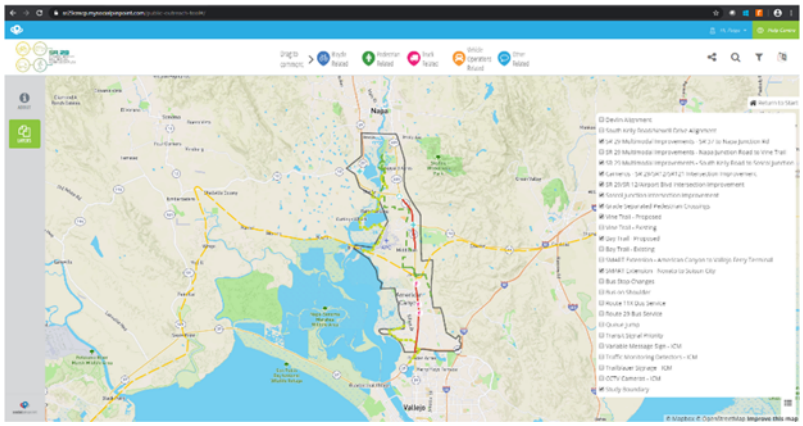
The website was used to share information about outreach events, host online versions of the community workshops, and gather feedback on draft project deliverables.

Over the course of the project study period, the website was visited 259 times by 198 unique website visitors. One survey was completed through the virtual workshop, and ten comments were left through the comment form available on the site. Most input was received through the interactive mapping tool described below.

Interactive Mapping Tool

To supplement in-person engagement and gather additional feedback, an online interactive mapping tool was developed through the engagement platform Social Pinpoint. The mapping tool was made available on the project website beginning in early November 2019 and remained "live" through March 2020.

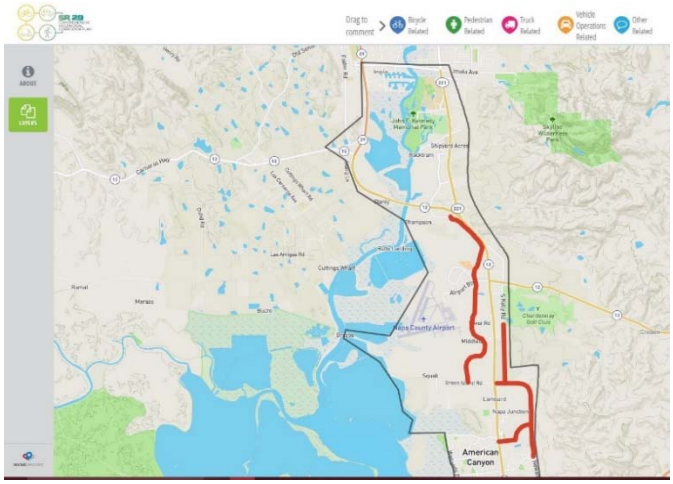
Typically, on-line mapping tools are used to solicit public input on where issues and needs are located by allowing geo-referenced pin-drops and comments to be placed on a map. However, given that extensive outreach to identify existing needs and issues had already been accomplished as part of previous planning efforts, the SR 29 CMCP outreach effort pivoted from earlier efforts to solicit more specific public input on candidate improvement concepts identified by these efforts. This entailed specifically tailoring the on-line mapping tool to show candidate improvement concepts (shown as separate map layers the user could toggle on or off) and provide input on whether they could support the improvement concept and why via a dialogue comment box. This approach allowed the SR 29 CMCP to leverage the previously gathered input on existing conditions and present potential corridor improvement concepts to the public.



The mapping tool, offered in over 70 languages including English and Spanish, presented graphical renditions of candidate corridor improvements and allowed the community to comment on the various options. Users were also able to leave location-specific comments on needs and issues.

Between November 2019 and March 2020, the website was visited 1,451 times by 550 unique users. Seventeen general comments were left and 186 targeted survey responses on the various improvement concepts were provided by the public.

Public input on the various improvement concepts examined as part of the SR 29 CMCP are summarized in the Corridor Solutions section of the plan. This input served to facilitate along with the technical analyses the ultimate selection of improvements to include in the SR 29 preferred multimodal package of improvements.



4 - Baseline Conditions

Regional Context

As described in the Gateway Plan and Vision 2040, SR 29 is an essential north-south connection within the North Bay's transportation network, providing connections to significant east-west routes, including SR 12 and secondary roadways, and SR 121 and SR 221 to the north. Many commuters travel on SR 29 from affordable housing in Solano County to jobs in Napa or Sonoma Counties, or from the Napa Valley to jobs in the greater Bay Area. On weekends and during summer and harvest months, the corridor also plays a significant role in bringing tourists to the Napa Valley wine region.

By 2040, the nine-county Bay Area region is projected to have a total of approximately 4.5 million jobs and 3.4 million housing units, or an additional 1.1 million jobs and 660,000 housing units from 2010 levels. The region's population is expected to grow to 9.3 million in 2040, as indicated by economic and demographic trends, housing production, and the Bay Area's unique role in the national and state economies. Within the study area, an additional 30,000 jobs and 10,000 housing units are projected.

As shown in Figure 4 (heat map of existing employment concentrations), SR 29 is also an important corridor for commercial activity and residential access, drawing in commuters from the rest of the region.

Figure 4: Employment Concentrations Served by the SR 29 Corridor

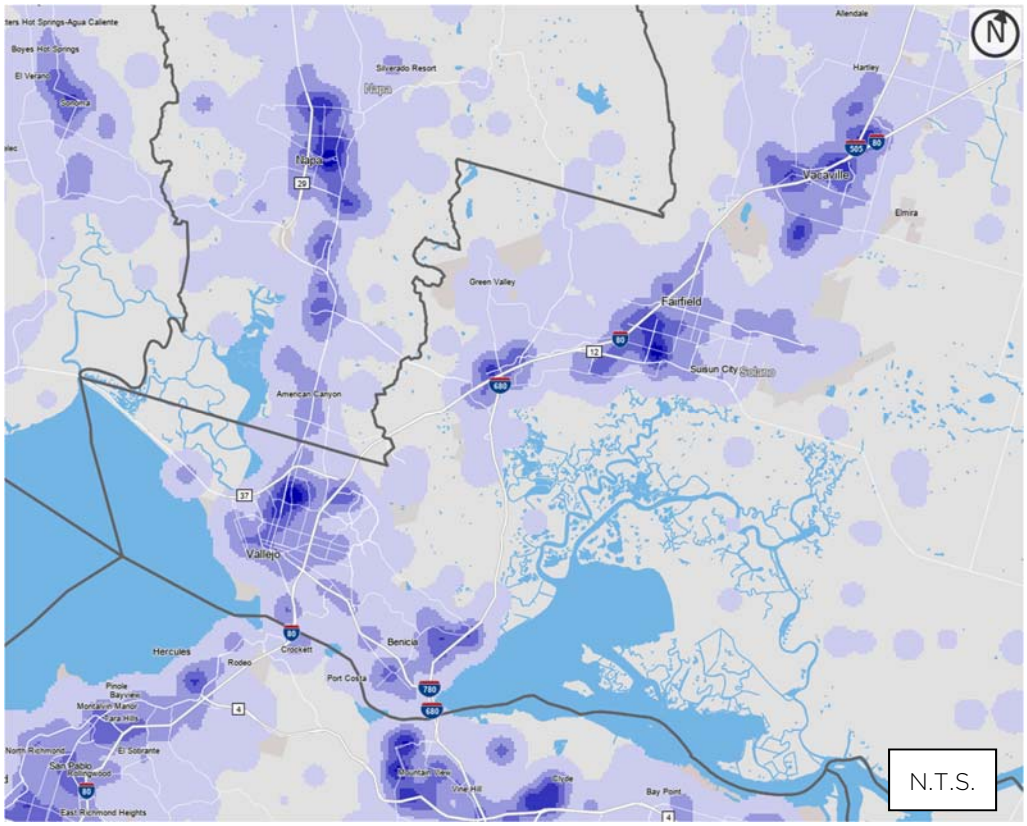


Figure 5 shows the concentration of residents in the study area. Figure 6 shows the concentration of total job locations in the study area. As shown in these figures, significant residential concentrations are found along the study corridor, with equally significant job opportunities. However, as shown in later figures, significant imbalance exists between residential areas and local job opportunities, most significantly in the City of American Canyon, generating a large amount of intercity commute travel along this lifeline corridor between Napa and Solano counties. Within the City of American Canyon itself, job opportunities are concentrated at the northern end of the City, with residential concentrations at the southern end. Lacking parallel facilities to accommodate local commutes within the City, local traffic shares SR 29 with regional traffic even for short trips.

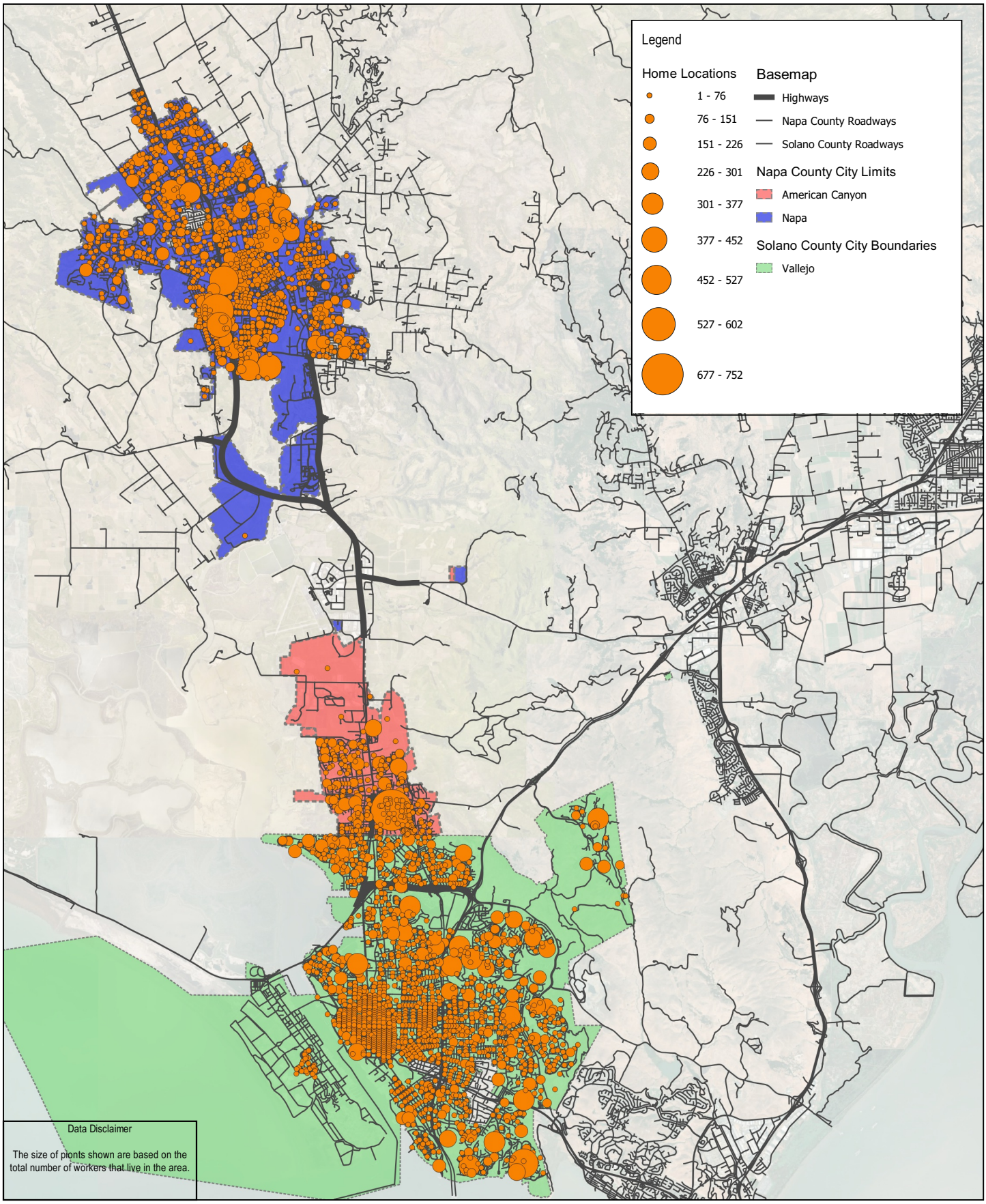
Plan Bay Area and Priority Development Areas

Senate Bill 375 (Steinberg, 2008), also known as the Sustainable Communities and Climate Protection Act of 2008, seeks to implement the statewide greenhouse gas reduction targets set forth by the Global Warming Solutions Act of 2006 (AB 32) by reducing emissions from passenger vehicle. SB 375 added a new element to each Metropolitan Planning Organization (MPO) Regional Transportation Plan (RTP), the Sustainable Communities Strategy (SCS). The Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC), the regional planning agencies for this MPO region, recently prepared Plan Bay Area 2040, which includes the SCS required per SB 375. The SR 29 CMCP is consistent with NVTA's Countywide Transportation Plan, which is consistent Plan Bay Area 2040.

The current Plan Bay Area 2040[1] projects growth in households and jobs through year 2040 and identifies strategies for reducing greenhouse gas emissions from cars and light trucks through land use and transportation planning efforts. These strategies plan for future growth in a way that encourages compact development with a broad array of housing types and transportation choices. To accommodate the Bay Area's projected growth while meeting environmental sustainability goals, Plan Bay Area focuses on directing development into Priority Development Areas (PDAs). PDAs are locally identified nodes of development (such as a corridor, a downtown, or an area around a transit station) that have substantial opportunity for infill housing that supports increased walkability and transit usage.

Region-wide, PDAs are proposed to absorb about 80 percent of new housing and 66 percent of new jobs on about five percent of the total regional land area. This pattern holds true for the one PDA identified in the SR 29 Corridor Planning Area, in American Canyon. In this city, approximately 81 percent of new housing and 67 percent of new jobs are projected to be located in the PDA. In Napa County, another PDA has been identified in Downtown Napa/Soscol Corridor, north and east of the SR 29 study corridor. In Vallejo, the Waterfront and Downtown PDA is located southwest of the SR 29 study corridor.

[1] The preparation of the successor to Plan Bay Area 2040, Plan Bay Area 2050, is currently underway.



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Map Projection: Mercator Auxillary Sphere
Horizontal Datum: WGS 1984

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NAPA VALLEY TRANSPORTATION AUTHORITY
SR 29 COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

RESIDENT LOCATIONS AND CONCENTRATION (LEHD)

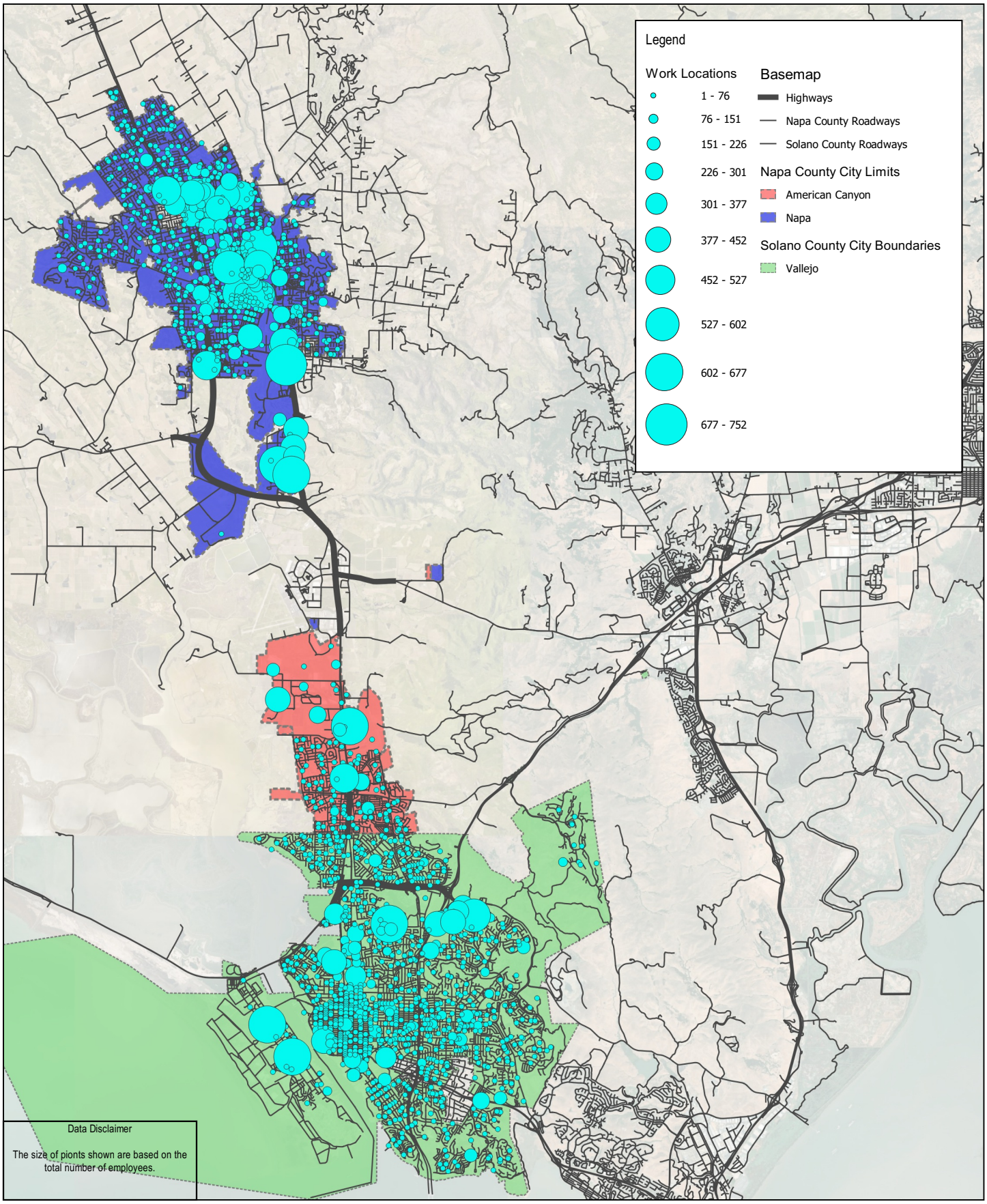
Project No. 11187559
Revision No. -
Date. 03/13/2020

FIGURE 5

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Map Projection: Mercator Auxillary Sphere
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NAPA VALLEY TRANSPORTATION AUTHORITY
SR 29 COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

RESIDENT LOCATIONS AND CONCENTRATION (LEHD)

Project No. 11187559
Revision No. -
Date. 03/13/2020

FIGURE 6

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City of American Canyon

SR 29 is the only continuous north-south roadway through the City of American Canyon, both providing access to homes and local businesses but also acting as a substantial barrier to east-west local travel through the city. In American Canyon, SR 29 is lined with retail commercial uses and other destinations that serve residents and visitors. Local connections to these businesses are limited, and SR 29 often provides the only access. Surrounding urban areas have few north-south routes, so SR 29 serves many local trips. Residential development abuts the roadway on both sides at the southern end of the city, though it is buffered by landscaping. On the east side, the railroad also separates adjacent development from the highway.

Local- and community-serving commercial uses start just south of the intersection of SR 29 and American Canyon Road, and are the predominant land use between there and Napa Junction Road. Uses are auto-oriented, typically single story, and set back from the highway with surface parking and some landscaping. North of Napa Junction Road, land uses transition to light industrial on larger parcels, interspersed with vacant and agricultural land.

Nearly the entire SR 29 corridor that runs through American Canyon has been designated as a PDA by ABAG and MTC. ABAG/MTC give priority to PDAs when issuing technical assistance and capital grants, in exchange for a community's commitment to compact growth and alternative modes within PDAs. The City intends to complete a Specific Plan for the PDA within the next several years.

Most of the PDA has a Community Commercial and Commercial Neighborhood designation under American Canyon's General Plan. These designations allow for a range of retail, office, personal services, and other commercial uses; these designations also allow 50 percent of a site to be used for multi-family residential development.

Unincorporated County of Napa

Immediately north of the American Canyon city limits (and within American Canyon just north of Napa Junction Road), land uses adjacent to SR 29 consist primarily of business and light industrial parks. Many are to the west, clustered near the Napa County Airport, and support the wine industry. Most industrial parcels south of South Kelly Road connect directly to the highway, with intermittent access to roads shared among multiple parcels. This is not the case north of South Kelly Road. Business parks along this corridor typically exhibit a high level of design—buildings are separated from the highway with landscaping, and properties within the Business/Industrial Park portion of the Airport Area Specific Plan are subject to design review with regards to site planning, landscaping, signage, off-street parking, noise control, and outdoor storage facilities.

North of the industrial area, land uses adjacent to the highway are almost entirely rural, comprised of open space (wetlands surrounding the Napa River) and agricultural uses.

Within unincorporated Napa County, parcels abutting SR 29 are generally designated either as Agriculture, Watershed and Open Space or Industrial by the County's General Plan. Urban uses are not permitted on land designated as Agriculture, Watershed and Open Space; however County Policy AG/LU-40 says that "Hess Vineyard area" (just north of American Canyon and east of SR 29) is to be "considered for re-designation to an Industrial designation if [the] Newell [Drive extension] is ever extended north of Green Island Road." However, this is unlikely to occur, as a 2008 voter initiative by the City of American Canyon rerouted Newell [Drive] to connect to SR 29 at Green Island Road specifically in order to preserve the Hess Vineyard.

While most of the corridor is designed for agricultural or industrial uses, exceptions exist: just north and east of the Napa River crossing where the "Napa Pipe" site is re-designated for multi-family with some retail/commercial uses, and annexed to the City of Napa; and south of SR 29 and just east of the Napa River, where land designated as Public-Institutional includes the Napa County Airport and allows for public and quasi-public uses, but also limited commercial uses.

Another asset of this area is the Grape Crusher statue, located just west of the SR 29/Highway 221 intersection. A tourist attraction and significant landmark, the statue helps to signify entrance to the Napa Valley.

City of Napa

While SR 29 is a major route through the city, its design as a grade-separated freeway means that it does not interface directly with adjacent land uses, which are a mix of residential, commercial, office, and institutional developments, and are separated from the highway by landscaping and sound walls. Landscape improvements remain possible, along with gateway identity features at interchanges.

Where SR 29 passes alongside urban uses in the City of Napa, a freeway configuration limits access and land use designations vary. Parcels with commercial designations tend to surround freeway interchanges, while other frontages along the freeway include parcels with Corporate Park, multi-family residential, single-family residential and other designations.

Observed Travel Patterns

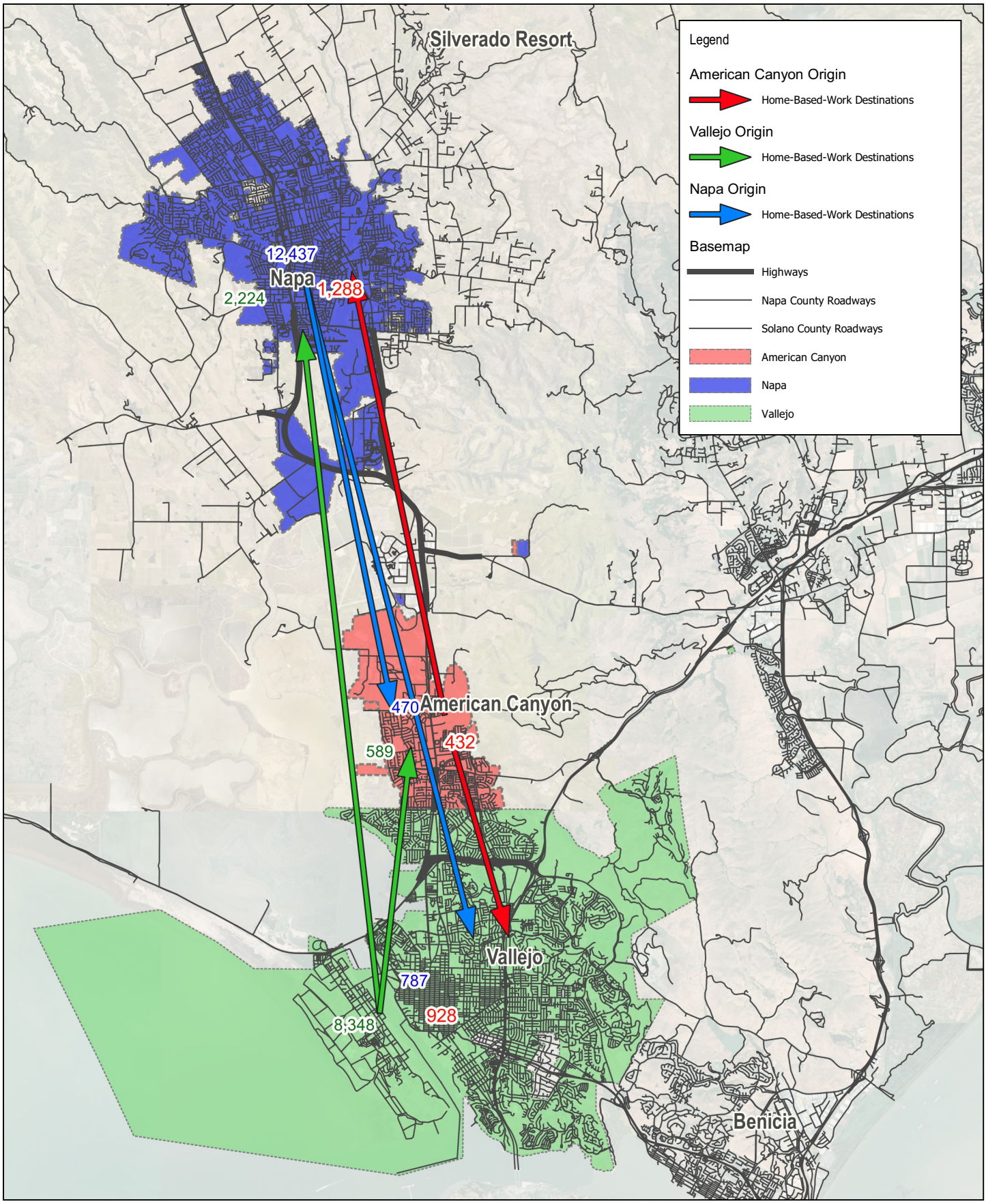
Longitudinal Employer-Household Dynamics Database (LEHD) Data

As shown in Table 3 based on the LEHD journey to work data shows over 6,000 residents of the Cities of Napa, American Canyon and Vallejo commute to their jobs outside their home-city to one of the other two neighboring cities. The vast majority of these trips must traverse SR 29 within the study corridor. Approximately 25,000 residents live and work in their respective jurisdictions. This journey to work origin-destination information is also graphically shown in Figure 7.

Table 3: LEHD Journey to Work Origin-Destination Pairs

Home Location	Work Destination				
	Napa	American Canyon	Vallejo	Other	Total
Napa	12,437	470	787	20,063	39,757
American Canyon	1,288	432	928	7,251	9,899
Vallejo	2,224	589	8,348	45,308	56,469

Looking beyond the three cities, Figure 8 shows the total number of in-coming, intra-, and out-going commuters for the cities of Napa, American Canyon and Vallejo. This data indicates that over 11,000 additional commuters either commute to or from the City of American Canyon to/from places other than the City of Napa or Vallejo. Many of these commuters must traverse a portion of SR 29. Nearly 50,000 commuters do the same from the City of Napa. Over 70,000 commuters either commute to or from the City of Vallejo – many of which are either coming or going to the Bay Area or Sacramento Valley.



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Map Projection: Mercator Auxillary Sphere
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NAPA VALLEY TRANSPORTATION AUTHORITY
SR 29 COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

EMPLOYMENT ORIGINS-DESTINATIONS (LEHD)

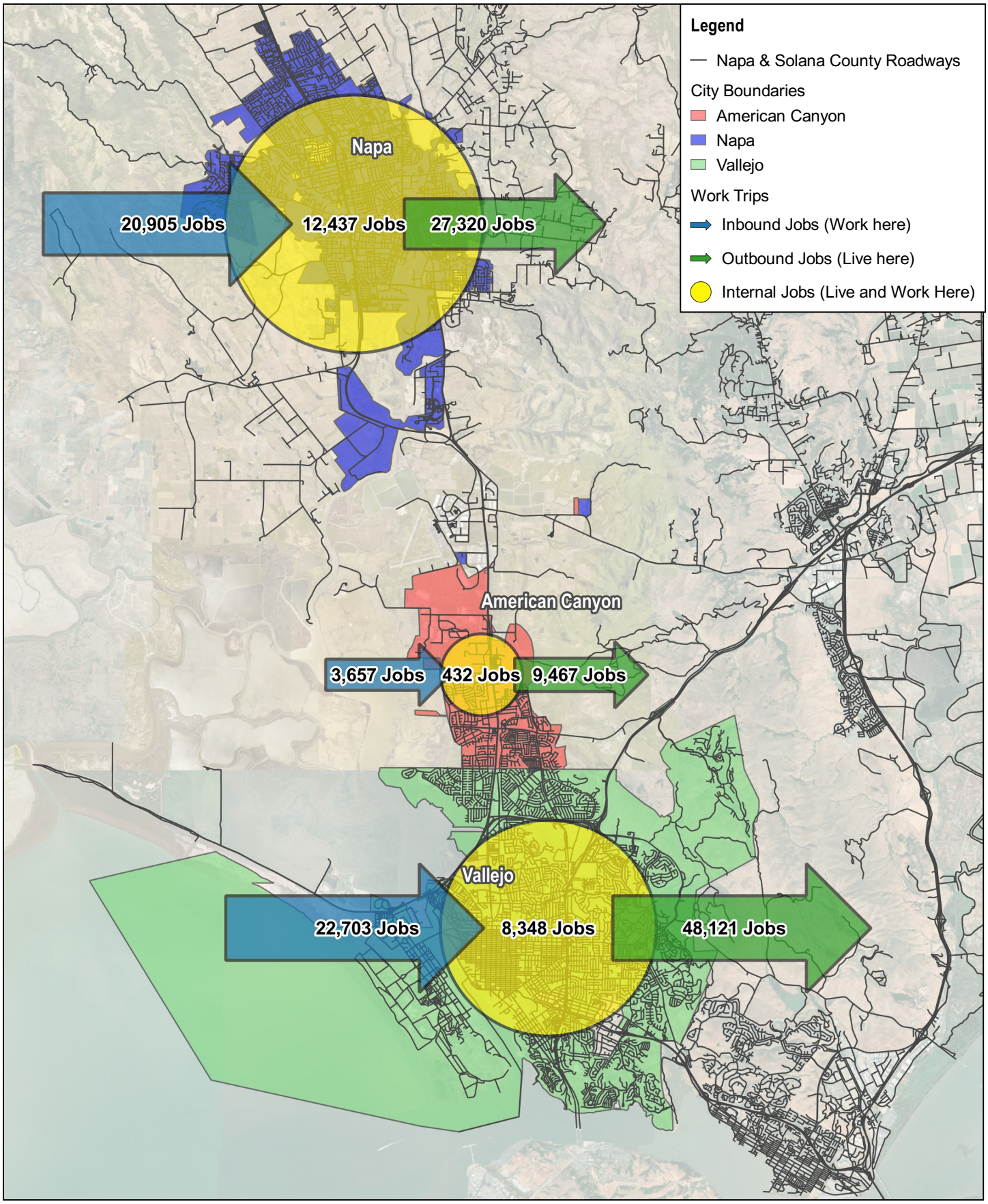
Project No. 11187559
Revision No. -
Date. 05/12/2020

FIGURE 7

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Data Source: U.S. Census Bureau. 2020. LEHD Origin-Destination Employment Statistics Data (2017). Washington, DC. Longitudinal-Employer Household Dynamics Program, acces 03/13/2020 at https://lehd.ces.census.gov/data/#lodes. LODE

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NAPA VALLEY TRANSPORTATION AUTHORITY
SR 29 COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

WORKER INFLOW / OUTFLOW (LEHD)

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Date. 05/12/2020

FIGURE 8

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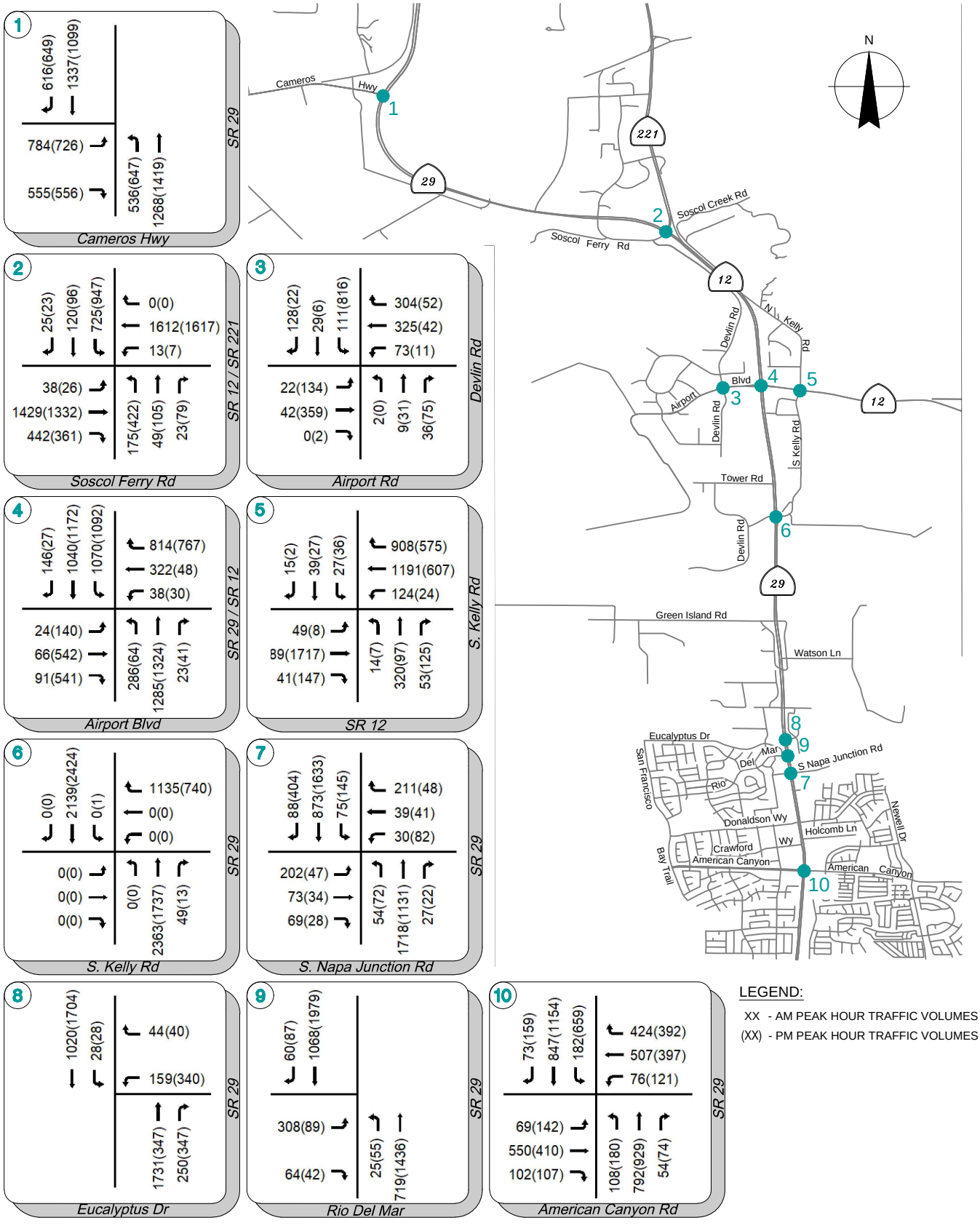
Data Source: U.S. Census Bureau. 2020. LEHD Origin-Destination Employment Statistics Data (2017). Washington, DC: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program, accessed on 03/13/2020 at https://lehd.ces.census.gov/data/#lodes. LOD Created By: rsc

Streetlight Data

LEHD data only provided journey to work origin-destination pairs. Based on Streetlight Data which captures all trip types (versus just journey to work trips), annually, an average of 64% of the traffic that use SR 29 is traveling between destinations located in the cities of Napa and American Canyon. During weekdays this percentage is 66% while on weekends it drops to 61% due to the influx of regional traffic. Countywide, 70% of trips stay within Napa County while 30% travel from or to areas outside Napa County. Countywide, 40% of total trips are intra-city trips in the City of Napa. Further, 63% of trips are less the 5 miles in length. These are trips that are most conducive for non-motorized travel such biking or walking.

Traffic Counts

On a typical weekday, SR 29, north of American Canyon Road, carries 24,000 vehicles travel northbound and 25,000 vehicles travel southbound daily. On SR 29 at the Napa/Solano County Line 19,000 vehicles travel both northbound and southbound daily. At the Napa/Lake County Line 4,500 vehicles travel northbound and 4,000 vehicles southbound on SR 29. These daily volumes do not significantly change during weekends. Existing turn movement counts by source are shown in Figure 9.



SR 29 COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

GHD

NAPA VALLEY TRANSPORTATION AUTHORITY
SR 29 COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

EXISTING TURNING MOVEMENTS

Project No. **11187559**
Report No. **001**
Date **March 2020**

FIGURE 9

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Roadway Operations

Key Intersections

Turn movement counts for approximately 40 intersections were input into the SR 29 microsimulation model for baseline validation purposes. Of the 40 intersections, ten key intersections were selected for detailed operational analysis using microsimulation. As shown in Table 4 and Table 5 below, the following five intersections currently operate below established standards during either the AM or PM peak hours:

1) SR 29/Carneros Hwy (SR 121/12 West)
2) SR 29/SR 221/Soscol Ferry Rd
3) SR 29/Airport/SR 12
4) SR 12/Kelly Road
5) SR 29/American Canyon Road

Each of these intersections experience excessive delays which propagate congestion upstream of these critical nodes.

Table 4: Existing Conditions Level of Service (AM Peak Hour)

Intersection	Control Type[1,2]	AM Peak Hour					
		Intersection Delay (sec)	LOS	Vehicle Throughput	Veh Hrs of Delay (hrs)	Person Throughput	Person Hrs of Delay (hrs)
SR 29 & Carneros Hwy	Signal	37.5	D	4,928	51.3	6,406	66.7
SR 29 & SR 221/Soscol Ferry Rd	Signal	215.7	F	4,881	292.4	6,345	380.2
Airport Blvd/Devlin Rd	Signal	19.2	B	1,329	7.1	1,728	9.2
SR 29 & Airport Blvd/SR 12	Signal	51.7	D	5,120	73.5	6,656	95.5
SR 12 & Kelly Rd	Signal	130.1	F	3,374	121.9	4,386	158.5
SR 29 & S. Kelly Rd	Signal	41.7	D	4,198	48.7	5,457	63.2
SR 29 & Eucalyptus Drive	Signal	8.3	A	3,492	8.0	4,540	10.5
SR 29 & Rio Del Mar	Signal	17.7	B	3,517	17.3	4,572	22.5
SR 29 & S. Napa Junction Rd	Signal	41.8	D	3,663	42.6	4,762	55.3
SR 29 & American Canyon Rd	Signal	45.3	D	4,019	50.5	5,225	65.7

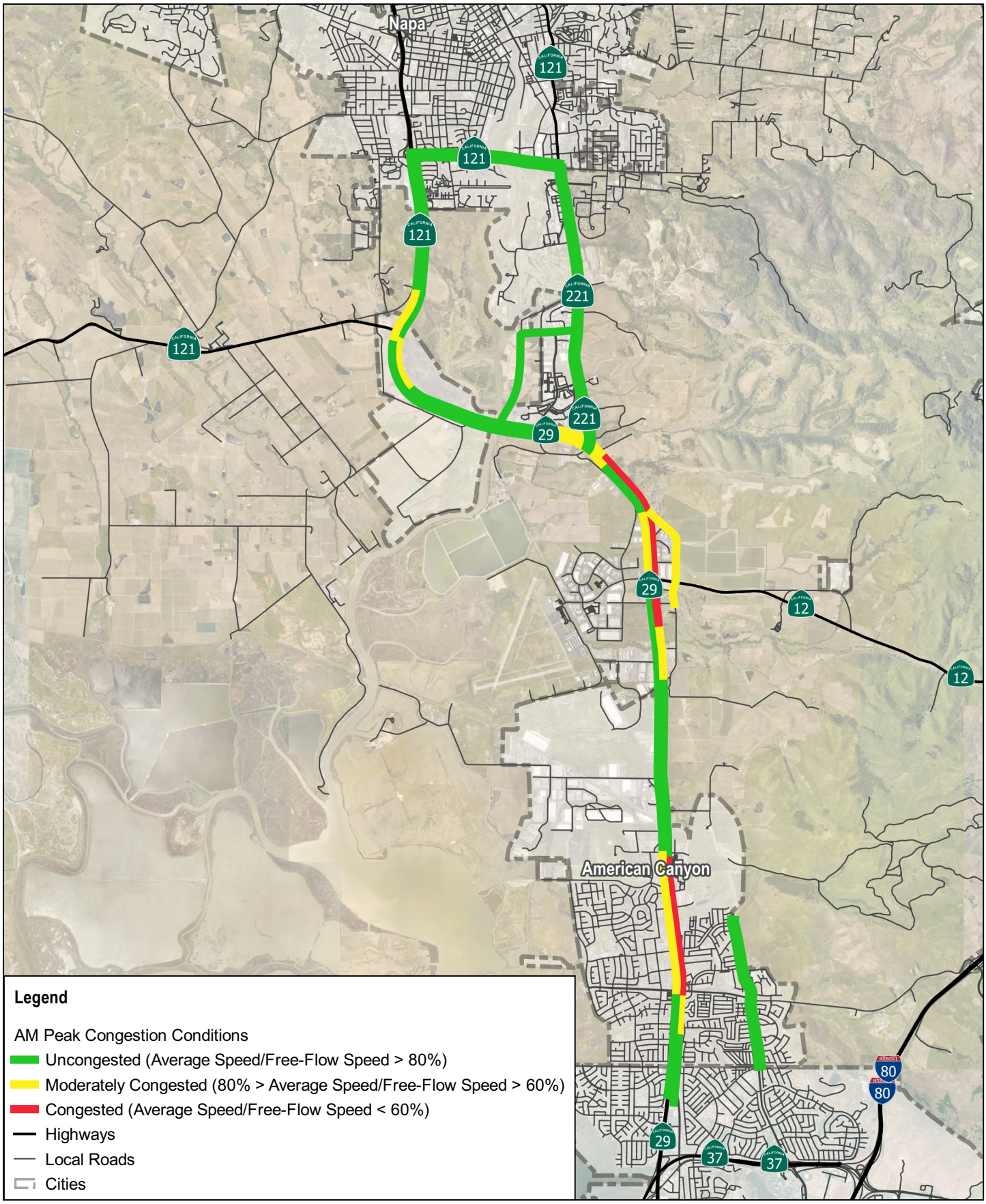
Table 5: Existing Conditions Level of Service (PM Peak Hour)

Intersection	Control Type[1,2]	PM Peak Hour					
		Intersection Delay (sec)	LOS	Vehicle Throughput	Veh Hrs of Delay (hrs)	Person Throughput	Person Hrs of Delay (hrs)
SR 29 & Carneros Hwy	Signal	105.1	F	5,389	157.4	7,006	204.6
SR 29 & SR 221/Soscol Ferry Rd	Signal	129.8	F	5,171	186.4	6,722	242.3
Airport Blvd/Devlin Rd	Signal	18.8	B	1,736	9.1	2,257	11.8
SR 29 & Airport Blvd/SR 12	Signal	114.6	F	5,718	182.0	7,433	236.6
SR 12 & Kelly Rd	Signal	21.2	C	3,317	19.5	4,312	25.3
SR 29 & S. Kelly Rd	Signal	20.5	C	3,564	20.3	4,633	26.3
SR 29 & Eucalyptus Drive	Signal	13.0	B	3,715	13.5	4,830	17.5
SR 29 & Rio Del Mar	Signal	19.1	B	3,768	20.0	4,898	26.0
SR 29 & S. Napa Junction Rd	Signal	51.2	D	4,028	57.3	5,236	74.5
SR 29 & American Canyon Rd	Signal	63.1	E	4,584	80.3	5,959	104.4

Roadway Congestion (Speed-Based Analysis)

The Federal National Performance Rule Congestion Threshold performance measure was used to determine the performance of roadway segment operating conditions within the study corridor. Under the federal definition, a roadway is considered congested if peak period travel speeds fall below 60% of free flow speeds. This includes delays experienced at intersections. The analysis is based on NPMRDS and INRIX speed data collected over a two-year period and reflects the AM/PM peak hours. Given that free flow speed is a key variable for calculating this performance measure, free flow speed was empirically estimated for each roadway segment using NPMRDS data between the hours of midnight and 3 AM.

Congestion Threshold results are graphically presented in Figure 10, Figure 11, and Figure 12 respectively. As shown, during the AM peak hour recurrent congestion occurs on SR 29 in the northbound direction between the junctures with SR 12 and Soscol Junction and between American Canyon Road and Napa Junction Road. During the PM peak hour, the majority of southbound SR 29 operates at less than 60% of free flow speed – from Soscol Ferry Road to American Canyon Road. During the Weekend peak hour, frequent congested conditions occur on SR 29 within the City of American Canyon as well as on SR 29 north of Airport Road/SR 12 through Soscol Junction.



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Map Projection: Mercator Auxillary Sphere
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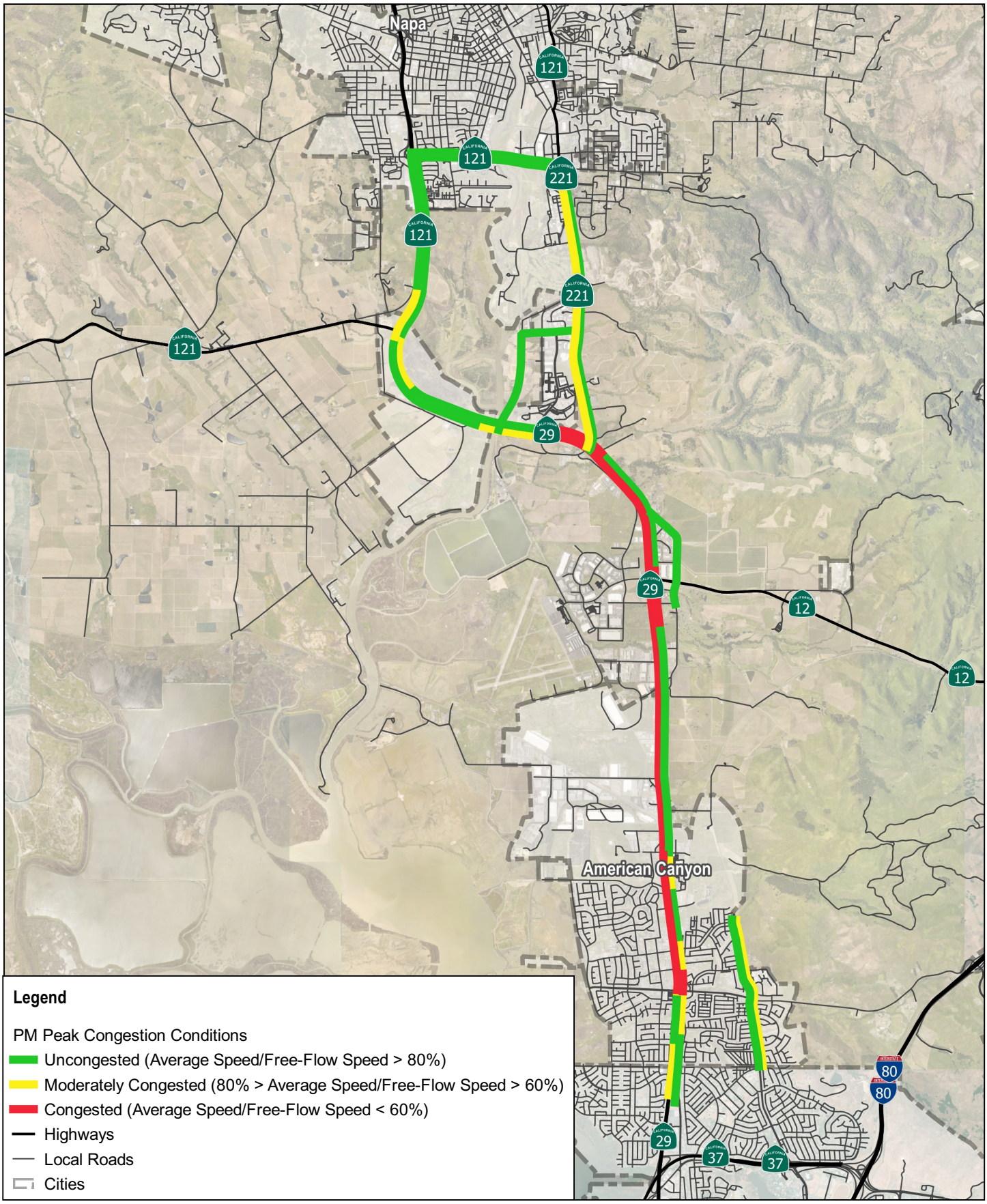
WEEKDAY CONGESTION
AM PEAK HOUR

Project No. 11187559
Revision No. 2
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FIGURE 10

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SR 29 COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

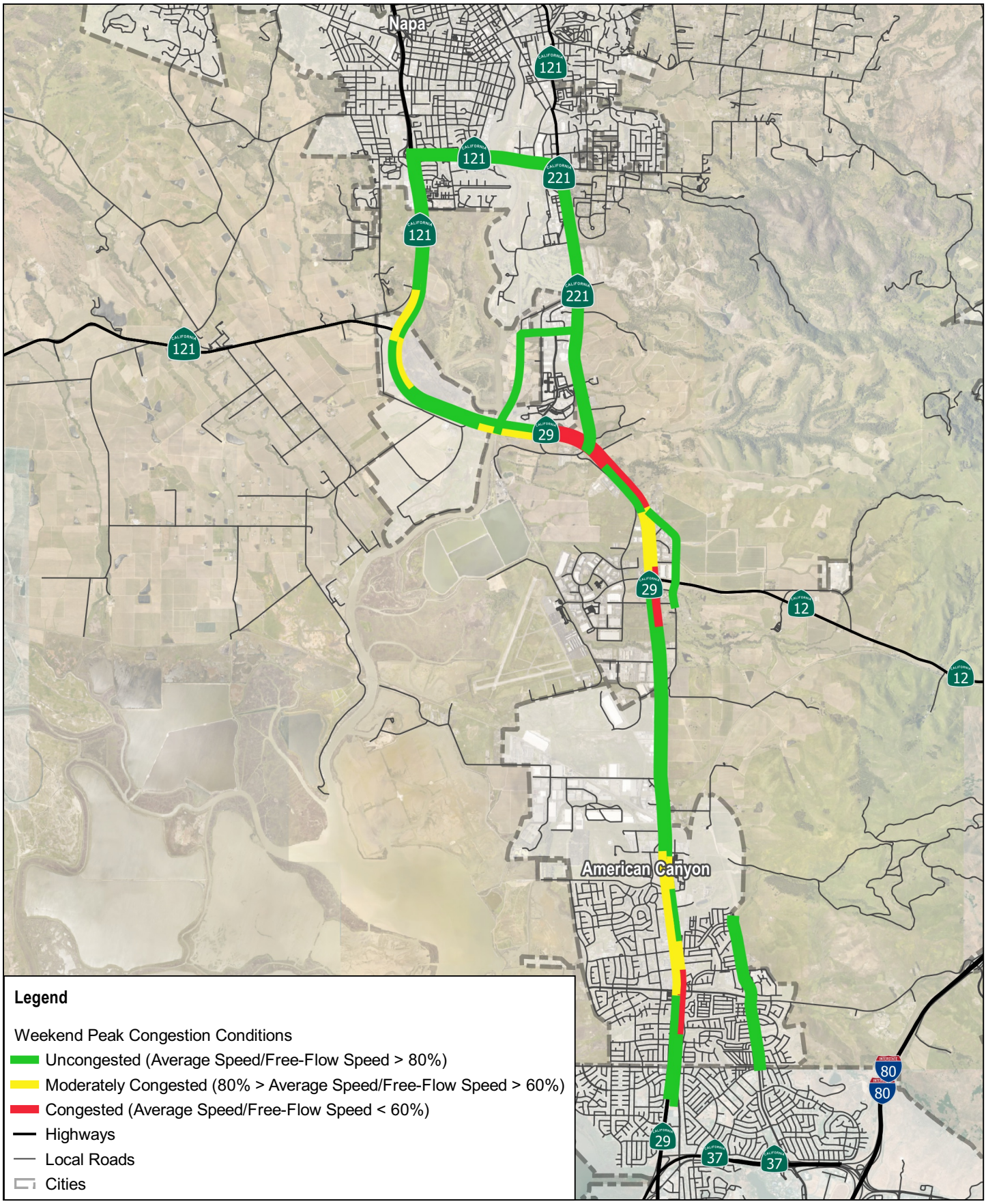
WEEKDAY CONGESTION
PM PEAK HOUR

Project No. 11187559
Revision No. 2
Date. 05/13/2020

FIGURE 11

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NAPA VALLEY TRANSPORTATION AUTHORITY
SR 29 COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

WEEKEND CONGESTION
PM PEAK HOUR

Project No. 11187559
Revision No. 2
Date. 05/13/2020

FIGURE 12

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Travel Time Reliability Analysis

NPMRDS speed data was used for baseline travel time reliability analysis. The following performance metrics for passenger vehicles were generated:

- Buffer time
- Buffer time index

Federal definitions from the National Performance Management Measures Rule were used to define reliability. Both the national rule's definition of reliability (based on 80th percentile speed) and the HCM definition of reliability (based on 95th percentile speed) were applied. Buffer Time represents the additional time a motorist needs to budget for to ensure they arrive at their destination at the expected time 95% of the time. Buffer Time Index (BTI) simply normalizes Buffer Time for distance and is expressed as a ratio or percentage (added percent of time required). A higher BTI indicates more time drivers need to budget for to drive the corridor as a typical drive time becomes less reliable. BTI equal to or greater than 0.5 indicates that a motorist will need to budget 50+ percent more time over the normal travel window (i.e., departing earlier) to ensure an on-time arrival 95 percent of the time (i.e., equates to allowing for one late arrival for every 30 trips). Table 6 displays the Buffer Time Index thresholds as they relate to reliability.

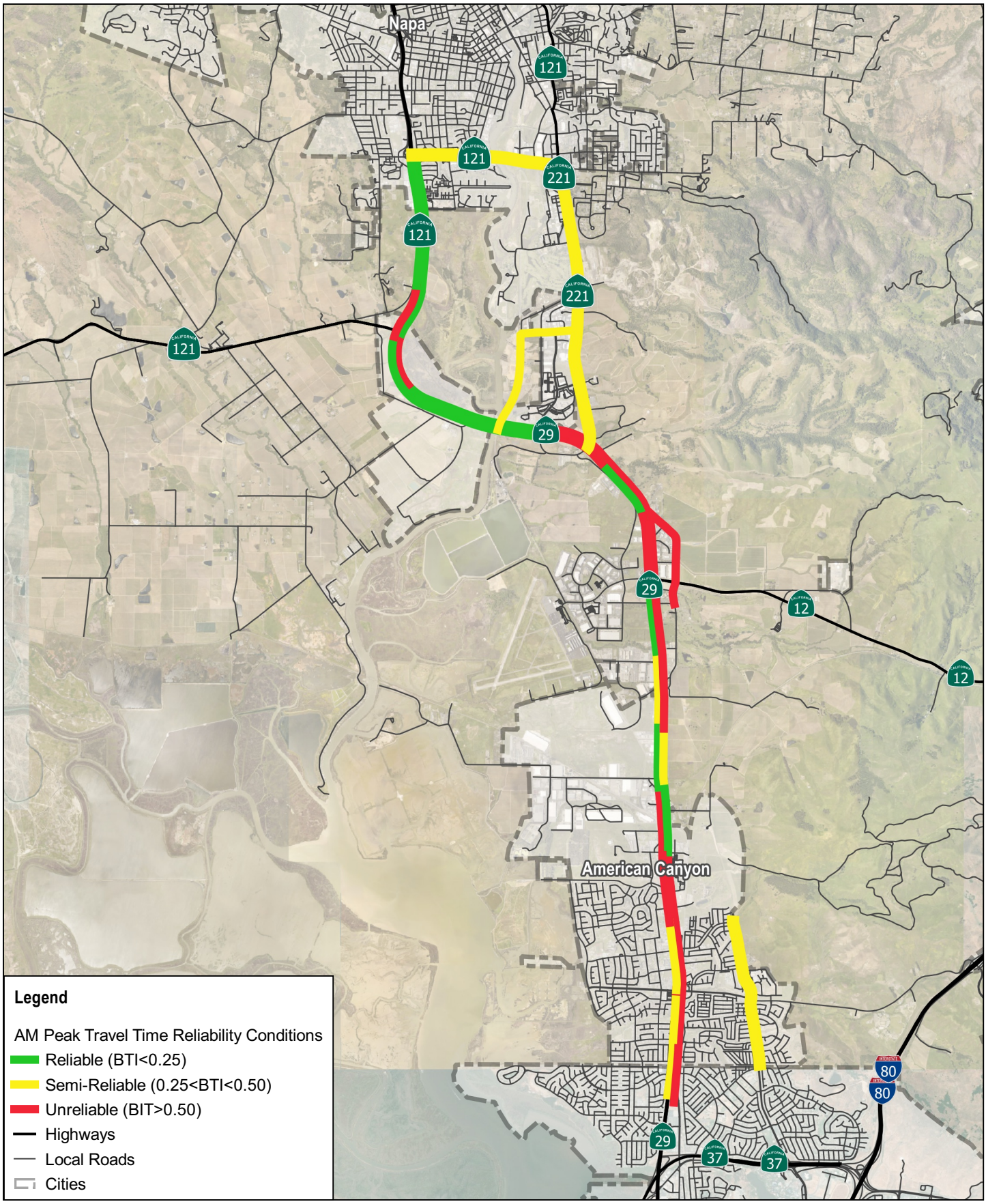
Table 6: Buffer Time Index Thresholds

Reliable	Moderately Reliable	Unreliable
BTI[A] < 0.25	BTI[A] 0.25 – < 0.5	BTI[A] > = 0.5

[A] Buffer Time Index – A measure of reliability, measures percentage of travel time devoted to being on time above average travel time.

Buffer time indices for weekday AM peak hour, weekday PM peak hour, and weekend PM peak hour are shown in Figure 13, Figure 14, and Figure 15 respectively. As shown, frequent service reliability issues occur predominantly during the weekday AM and PM peak commute hours and do not particularly mirror where congestion typically occurs. Although reliability issues are present during weekends – they are much more specific at the SR 29 junctures with American Canyon Road, Airport/SR 12 and Soscol Junction.

Figure 16 and Figure 17 show how motorists who use SR 29 in either direction respectively must compensate for both travel delay and buffer time. As shown, instead of a 13-minute drive to traverse 11.5 miles under non-congested conditions within the study corridor motorist must typically commit to over 30 minutes to reliably travel on SR 29 during peak hours. This also presents issues for on-time performance of transit service in the SR 29 corridor.



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Map Projection: Mercator Auxillary Sphere
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SR 29 COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

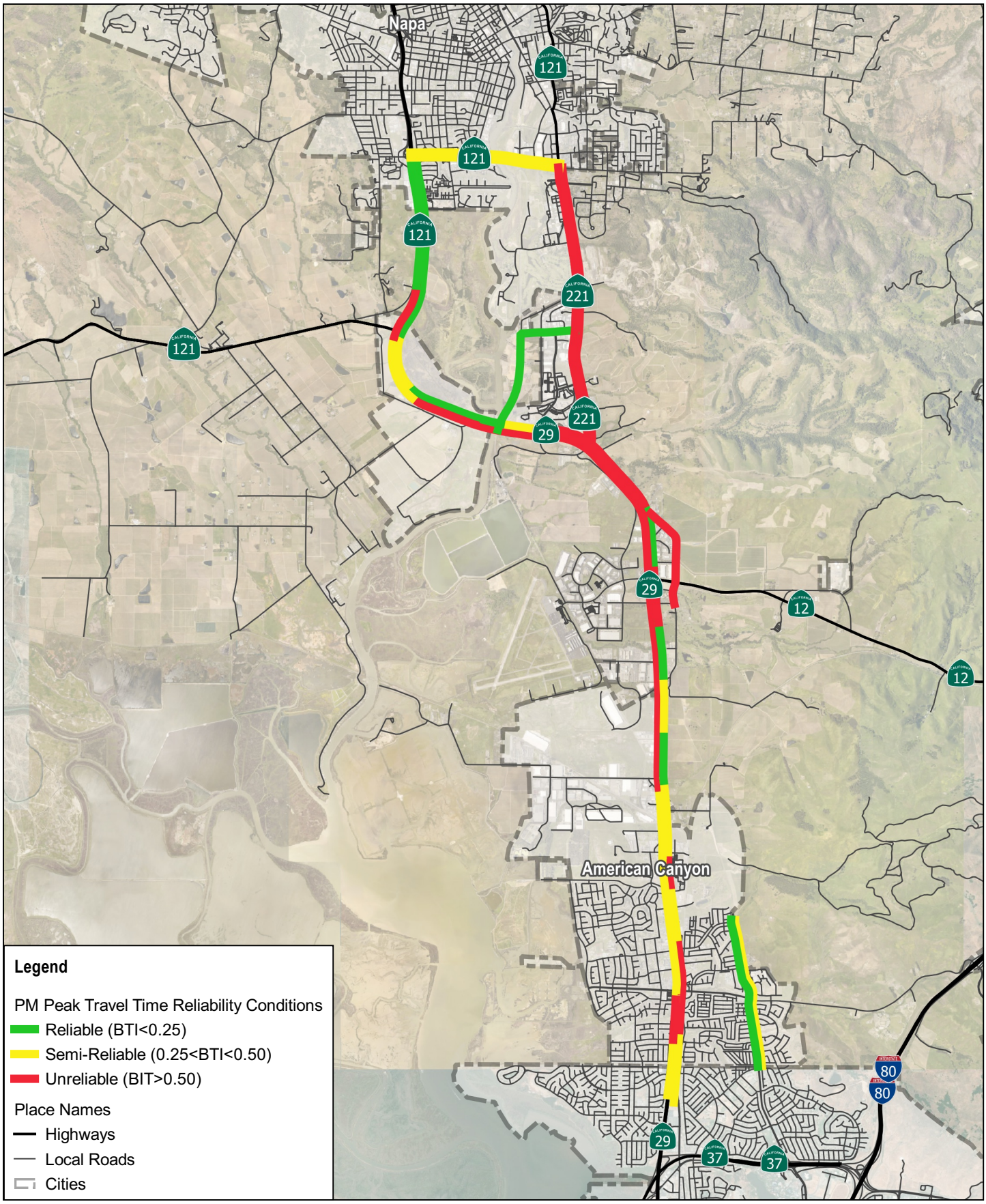
BUFFER TIME INDEX
WEEKDAY AM PEAK HOUR

Project No. 11187559
Revision No. 2
Date. 05/13/2020

FIGURE 13

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SR 29 COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

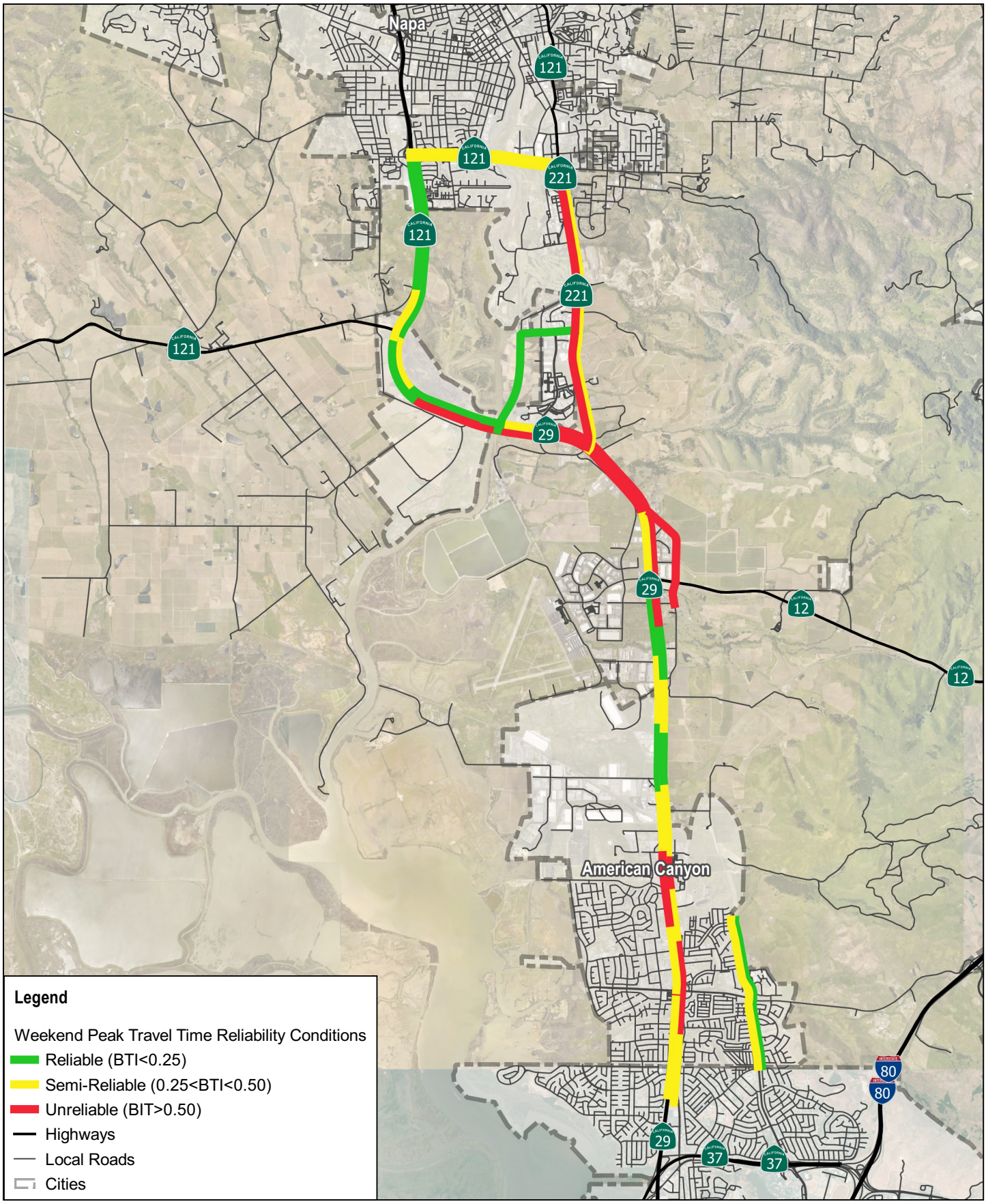
BUFFER TIME INDEX WEEKDAY PM PEAK HOUR

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FIGURE 14

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NAPA VALLEY TRANSPORTATION AUTHORITY
SR 29 COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

BUFFER TIME INDEX
WEEKEND PM PEAK HOUR

Project No. 11187559
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FIGURE 15

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Figure 16: Total Time Required for Reliably Traveling Northbound on SR 29

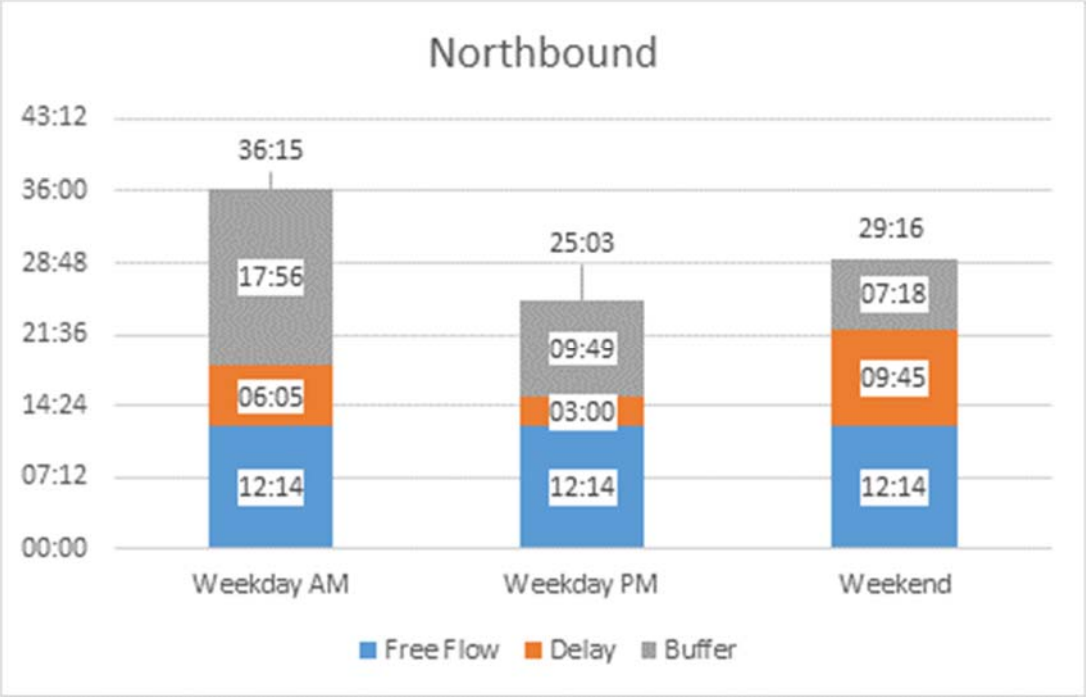
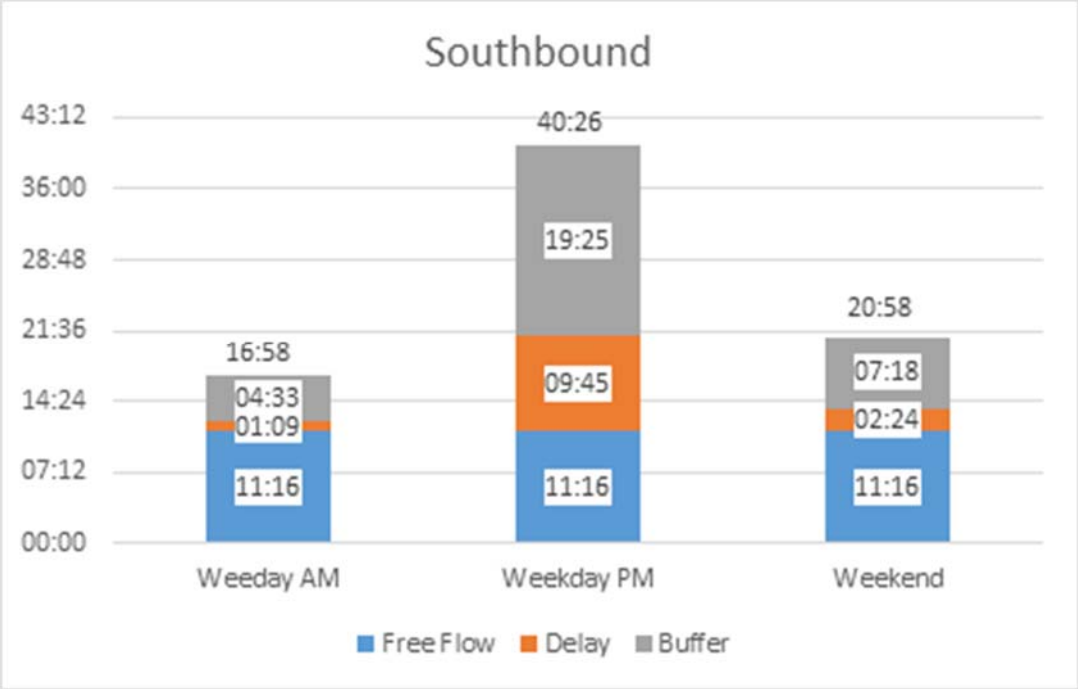


Figure 17: Total Time Required for Reliably Traveling Southbound on SR 29

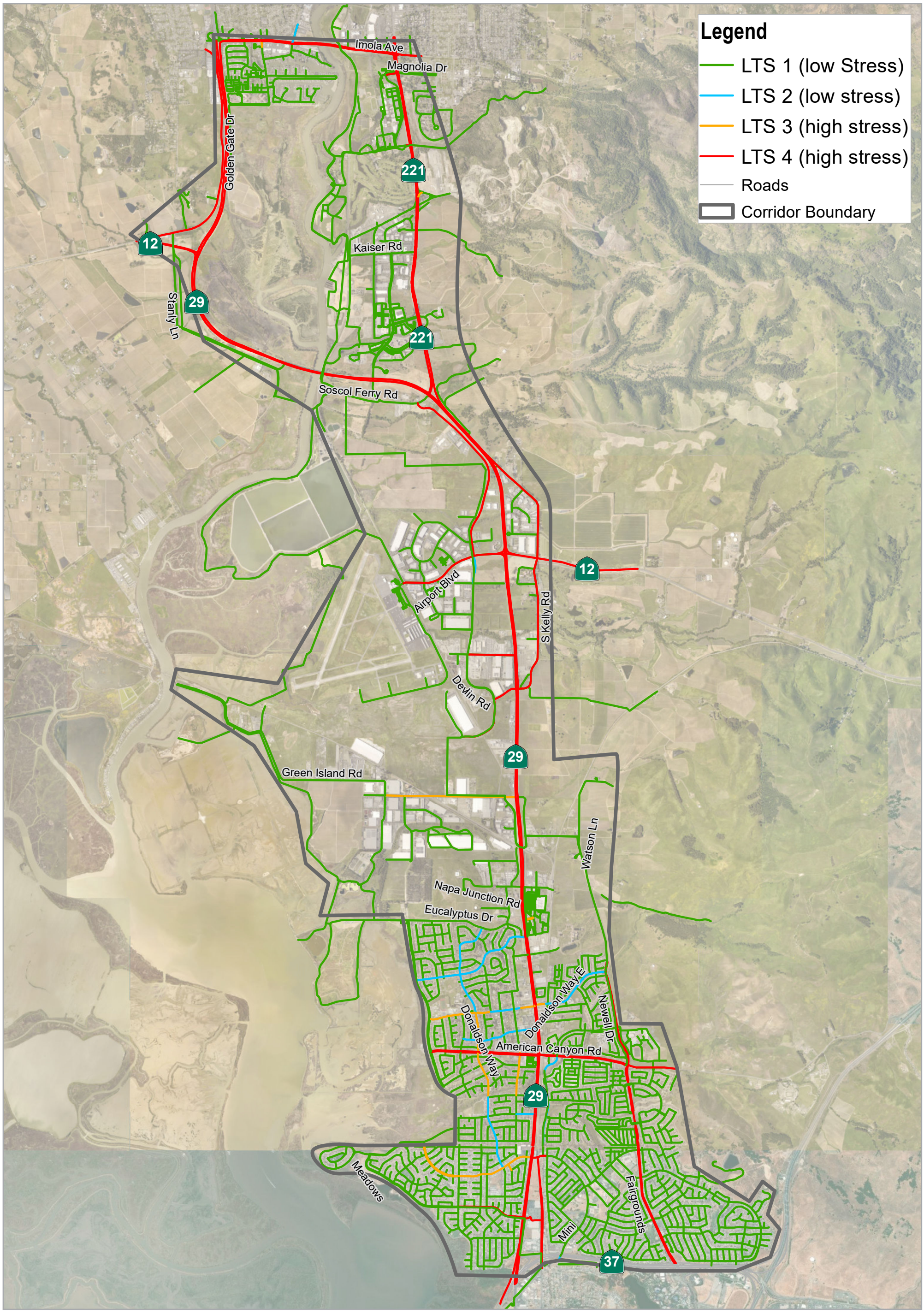


Bicycle Level of Traffic Stress

Bicycle Level of Traffic Stress (Bicycle LTS) is an objective, data-driven evaluation of the bicycling experience on various types of streets. The analysis uses roadway characteristics like posted speed limit, street width, number of travel lanes, intersection conditions, traffic controls, and the presence and character of bikeways to determine bicyclist comfort level. The results assign a score between 1 and 4, with Bicycle LTS 1 being most comfortable and least stressful. Bicycle LTS 4 is least comfortable and most stressful. Additional detail on Bicycle LTS methodology is provided in Appendix E.

Corridor segments and intersection approaches in the study area were both evaluated for LTS. An overall LTS score was determined by applying the worst score between adjacent street segments and intersection approaches. Figure 18 displays the overall existing condition LTS for the study corridor. LTS for crossings were not evaluated; however, all crossings of SR 29 are assumed to be high-stress due to the traffic volume and speed of the roadway. Most local streets provide low stress connectivity within neighborhoods; however, higher stress roadways bisect these areas throughout the study area to create pockets of low stress connectivity with high stress barriers at streets with higher functional classifications, street widths, speeds and volumes.

The main barriers to low-stress connectivity for bicyclists within the SR 29 study corridor are the high stress State Routes, including SR 29, SR 221, SR 121, and SR 12. These high-stress facilities serve to discourage access to and bicycling on SR 29 itself (north-south bicycle travel). SR 29 also bifurcates the study corridor, posing as a barrier to east-west bicycle travel. Although crossing scores were not generated as part of the SR 29 CMCP, the Caltrans District 4 Bike Plan Web Map presents Bicycle LTS crossing scores along SR 29, showing seven “LTS 4” and four “LTS 3” out of a total 13 crossings between SR 37 and Imola Avenue (SR 121). American Canyon Road, Newell Drive, Flosden Road, Fairgrounds Drive, and S. Kelly Road are additional high-stress roadways that limits local low-stress bicycling community access and limit viable on-street low-stress alternatives to SR 29.



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NAPA VALLEY TRANSPORTATION AUTHORITY
SR 29 COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

EXISTING BICYCLE LEVEL OF TRAFFIC STRESS

Project No. 11187559
Revision No. -
Date 02/27/2020

FIGURE 18

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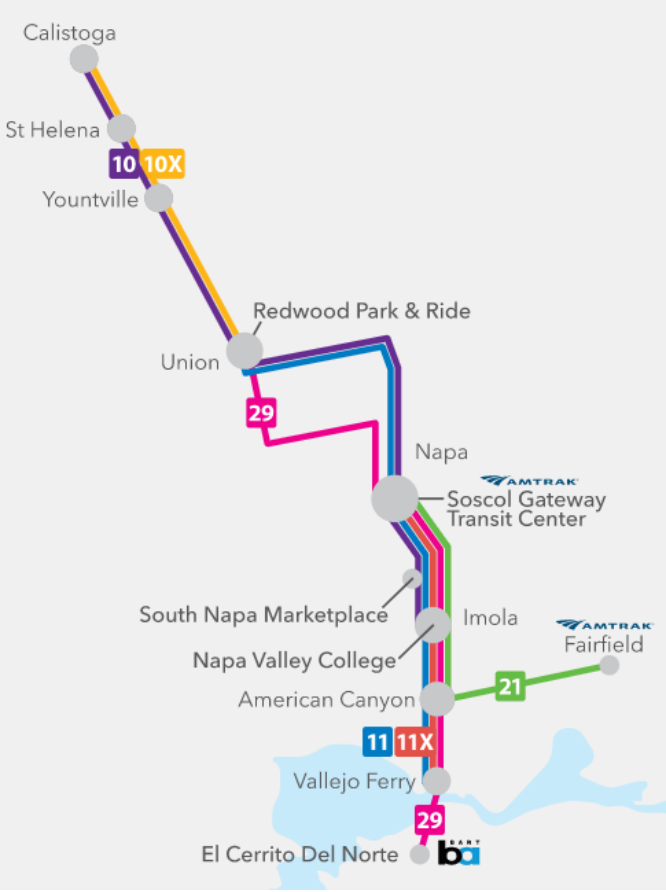
Data source: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community. Created b

Transit

Existing Service

Transit service in the Napa Valley is provided by Napa Valley Transportation Authority (NVTA)'s Vine Transit. Of the eight local routes, several serve the Imola corridor, which is at the northern end of the project study area. Several regional routes serve the study corridor directly, including Route 29, Route 21, Route 11 and Route 11X. Routes 29, 21, and 11X operate Monday through Friday, and Route 11 operates Monday through Sunday. Figure 19[2] displays the main transit lines serving the study corridor—Routes 29, 21, 11, and 11x.

Figure 19: Regional Vine Transit Routes Serving Corridor[1]



Routes 11X, 21 and 29 are express buses, serving a limited number of stops and providing access to regional destinations, and connection to the regional transit network, including Bay Area Rapid Transit (BART), San Francisco Bay Ferry, Fairfield-Suisun Transit, Rio Vista Delta Breeze, Solano County Transit, Lake Transit, Greyhound, and Amtrak/Capital Corridor.

In addition to the previously described routes operating in the study area, Vine Transit also provides American Canyon Transit service offering fixed route and on-demand, door-to-door, transit service within the City of American Canyon.

Existing Performance

Based on an analysis of existing ridership data of the express routes serving the study area, Route 29 experiences the highest ridership demand. However, traffic congestion on SR 29 causes significant service delays, varied travel times and diminished reliability. While Route 21 sees lower ridership demand than Route 29, Route 21 also experiences significant congestion on some segments of the route. Based on data presented in the *Vine Transit Express Bus Corridor Study* (2017), Routes 21 and 29 perform below Vine transit performance standards and typical express bus service standards across several performance metrics. Moreover, on-time performance and service reliability were highlighted as issues for both routes. The #1 need identified in the *Express Bus Corridor Study* was to reduce the impact of congestion on trip time and variability on Route 29.

[2] *Figure 19 Source: vinetransit.com*

Ridership Levels

65% of surveyed respondents said they very rarely or never used transit.[3] Existing Vine Transit ridership data was obtained from NVTA. Existing ridership for Routes serving the study area is summarized in Table 7. As shown, Route 29 experiences the highest ridership demand of the express buses serving the study area.

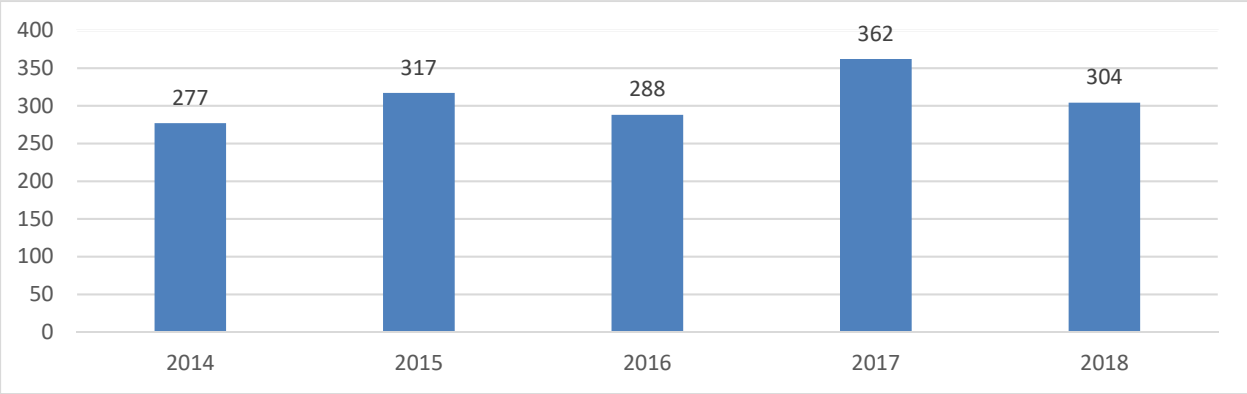
Table 7: Existing VINE Transit Ridership - Routes 29 and 11X

Existing Ridership			
Route	Peak Period		Daily
	AM	PM	
Route 11 Northbound	95	47	345
Route 11 Southbound	51	86	365
Route 11X Northbound	42	22	64
Route 11X Southbound	11	17	28
Route 29 Northbound	58	77	135
Route 29 Southbound	88	35	123
Route 21 Northbound	16	30	77
Route 21 Southbound	27	12	65

Collision Data

The primary data source for collisions was the Transportation Injury Mapping System (TIMS), which uses data from the Statewide Integrated Traffic Records System (SWITRS). TIMS records include all injury collisions, excluding property damage only (PDO) collisions. Non-PDO collisions occurring within the study area was analyzed over a five-year period for the years between 2014 and 2018. The number of non-PDO collisions occurring within the study area during this time frame is displayed in Figure 20. Table 8 displays this data by collision severity and type.

Figure 20: Non-PDO Study Area Collisions, 2014-2018



[3] *NVTA. VINE Transit Express Bus Corridor Study, 2017.*

The most common crash type among all collisions within the study area was rear end type collisions, at 55% of the total. Eight percent of all fatal and injury collisions resulted in fatal or severe injury. Fifty percent of all collisions were reported as unsafe speed being the primary violation category.

Table 8: Study Area Non-PDO Collisions, 2014-2018

Collision Category		Number of Collisions	
Collisions By Severity	Total Collisions	Count	Percent
		1548	100%
	Injury (Complaint of Pain)	1102	71%
	Injury (Other Visible)	323	21%
	Injury (Severe)	109	7%
	Fatality	14	1%
	Total Fatal/Severe Injuries(FSI)	123	8%
Collisions By Type	Broadside	252	16%
	Head-On	48	3%
	Hit Object	187	12%
	Not Stated	4	0%
	Other	23	1%
	Overturned	49	3%
	Rear End	846	55%
	Sideswipe	93	6%
	Vehicle/Pedestrian	46	3%

Table 9 displays collisions by severity and type that occurred on state routes within the study area. Because the majority, or 75 %, of the total collisions occurred on state routes, the results are similar to the total study area collision counts reported in Table 8.

Table 9: Study Area Non-PDO Collisions on State Routes, 2014-2018

Collision Category		Number of Collisions	
Collisions By Severity	Total Collisions	Count	Percent
		1173	100%
	Injury (Complaint of Pain)	856	71%
	Injury (Other Visible)	222	21%
	Injury (Severe)	82	7%
	Fatality	13	1%
	Total Fatal/Severe Injuries(FSI)	95	8%
Collisions By Type	Broadside	115	16%
	Head-On	23	3%
	Hit Object	141	12%
	Not Stated	4	0%
	Other	13	1%
	Overturned	36	3%
	Rear End	758	55%
	Sideswipe	67	6%
	Vehicle/Pedestrian	16	3%

Bicycle and Pedestrian Collisions

Table 10 displays the bicycle collisions and Table 11 displays the pedestrian collisions that occurred within the corridor between 2014 and 2018. Figure 21 presents a map of pedestrian collisions and Figure 22 presents a map of bicycle collisions during this five-year time period.

Bicycle Collisions

The most common crash type among bicycle-related collisions were broadside collisions with 41% percent of bicycle collisions reported as this type. Thirty-five percent were reported as "Other."

Table 10: Bicycle Collisions, 2014-2018

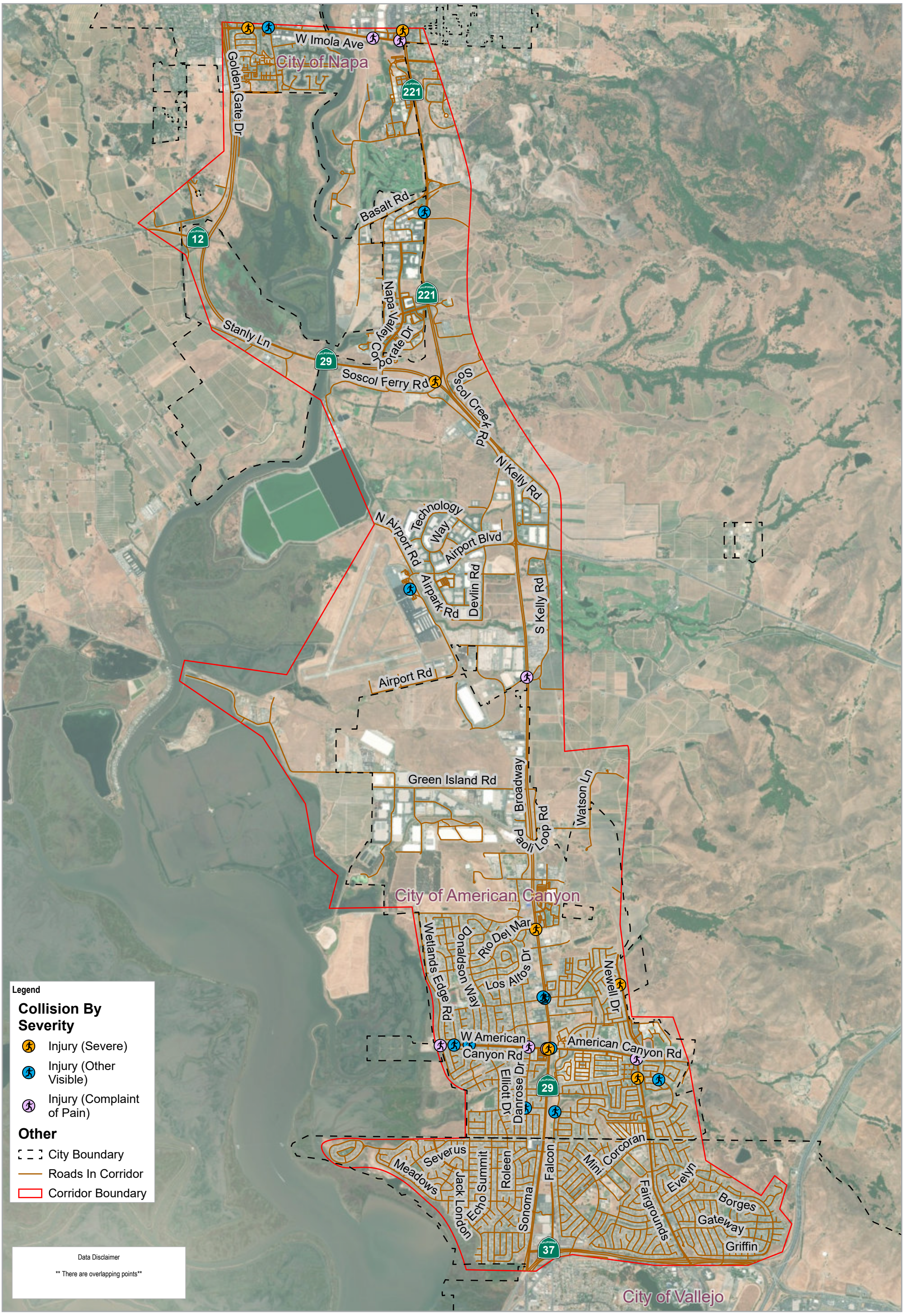
Collision Category		Number of Collisions	
Collisions By Severity	Total Collisions	Count	Percent
		34	100%
	Injury (Complaint of Pain)	17	50%
	Injury (Other Visible)	14	41%
	Injury (Severe)	1	3%
	Fatality	2	6%
	Total Fatal/Severe Injuries (FSI)	3	9%
Collisions By Type	Broadside	14	41%
	Head-On	1	3%
	Hit Object	0	0%
	Not Stated	0	0%
	Other	12	35%
	Overturned	2	6%
	Rear End	2	6%
	Sideswipe	2	6%
	Vehicle/Pedestrian	1	3%

Pedestrian Collisions

Twenty-seven percent of pedestrian collisions resulted in fatal and severe injury. Forty-three percent of pedestrian-related collisions occurred when the pedestrian was crossing in a crosswalk at an intersection.

Table 11: Pedestrian Collisions, 2014-2018

Collision Category		Number of Collisions	
Collision by Severity	Total Collisions	Count	Percent
		51	100%
	Injury (Complaint of Pain)	20	39%
	Injury (Other Visible)	17	33%
	Injury (Severe)	11	22%
	Fatality	3	6%
	Total Fatal/Severe Injuries(FSI)	14	27%
Pedestrian Action	Crossing in Crosswalk at Intersection	22	43%
	Crossing in Crosswalk Not at Intersection	1	2%
	Crossing Not in Crosswalk	12	24%
	In Road, Including Shoulder	12	24%
	Not in Road	2	4%
	Not Stated	2	4%



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Map Projection: Lambert Conformal Conic
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SR 29 COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

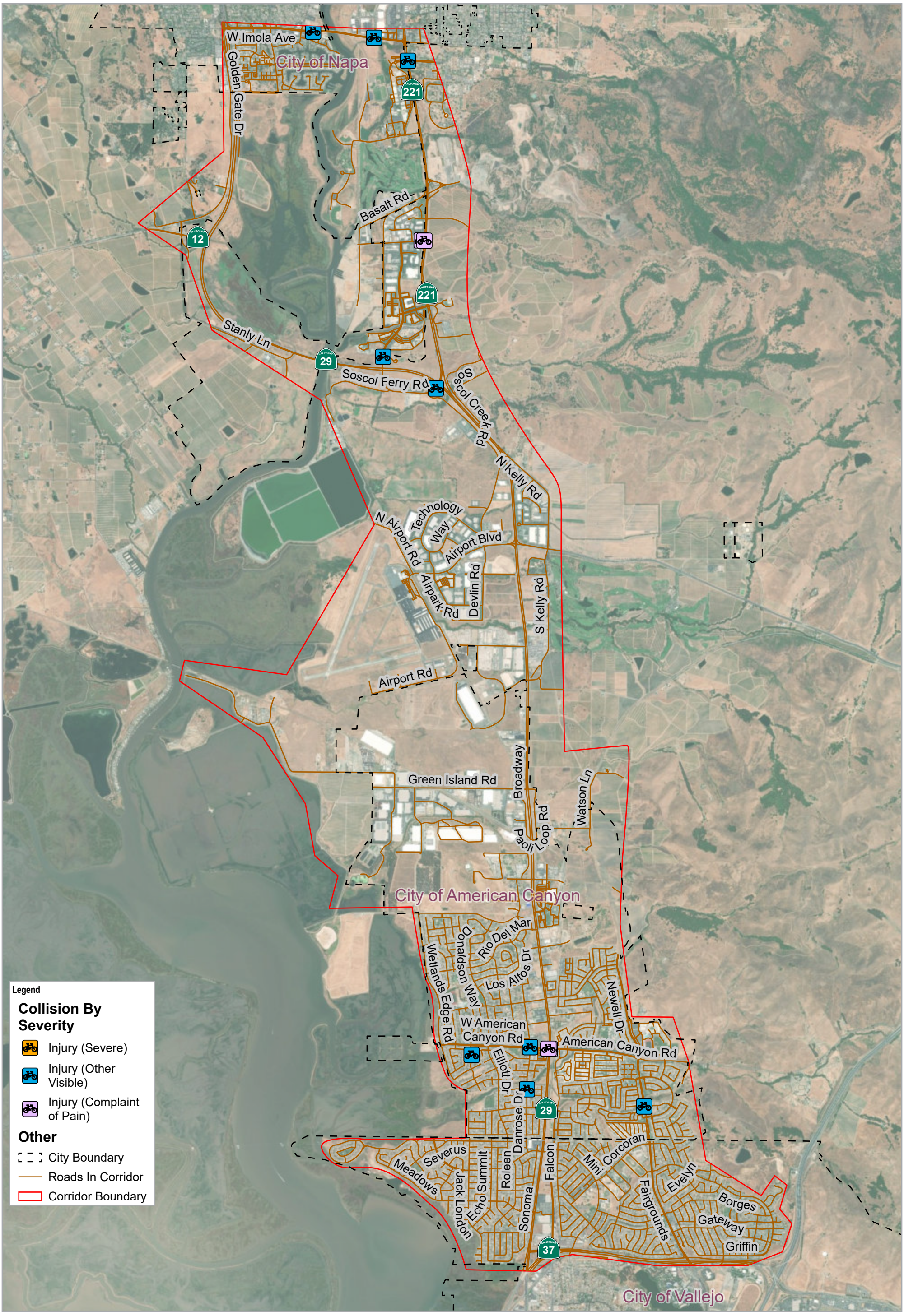
PEDESTRIAN COLLISIONS
2014 to 2018 (SWITRS / TIMS)

Project No. 11187559
Revision No. -
Date 7/11/2019

FIGURE 21

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NAPA VALLEY TRANSPORTATION AUTHORITY
SR 29 COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

BICYCLE COLLISIONS
2014 to 2018 (SWITRS / TIMS)

Project No. 11187559
Revision No. -
Date 7/11/2019

FIGURE 22

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Print date: 11 Jul 2019 - 08:52

Data source: World Imagery: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community. Created b

5 - Corridor Solutions

This chapter presents potential solutions examined for the SR 29 corridor. These solutions were identified in the preceding 2014 SR 29 Gateway Corridor Improvement Plan, other relevant programming and planning documents, and during the course of preparing the SR 29 CMCP, including the public outreach process and the needs analysis documented in the Existing Conditions chapter of this report.

As outlined below, seven (7) categories of potential improvements have been identified. Within each of these categories, 24 separate and distinct improvements and/or services are described. Each of these improvements within these 7 categories were individually costed and prioritized for future grant funding and implementation. The categories and improvements are outlined below:

Parallel Capacity Improvements

- Devlin Road
- South Kelly Road/Newell Drive

SR 29 Multimodal Improvements

- SR 37 to Napa Junction Road
- Napa Junction Road to Paoli Loop Road
- South Kelly Road to Soscol Junction

Intersection Improvements

- Carneros Junction
- Airport Boulevard/SR 12/SR 29
- Soscol Junction
- Grade-Separated Pedestrian Crossings

Shared Use Paths

- Napa Valley Vine Trail
- San Francisco Bay Trail

SMART Train Extensions

- American Canyon to Vallejo Ferry Terminal
- Novato to Suisun City

Bus Improvements

- Bus Stop Changes
- Part Time Use of Shoulder
- 11X Bus Service
- New Route 29 Bus Service
- Queue Jump
- Transit Signal Priority
- NVTA Maintenance Facility/ Transportation Management Center

Integrated Corridor Management

- Variable Message Signs
- Traffic Monitoring Detectors
- Adaptive Signal Control
- Trailblazer Signs
- CCTV Cameras

Online Response Summary

These potential solutions were presented to the community at outreach events and on-line mapping tool. The mapping tool presented graphical renditions of each of the candidate corridor improvements and allowed the community to comment on the various options. A summary of this targeted outreach is provided below in Table 12

Table 12: Public Outreach Concept Preference Polling Results

Concept	Yes Support	Don't Support	Not Sure
Parallel Capacity: Devlin	7	-	-
Parallel Capacity: South Kelly/Newell Drive	7	-	1
Multimodal Improvements: SR 37 to Napa Junction	2	-	1
Multimodal Improvements: Napa Junction to Paoli Loop Road	3	-	-
Multimodal Improvements: South Kelly Road to Soscol Junction	3	-	1
Intersection Improvements: Carneros – SR 29/SR 12/SR 121	2	1	-
Intersection Improvements: SR 29/SR 12/Airport Boulevard	2	1	1
Intersection Improvements : Soscol Junction	4	1	-
Grade-Separated Pedestrian Crossings	17	1	1
Vine Trail Alignment Improvement	6	-	-
Bay Trail Alignment	6	1	-
SMART Extension: American Canyon to Vallejo Ferry Terminal	5	-	1
SMART Extension: Novato to Suisun City	4	-	2
Bus Stop Changes	6	-	-
Bus on Shoulder	1	1	1
Route 11 Express Bus Service	4	-	-
New Route 29 Bus Service	6	1	-
Bus Queue Jump	4	3	2
Bus Transit Signal Priority	4	2	5
NVTA Maintenance Facility / Transportation Management Center	3	-	1
Integrated Corridor Management: Variable Message Sign	9	3	2
Integrated Corridor Management: Traffic Monitoring Detectors	7	1	2
Integrated Corridor Management: Trailblazer Signage	6	1	1
Integrated Corridor Management: CCTV Cameras	7	1	1

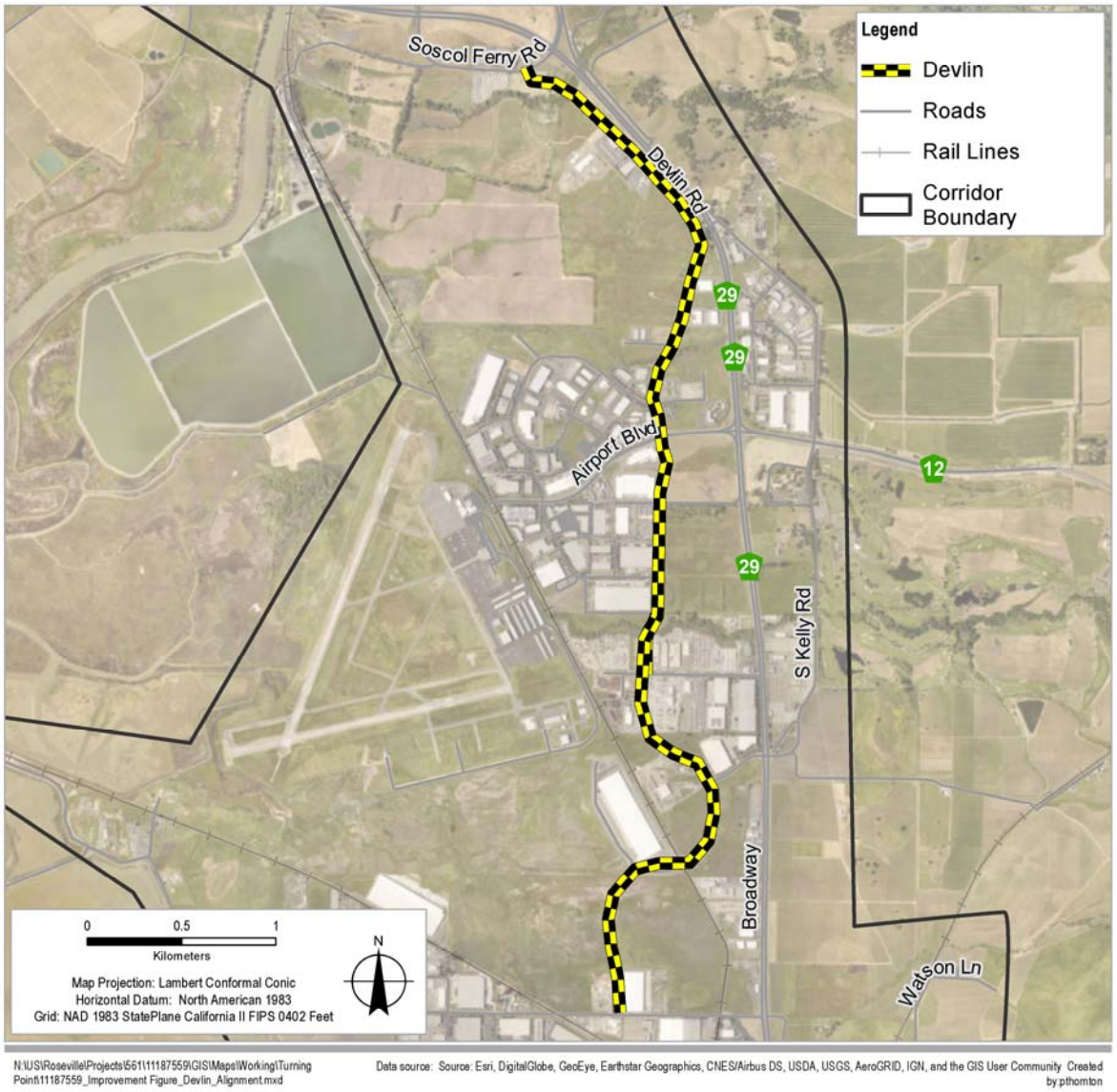
Parallel Capacity Improvements

Devlin Road Extension

The Devlin Road alignment will provide parallel road capacity to SR 29, and connectivity within the employment and industrial areas of unincorporated Napa County, in the vicinity of the airport. Most segments of this ultimate alignment have been constructed. Segment E, between Tower Road and south of Airpark Road, opened in March 2020.

Segment H, between Green Island Road and Devlin Road's current southern terminus has secured funding. Once constructed, this will complete the full Devlin Road extension alignment shown below in Figure 23.

Figure 23 Devlin Road Parallel Capacity

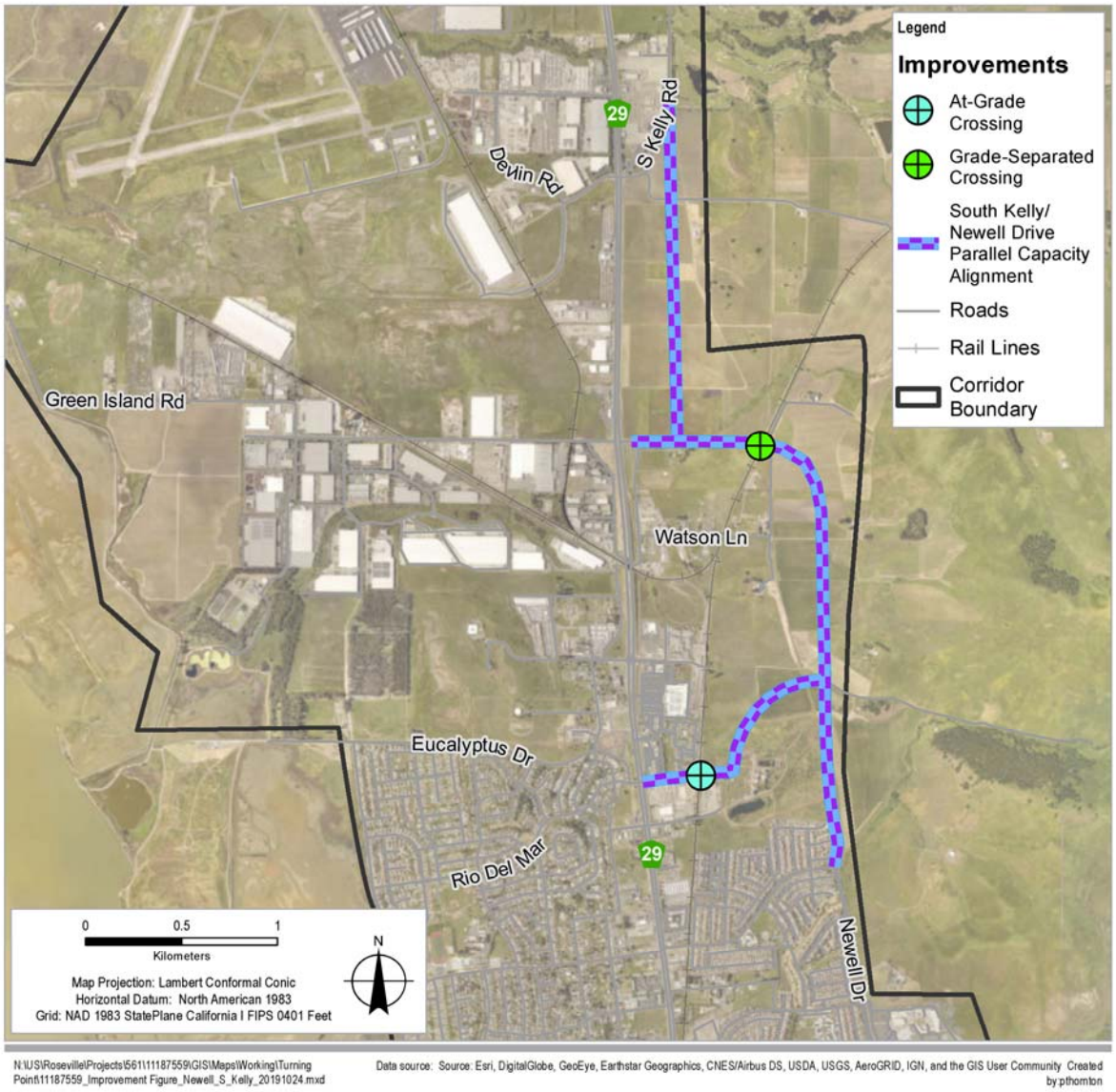


South Kelly Road/Newell Drive Extension

The South Kelly Road/Newell Drive alignment would provide parallel roadway capacity to SR 29. This improvement would include roadway extensions of Newell Drive, Rio Del Mar, and South Kelly Road. Newell Drive would be extended as a four-lane roadway from Donaldson Way to Rio Del Mar, and a two-lane roadway from Rio Del Mar to Green Island Road.

Additionally, Rio Del Mar and South Kelly Road would each be extended as two-lane roadways to connect with the Newell Drive extension at the southern and northern ends, respectively. Portions of these extensions are anticipated to be constructed as part of the Watson Ranch Specific Plan, specifically the Rio Del Mar extension and a portion of the Newell Drive extension. The complimentary roadway extensions are shown below in Figure 24.

Figure 24 South Kelly Road/Newell Drive Parallel Capacity



SR 29 Multimodal Improvements

Recognizing the character of the SR 29 corridor changes as the adjacent land uses and access needs change, three (3) distinct segments of SR 29 became apparent for which different cross-sections of improvements were developed. An overview of this segmentation is presented in Figure 25. The segmentation of SR 29 is as follows:

- SR 37 to Napa Junction Road
- Napa Junction Road to Paoli Loop Road
- South Kelly Road to Soscol Junction

For each of these segments, the key elements of the proposed improvements to meet the multimodal needs of the segment are highlighted in the following sections.

SR 37 to Napa Junction Road

This solution would provide multimodal improvements on SR 29 between SR 37 and Napa Junction Road. Improvements would maintain the existing four-lane roadway and add off-corridor Class I shared use paths on both sides of the roadway, 8 foot shoulders, pedestrian refuge islands at intersections, and landscaped planting strips to separate the Class I paths from vehicle traffic. A path exists from Eucalyptus Road to Napa Junction Road. The proposed improvements along SR 29 would connect to this path. Segment One improvements are depicted in Figure 26.

Napa Junction Road to Paoli Loop Road

This solution would provide multimodal improvements from Napa Junction Road to the proposed Napa Valley Vine Trail and Paoli Loop Road. Improvements would maintain the existing four-lane roadway and include new and existing Class I shared use paths for bicycling and walking completely separated from and parallel to SR 29.

There is an existing Class I shared use path east of SR 29 from Eucalyptus Drive to Napa Junction Road, which would be extended to Paoli Loop Road. This path would connect to the proposed Napa Valley Vine Trail alignment at Paoli Loop Road with an at-grade bicycle and pedestrian railroad crossing south of Paoli Loop Road. This would provide access to the proposed Napa Valley Vine Trail alignment along Paoli Loop Road and Green Island Road, which extends north to the west of SR 29.[4] Segment Two improvements are depicted in Figure 27.

Napa Junction Road to Soscol Junction

This solution would provide multimodal improvements from Napa Junction Road to Soscol Junction (SR 221). Improvements would provide buffered bike lanes on SR 29 from Napa Junction Road to Soscol Junction, and improve intersections like South Kelly Road, Green Island Road, and North Kelly Road to provide safer bicycle and pedestrian crossing. These facilities would provide a bicycle connection to existing Napa Valley Vine Trail and San Francisco Bay Trail segments east of Soscol Junction via SR 29. If feasible, additional bikeway separation from SR 29 (Class I or IV) may be pursued to enhance bicyclist comfort and safety. Segment three improvements are depicted in Figure 28.

[4] The Vine Trail Coalition is studying trail alignments options along Paoli Loop. A preferred route is not yet identified.

Figure 25: SR 29 Multimodal Improvements Segment Overview

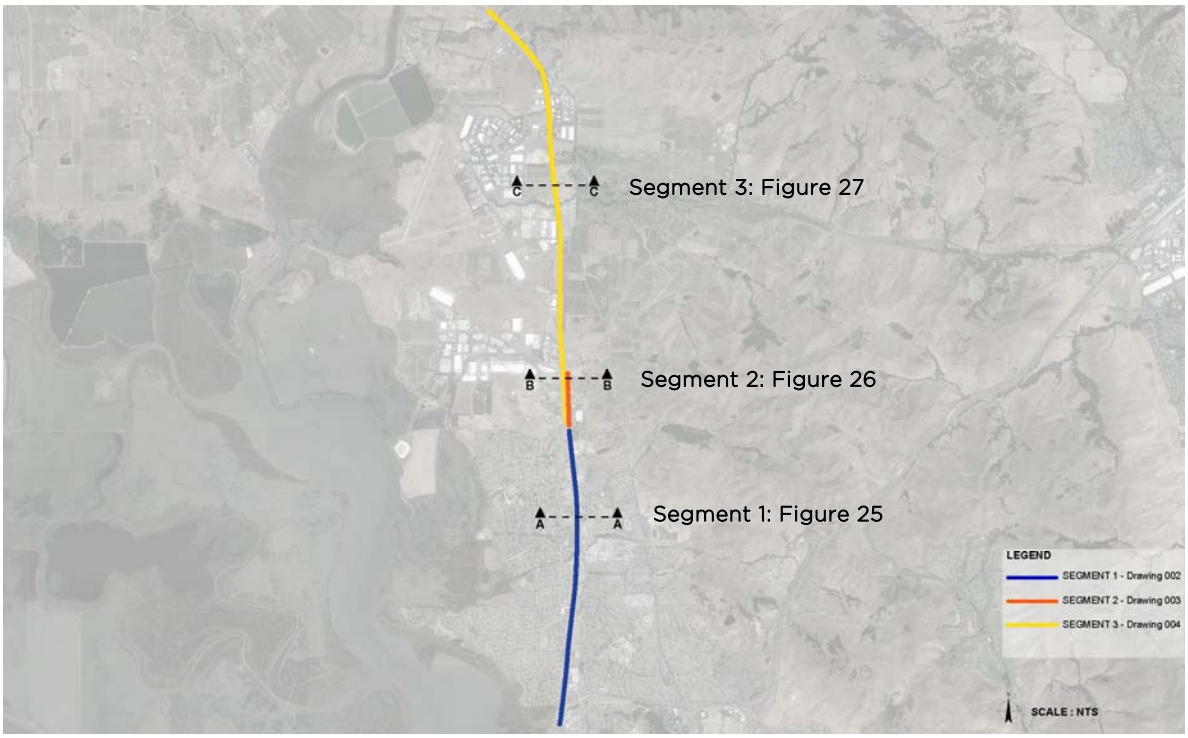


Figure 26: SR 29 Multimodal Improvements Segment One



Figure 27: SR 29 Multimodal Improvements Segment Two

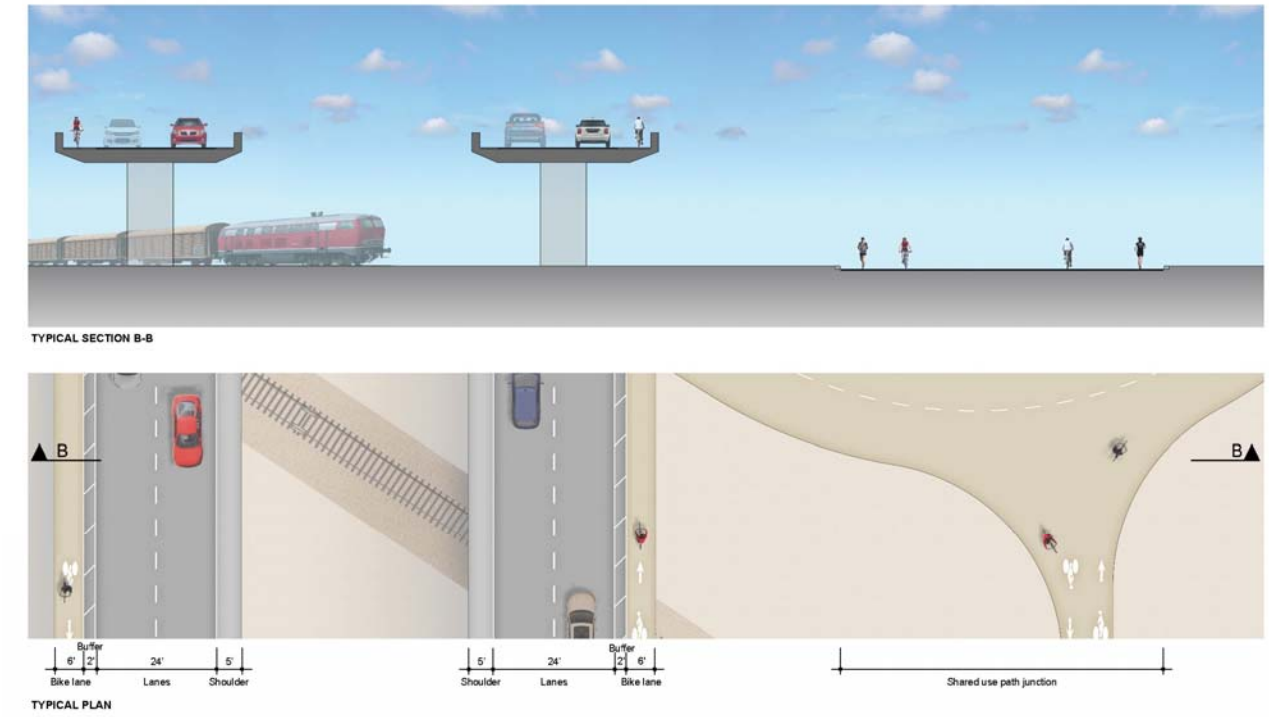
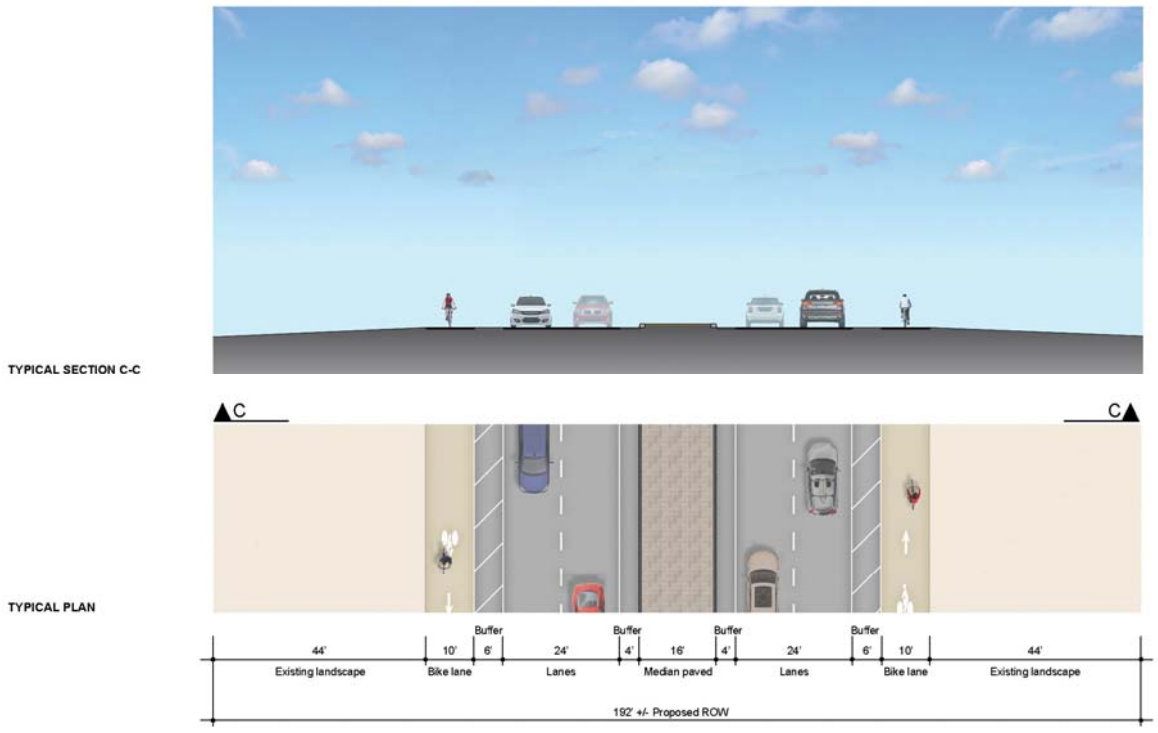


Figure 28: SR 29 Multimodal Improvements Segment Three

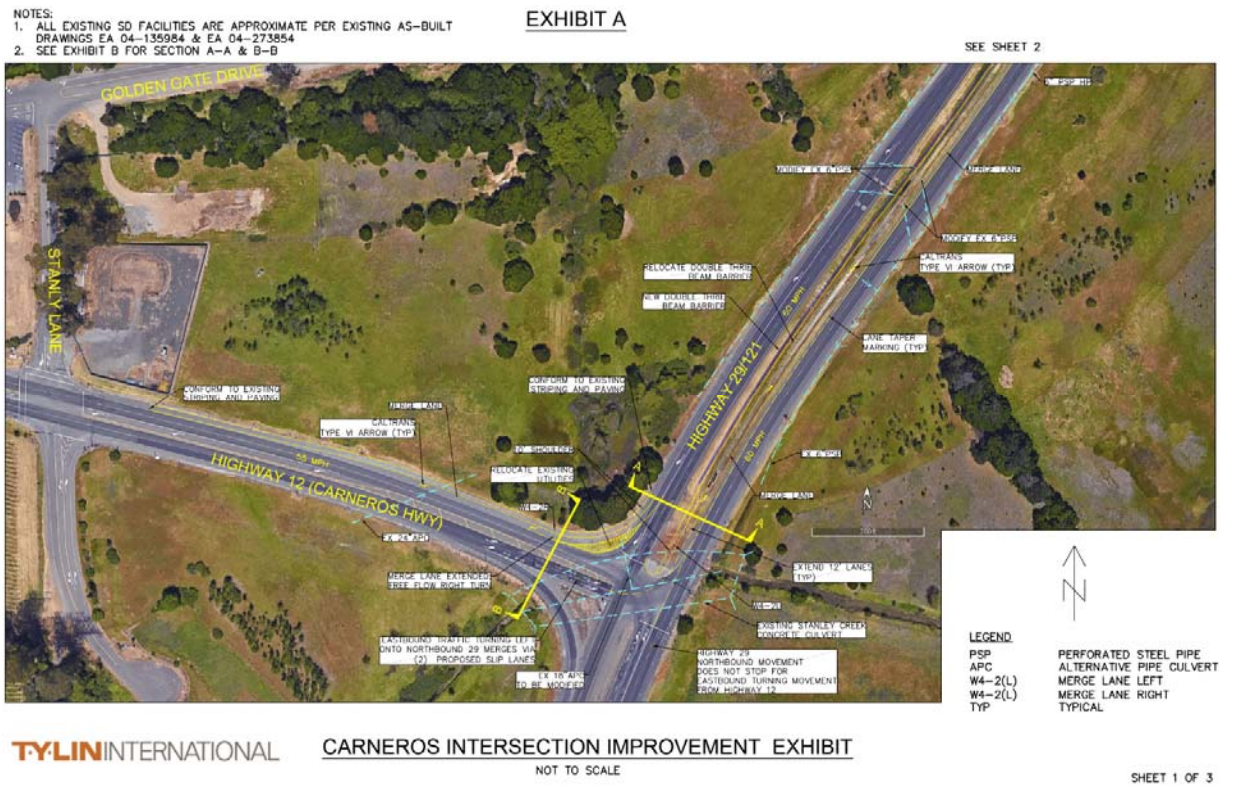


Intersection Improvements

Carneros Junction

This solution would improve the existing signalized intersection at Carneros Junction, where SR 29 intersects with SR 12/SR 121. Carneros Junction intersection Improvements are depicted in Figure 29.

Figure 29: Carneros Junction Intersection Improvements



Improvements would include:

- Converting the signal-controlled northbound through movement on SR 29 to a free no-stop through movement
- Constructing a dedicated unsignalized right turn lane from southbound SR 29 to westbound SR 12, including a merge lane on SR 12 that extends approximately 1,000 feet
- Constructing two receiving slip lanes in the existing SR 29 median for left turns from westbound SR 12 to northbound SR 29, extending approximately 3,100 feet

Airport Boulevard/SR 12/SR 29

Two alternatives were proposed for improvements at the intersection of SR 29 and SR 12/Airport Boulevard. The current configurations at the three study intersections (Airport Blvd & Devlin Road, SR 29 & Airport Blvd/SR 12, SR 12 & N/S Kelly Rd) are all signal configuration.

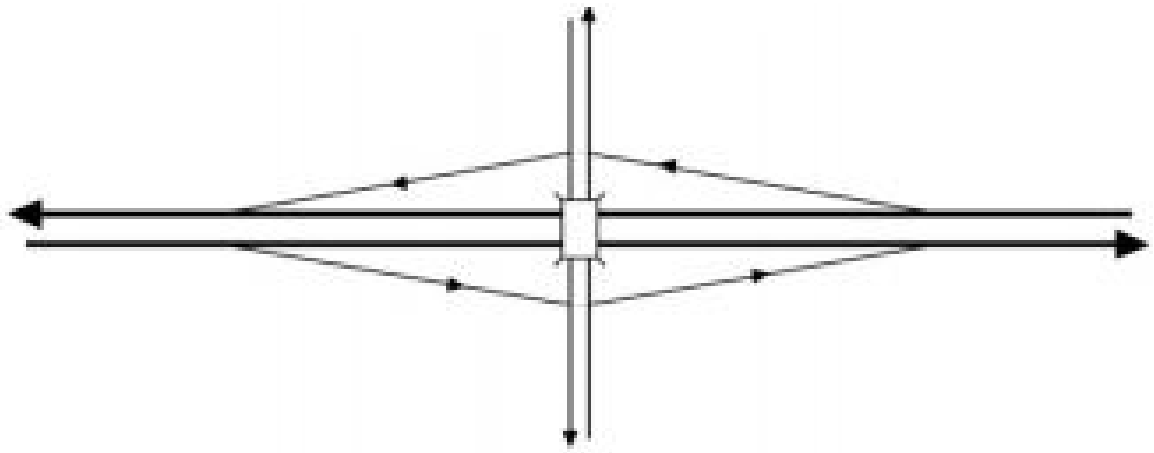
Alternative 1 would be a tight diamond interchange. With this alternative, SR 29 would be on a grade-separated overcrossing structure, and SR 12/Airport Boulevard would cross underneath it. This is depicted in Figure 30. Alternative 1 is proposed to include signalized ramp termini.

Alternative 2 would include an interchange, with SR 12/Airport Boulevard crossing either over or under SR 29 with roundabouts also proposed at Airport Boulevard & Devlin Road, and SR 29 & North/South Kelly Road. These improvements are depicted in Figure 31. Relative to Alternative 1, Alternative 2 provides improved operational benefit at a lower construction cost.

Alternative 2 proposes a single lane roundabout at Airport Boulevard & Devlin road with an adjacent reduction in approach lanes from each direction. The intersection of SR 12 & North/South Kelly Road would become a hybrid roundabout (4 lane roadway east/west and 2 lane roadway north/south).

The intersection of SR 29 & Airport Blvd/SR 12 would be transformed from an at-grade signalized intersection into a grade-separate roundabout interchange. It is still to be determined if SR 29 would be improved to either an overcrossing structure or depressed (sunk into the ground) design. The Airport Boulevard / SR 12 roadway would become a double roundabout “dogbone” with a single westbound lane and two eastbound lanes.

Figure 30: Airport Boulevard/SR 12/SR 29 Alternative 1



Source: Caltrans Highway Design Manual

Figure 31: Airport Boulevard/SR 12/ SR 29 Alternative 2



Soscol Junction

The proposed improvement at Soscol Junction (SR 29/SR 221/Soscol Ferry Road) includes construction of two roundabouts and a grade-separated overcrossing structure for SR 29. Soscol Ferry Road would cross beneath SR 29, and shared use paths would be provided to connect to future alignments in the vicinity. The improvement is displayed in Figure 32 and Figure 33.

Figure 32: Soscol Junction Intersection Improvement – Overhead View



Figure 33: Soscol Junction Intersection Improvement – Perspective View



Shared Use Paths

Napa Valley Vine Trail

This proposed path would offer a dedicated space for people walking and bicycling parallel to SR 29 and completely separated from vehicle traffic. The overall Vine Trail project envisions 47 miles of trail system connecting the entire Napa Valley, from the City of Vallejo in Solano County to the City of Calistoga in Napa County. The current Vine Trail stretches about 12.5 miles, from Kennedy Park, along SR 221 at the northern end of the SR 29 CMCP study area, to the Town of Yountville. Several segments of the trail are in various stages of design or construction. Some segments of the trail system currently fall short of Class I standards, for example the current Class II bike lanes on Devlin Road in American Canyon.

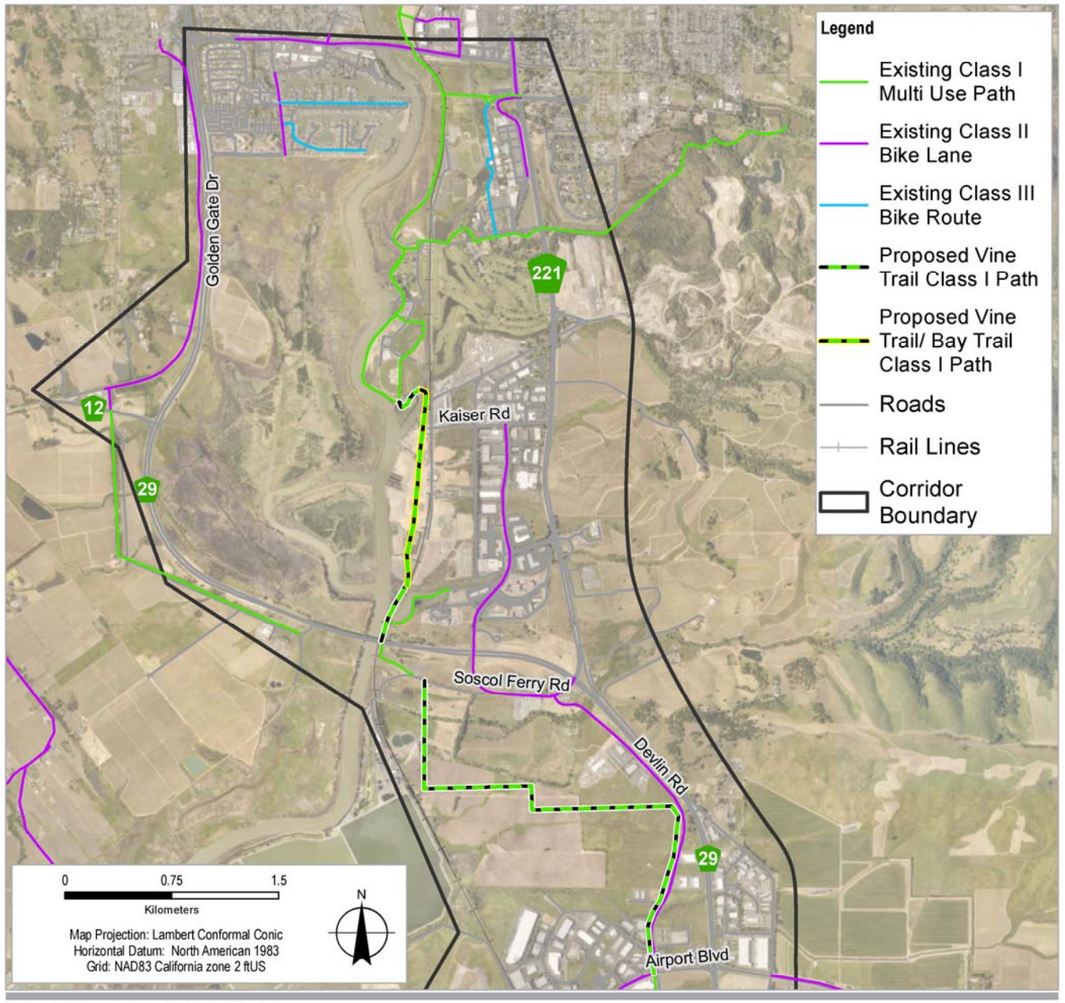
The proposed improvements included in the SR 29 CMCP include gap closures between discontinuous segments of the Vine Trail, in particular, from Kennedy Park in the City of Napa, through Soscol Junction, to Newell Drive in the City of American Canyon. From Newell Drive, the trail would rejoin existing portions of the Vine Trail to American Canyon Road and SR 29 (Broadway). Through the City of Vallejo, a portion of the Vine Trail along Broadway, east of SR 29, to SR 37, has received funding through the Active Transportation Program (ATP) and is in final design. Figure 34 depicts the proposed Vine Trail alignments in the northern study area. Figure 35 depicts the proposed Vine Trail alignment in the southern study area.

San Francisco Bay Trail

This proposed path would offer a dedicated space for people walking and bicycling parallel to SR 29, closer to the bay. The overall Bay Trail project envisions 500 miles of trail system throughout the San Francisco and San Pablo Bays, and throughout the member agencies of the Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC). The Bay Trail shares alignments with other trail systems, including the Napa Valley Vine Trail, in several segments. Other "sister trails" include the Bay Area Ridge Trail, Bay Area Water Trail, and the Great Delta Trail.

As with the Vine Trail, the proposed improvements included in the SR 29 CMCP include gap closures between discontinuous segments of the Bay Trail, on the western edge of the study area. In particular, alignments are proposed along the Napa River connecting the Cities of Napa and American Canyon, west of the Napa Airport to Green Island Road. Further south, the proposed alignment would connect the trail terminus along Wetlands Edge Road in the City of American Canyon, through the City of Vallejo, and to SR 37. Figure 36 depicts the proposed Bay Trail alignments in the northern study area. Figure 37 depicts the proposed Bay Trail alignment in the southern study area.

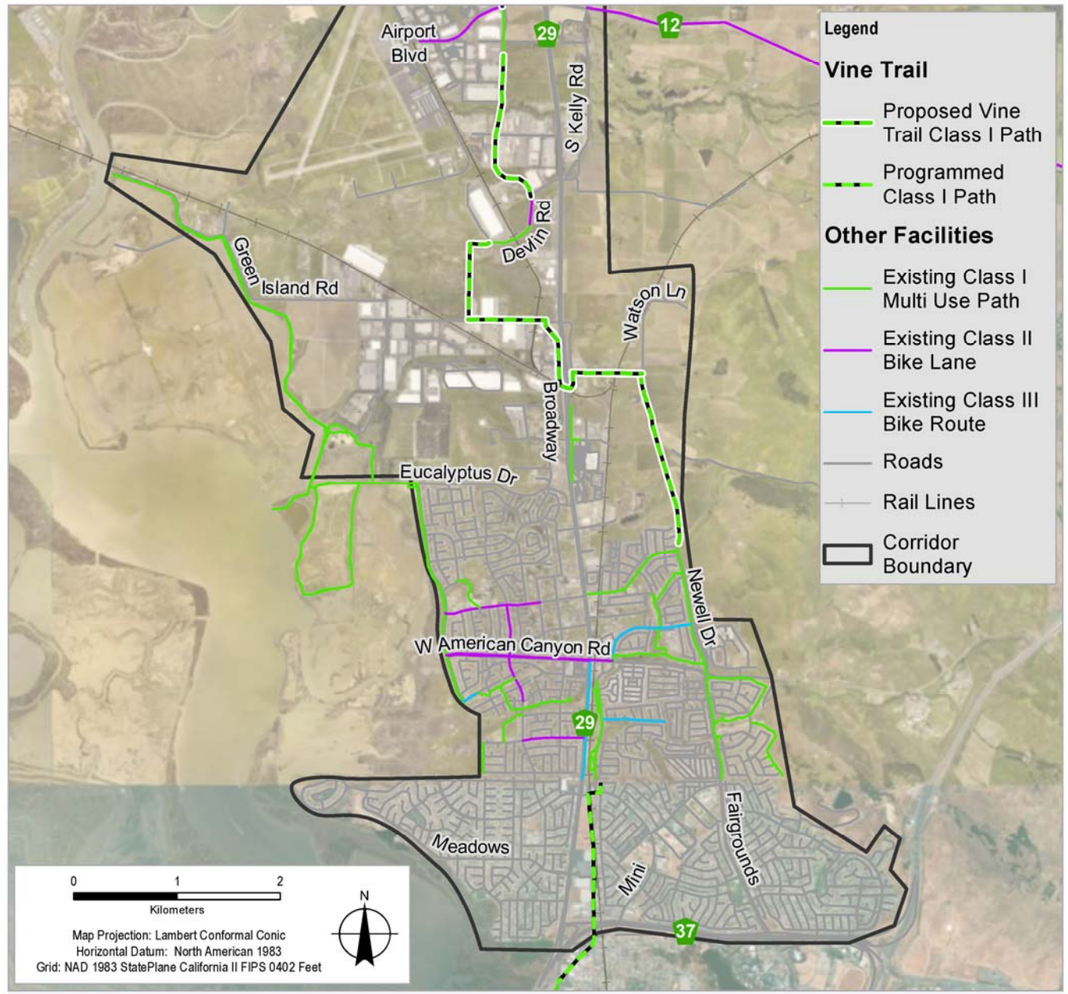
Figure 34: Proposed Vine Trail Alignment (Northern Corridor)



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Data source: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community Created by pthornton

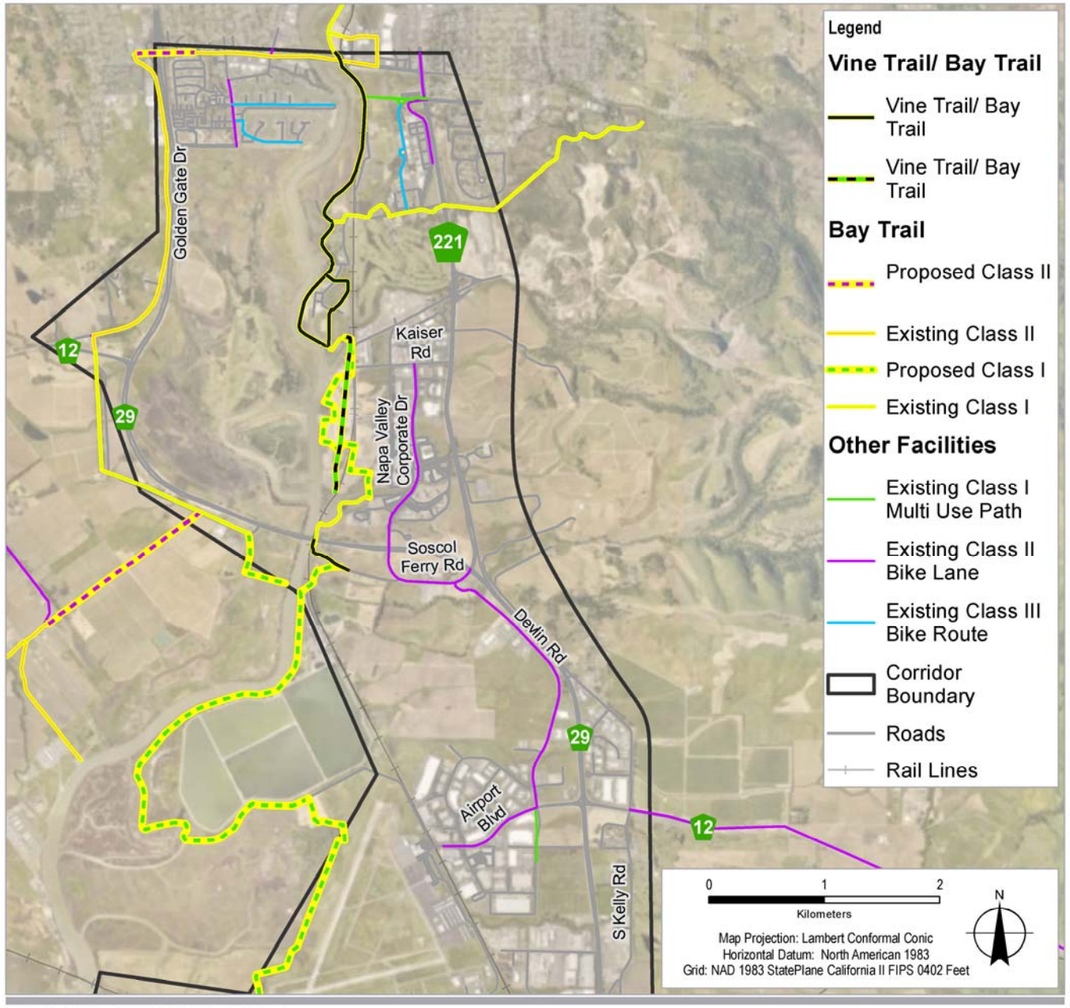
Figure 35: Proposed Vine Trail Alignment (Southern Corridor)



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Data source: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community Created by pthornton

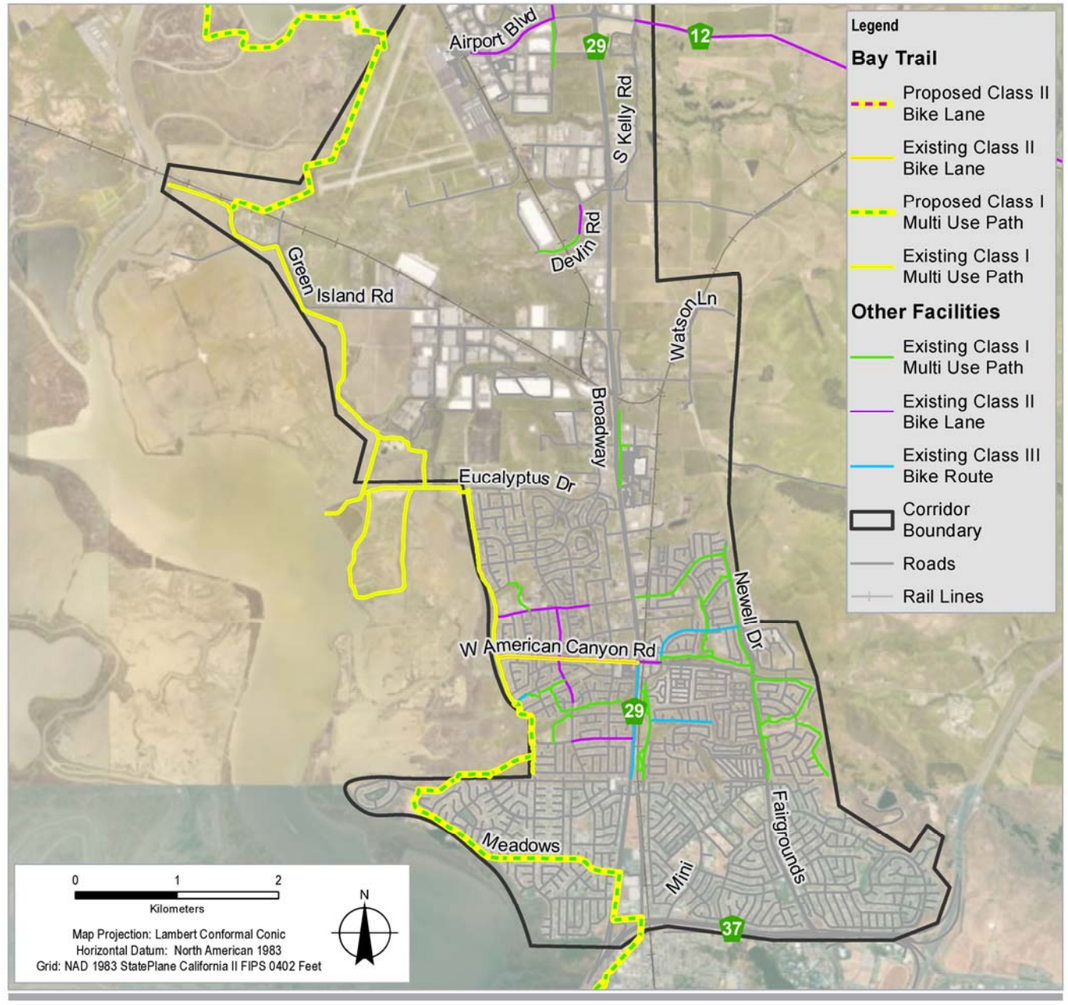
Figure 36: Proposed Bay Trail Alignment (Northern Corridor)



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Data source: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community Created by:pthornton

Figure 37: Proposed Bay Trail Alignment (Southern Corridor)



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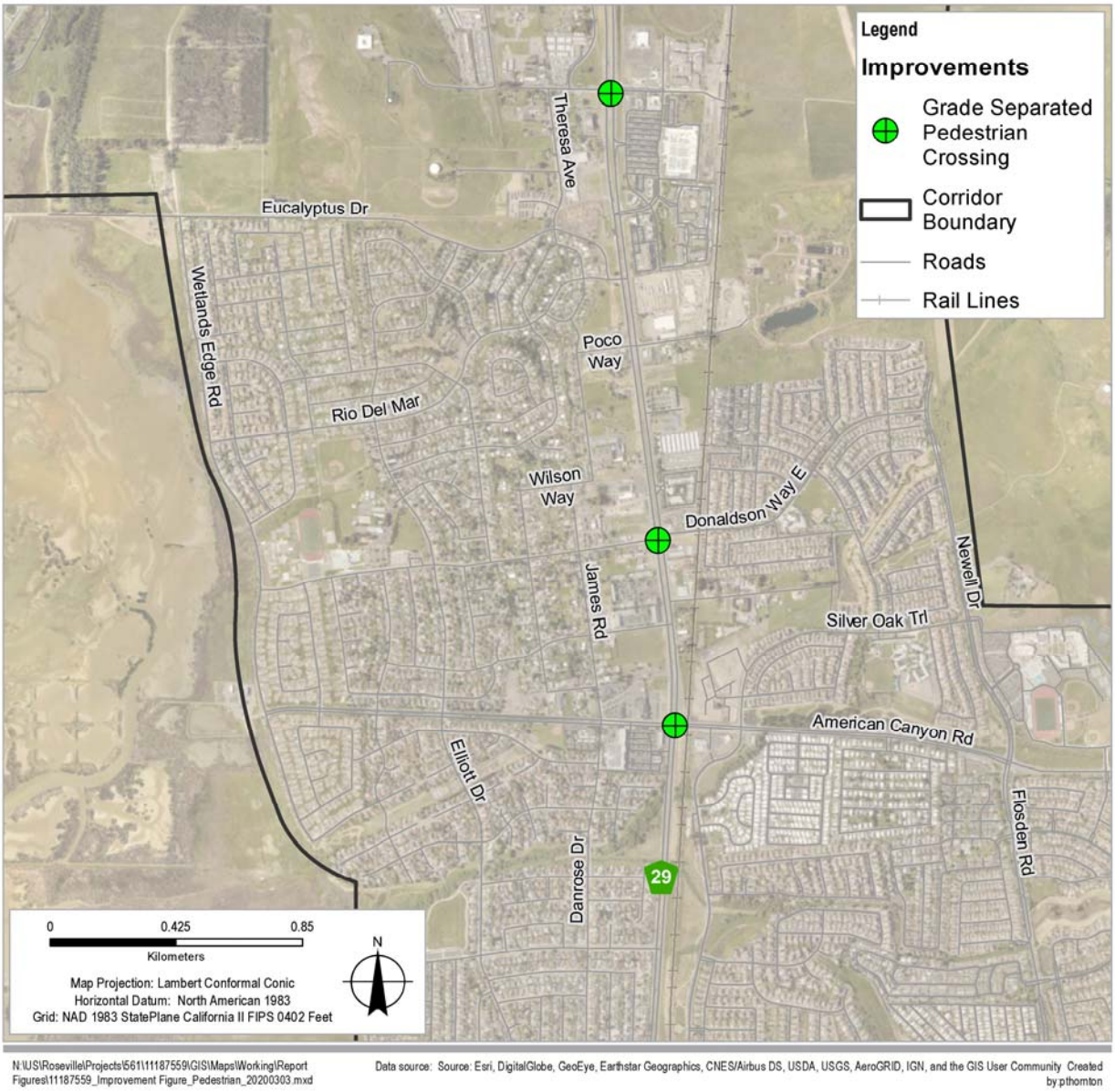
Data source: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community Created by:pthornton

Grade-Separated Pedestrian Crossings

Grade-separated pedestrian crossings would provide safe access across major intersections for pedestrians. Proposed locations, consistent with the City of American Canyon's General Plan Circulation Element, are along SR 29 at the intersections of Donaldson Drive, American Canyon Road, and Napa Junction Road. Figure 38 depicts the location of the proposed grade-separated pedestrian crossings.

Grade-separated pedestrian crossings provide a low-stress crossing option, provided they are designed according to be accessible and safe, and can provide some operation improvements to intersections that are able to eliminate at-grade pedestrian traffic signal cycles. However, these improvements can be expensive and can result in more circuitous pedestrian circulation than direct at-grade crossings.

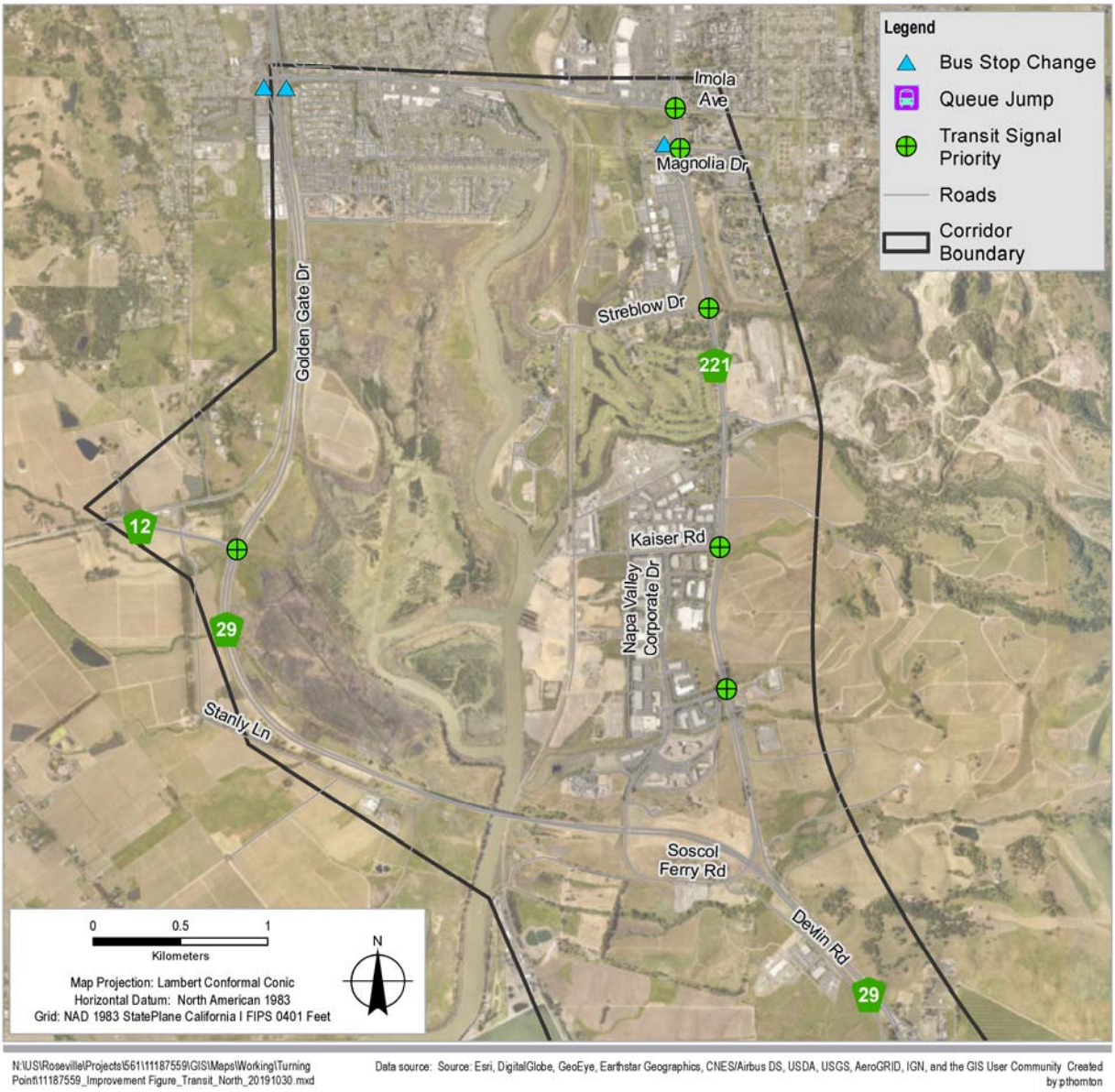
Figure 38: Grade-Separated Pedestrian Crossings



Transit

A variety of proposed transit improvements are included in the SR 29 CMCP. These improvement categories are described below in more detail. Proposed improvement locations in the northern study area are presented in Figure 39. Figure 40 presents proposed transit improvement locations in the central study area. Proposed improvement locations in the southern study area are shown in Figure 41

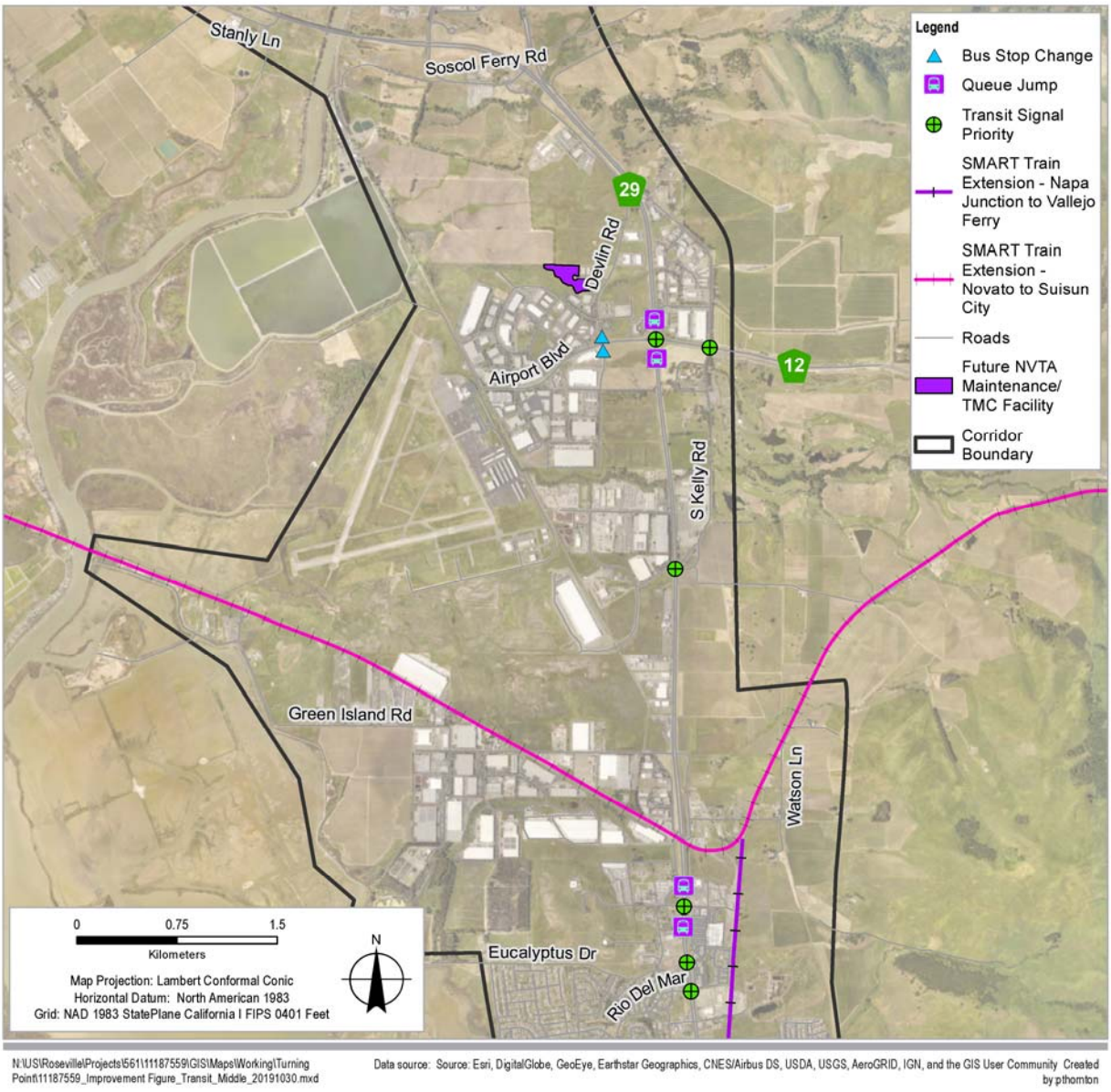
Figure 39: Transit Improvements - Northern Study Area



Bus Stop Changes

Proposed bus stop changes and/or upgrades would include benches, new or improved bus shelters, real-time travel information, wayfinding, and transit route information. Some locations would include Wi-Fi, bicycle storage, lighting, and improved pedestrian facilities.

Figure 40: Transit Improvements – Central Study Area



Queue Jump

Queue jump locations would provide dedicated lane space for buses to travel around queued vehicles at particular locations. Queue jumps reduce delay for buses caused by intersections and reduce travel time and variability. Proposed locations along SR 29 include Napa Junction Road, Donaldson Way, and American Canyon Road. The graphic below depicts an example of a queue jump intersection location.

Part Time Use of Shoulder

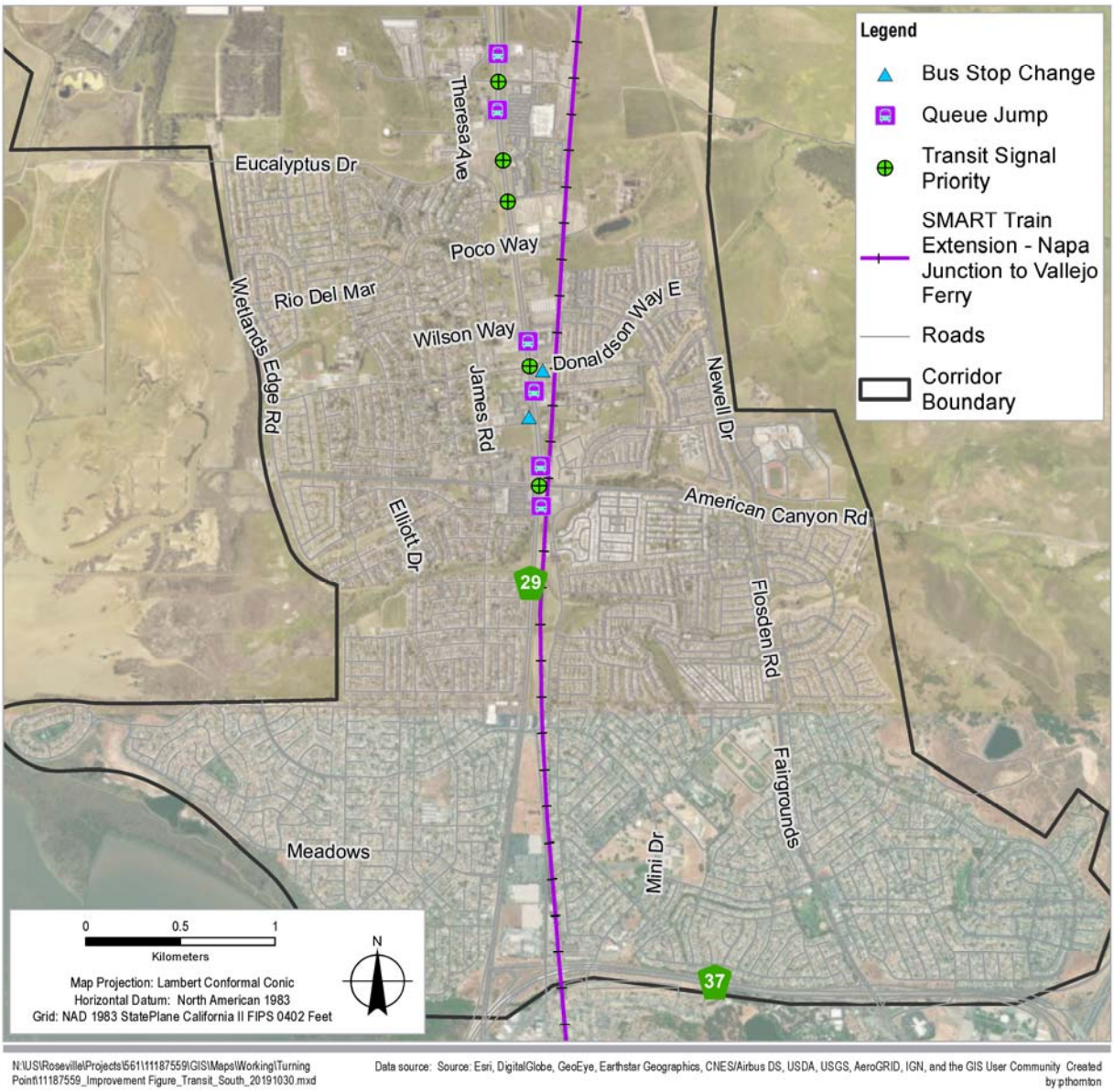
This improvement allows buses to use existing shoulder width to increase efficiency and improve transit service. Bus use of shoulder space is becoming a more common means to increase highway capacity and

transit service reliability. Caltrans has the authority to redesignate shoulders as a part-time use lanes. Caltrans is currently developing guidance for the implementation of part time lanes for shoulder use.

Part time bus use of the current shoulder space could present a potential conflict between bicyclists and buses. This conflict would be limited to the peak hours during which buses were allowed to operate in the shoulder. With current 30-minute bus headways, this potential conflict between users would be limited to twice in one hour. Proposed parallel Class I bikeways would remain a low-stress option.

Use of existing shoulders by buses would be implemented in conjunction with queue jump locations with between 1,000 and 1,500 feet depending on location constraints. Part time use of shoulder by buses would require upgrades to existing shoulders in order to ensure geometric design and pavement index requirements are met.

Figure 41: Transit Improvements - Southern Study Area



Transit Signal Priority

Transit signal priority can reduce travel time and improve reliability by giving priority to buses at intersections. Installation of equipment is needed on buses to activate the signal priority.

Increased Service Frequency

The Route 11X and Route 29 would be served by two new, electric, 40-foot buses, and increased service frequency to 30 minute headways.

SMART Train Extensions

Extensions of SMART train service into the study area are currently in early planning stages and lack funding source(s). SMART feasibility studies estimate a roughly $1B to achieve the planned extensions.

American Canyon to Vallejo Ferry Terminal

This north-south extension of the Sonoma-Marin Area Rail Transit (SMART) train would extend from Napa Junction in American Canyon to the Vallejo Ferry Terminal.

Novato to Suisun City

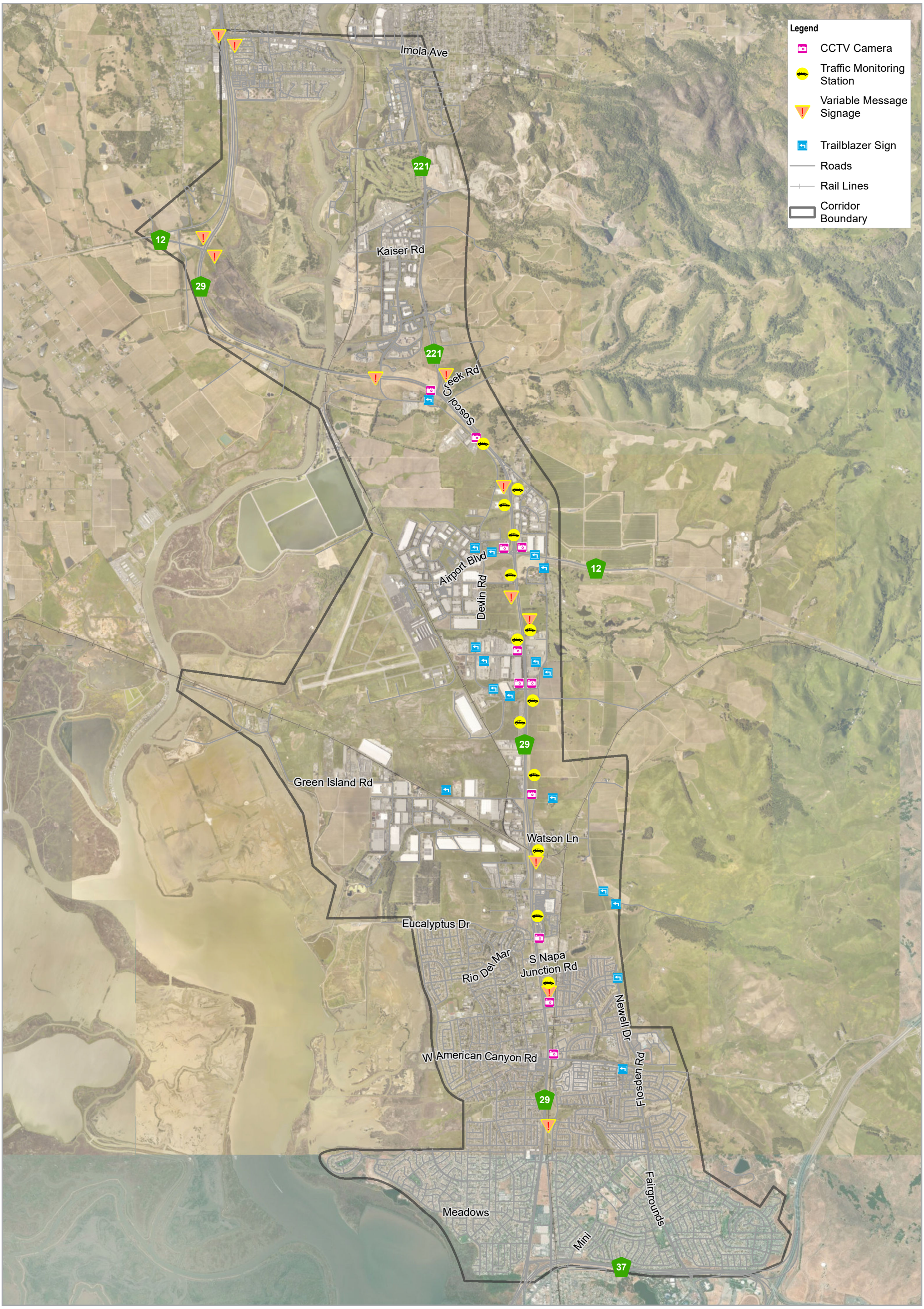
This extension of the SMART train would extend from Novato to Suisun City, passing through Napa County and providing east-west rail connectivity as an alternative to the SR 12, SR 37, and SR 29 corridors.

The extension would include upgrades to existing tracks, several bridges, and at-grade crossings. Station improvements would include upgrades to existing facilities at Novato-Hamilton and Suisun-Fairfield, and construction of new stations between these existing facilities. A passenger rail communication system would also need to be implemented.

Integrated Corridor Management

The Integrated Corridor Management (ICM) improvements considered in this Plan include: traffic monitoring detectors, Trailblazer Signs, CCTV Cameras, Variable Message Signs, and a Transportation Management Center to facilitate the deployment of the communications systems needed to facilitate the various intelligent transportation systems (ITS) within the ICM package. It is assumed that all field devices deployed would use wireless communications and that data is transferred to the Traffic Management Center through an internet network over 4G cellular system.

All current and future signalized intersections would be upgraded with traffic sensors/traffic detection; traffic signal controllers; and fiber optic or wireless communication systems at key corridor intersections. These communication devices would allow signalized intersections to be adaptive and allow them to react to changing traffic conditions; monitor traffic conditions in real time, and continuously distribute green time equitably for all traffic movements. Proposed locations of the ICM components discussed below are shown in Figure 42.



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NAPA VALLEY TRANSPORTATION AUTHORITY
SR 29 COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

INTEGRATED CORRIDOR MANAGEMENT IMPROVEMENTS

Project No. **11187559**
Revision No. **-**
Date **05/12/2020**

FIGURE 42

Data source: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community.

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NVTA Maintenance Facility/ Transportation Management Center

The new NVTA Vine Transit Maintenance facility is proposed to replace the existing facility at 720 Jackson Street. The new facility would be constructed on undeveloped land at the terminus of Sheehy Court, approximately 900 feet west of its intersection with Devlin Road in unincorporated Napa County. The eight-acre site would provide for maintenance for six bays, an administrative building, parking for 74 transit vehicles up to 45 feet long, 75 visitor and employee parking spaces, and the opportunity to host a Transportation Management Center (TMC). The TMC would be a multiagency project to coordinate transportation communication within the corridor. Further discussion to coordinate logistics of the TMC are required with Caltrans District 4 to prevent regional traffic management friction.

Traffic Monitoring Detectors

Field deployment of traffic monitoring detectors include underground loop and radar detectors. The detectors would monitor traffic conditions and communicate with the TMC for incident management. Proposed locations along SR 29 include:

- Near 231 Devlin Road
- 0.37 miles north of Airport Boulevard
- 850 feet south of Airport Boulevard
- 350 feet north of Tower Road
- 1,200 feet south of Kelly Road
- 830 feet north of Donaldson Way
- 200 feet north of Eucalyptus Drive
- Overpass near Paoli Loop Road
- 1,000 feet north of Paoli Loop Road
- 430 feet south of S Kelly Road
- 1,100 feet north of Tower Road
- 250 feet north of Airport Boulevard
- 0.27 miles south of Kelly Road

Trailblazer Signs

Trailblazer signs provide wayfinding information on roadways, guiding road users to routes, connections, and destinations. Signs at the proposed locations below would provide detour and route information to manage circulation and direct traffic in the corridor. This could alleviate congestion on SR 29 by diverting some drivers to parallel routes. Proposed locations include:

- Soscol Ferry Road/Devlin Drive: 250 ft east
- Devlin Road/Airport Boulevard: 300 ft north
- Airport Boulevard/Devlin Road: 300 ft east
- Tower Road/Devlin Road: 300 ft east
- Devlin Road/S Kelly Road: 650 ft north
- S Kelly Road/Devlin Road: 300 ft east
- Devlin Road/Green Island Road: 300 ft north

- American Canyon Road/Newell Drive: 500 ft west
- Newell Drive/Donaldson Way: 300 ft south
- S Kelly Road/Rio Del Mar: 300 ft south
- Rio Del Mar/S Kelly Road: 300 ft east
- Paoli Loop Road/S Kelly Road: 300 ft south
- S Kelly Road Extension/S Kelly Road: 300 ft south
- S Kelly Road/S Kelly Road Extension: 300 ft west
- S Kelly Road/Lincoln Avenue: 300 ft south
- Lincoln Avenue/S Kelly Road: 500 ft west

CCTV Cameras

Closed-circuit television (CCTV) cameras would be used in conjunction with variable message signs and traffic monitoring detectors to monitor and manage traffic conditions throughout the corridor.

Proposed locations along the west side of SR 29 include:

- Soscol Ferry Road
- 231 Devlin Road
- Airport Boulevard
- Tower Road
- South Kelly Road

Proposed locations along the east side of SR 29 include:

- American Canyon Road
- Donaldson Way
- Rio Del Mar
- Paoli loop Road
- South Kelly Road
- Lincoln Avenue

Variable Message Sign

Variable message signs are traffic control devices capable of displaying one or more alternative messages. As one component of the Integrated Corridor Management improvement package, variable message signs would be used for incident management and route diversion to divert and control traffic throughout the corridor. This may result in lowered congestion and delay on more commonly traversed routes. Proposed locations along SR 29 include one half-mile north of the following intersections:

- Soscol Ferry Road
- Airport Boulevard
- Tower Road
- Donaldson Way

Proposed locations also include one half-mile south of the following intersections:

- American Canyon Road
- Paoli Loop Road
- Lincoln Avenue

Proposed locations off the SR 29 mainline:

- SR 221 east of SR 29 (Soscol Junction)
- SR 12 west of SR 29 (Carneros Junction)
- SR 121 (Imola Avenue) east of SR 29 and west of SR 221

6-Performance Assessment

The performance metrics selected for the SR 29 CMCP informed each of the six Smart Mobility Framework objectives to ensure that the resulting improvement recommendations provide a balanced, sustainable, and multimodal assessment of current and forecasted corridor conditions. Requisite rubrics include:

- Planning level cost opinions
- Mode shift and vehicle miles travelled
- Level of traffic stress scores
- Collision reduction benefit
- Health and air quality benefit
- Vehicular delay and buffer time reductions
- Societal cost and benefit monetization factors
- Return on investment (i.e. benefit-cost)

Equal attention was given to document the beneficial outcomes of measures not directly reflected in the benefit-cost assessment. These include:

- Plan and Policy Consistency (with existing NVTA, City and County of Napa, City of American Canyon and Caltrans plans and policies)
- Environmental/Institutional Sensitivity
- Adaptation
- Economic Development
- Community Acceptance

Using these tools to measure effectiveness, the following benefit quantitative and qualitative analyses are summarized below and presented in the following sections:

- Induced Demand/Bicycle Mode Shift Benefits
- Multimodal Connectivity/Level of Traffic Stress
- Transit Ridership
- Vehicle Operations
- Safety
- Interconnected Streets and Integrated Corridor Management
- Air Quality
- Environmental Justice and Social Equity
- Economic Development
- Adaptation Assessment
    - Climate Change Vulnerability
- Plan and Policy Consistency
    - Plan Consistency
    - Policy Consistency
    - Community Support
- Emerging Technologies Assessment

Induced Demand/Bicycle Mode Shift Benefits

To estimate the induced demand associated with the bicycle improvements proposed in the State Route 29 Comprehensive Multimodal Corridor Plan, the project team utilized the National Cooperative Highway Research Program (NCHRP) 552 methodology provided in the *Guidelines for Analysis of Investment in Bicycle Facilities*.

The facilities included in the benefit analysis presented herein include the Class I path gap closures along the Bay Trail and Vine Trail alignments and the provision of bike paths adjacent to SR 29 from SR 37 to Napa Junction Road, Napa Junction Road to Napa Valley Vine Trail, and South Kelly Road to Soscol Junction. The employed methodology, estimated benefits and associated benefit-cost ratio is described in the following sections.

Methodology

The analysis quantifies the induced demand mode shift (induced demand) associated with the proposed improvements, and monetizes the annualized mobility, health, recreation and decreased auto use benefits provided by the projected mode shift at high, moderate and low estimates. Bicyclists are more likely to use a facility if they live within a 1.5 mile buffer than if they live outside of this distance. Moreover, the highest likelihood of a member of the population to use the facility exists if they live within a 0.5 mile buffer around the facility. The NCHRP 552 methodology suggests that bicycle commute mode share can be utilized to estimate the number of existing and future bicycle ridership based on the population, and low, moderate, and high likelihood multipliers at 1.5 mile, 1 mile, and 0.5 mile buffers that surround a facility. Each buffer area—at 0.5, 1 and 1.5 mile buffers from the proposed improvements was created using a network-based analysis in a GIS environment. Benefit values are based on the following assumptions:

- Existing cyclists near a new facility will shift from a nearby facility to a new facility
- The new facility will induce new cyclists as a function of the number of existing cyclists relative to the attractiveness of the proposed facilities

To estimate future bicycle ridership, the population near the improvements was calculated using block level population data from the 2010 Decennial U.S. Census, Solano-Napa Activity Based Model (SNABM), and distance buffers of 0.5 miles, 1 mile and 1.5 miles based on the NCHRP Report 552 methodology. 2010 population estimates were utilized as baseline population estimates. Population growth rates were calculated using the land use data by TAZ found in the 2015 and 2040 SNAB Models and applied to the baseline to estimate future population. The total population within each buffer distance range near the proposed improvements was estimated by multiplying the proportion of area of each buffer to the area of the whole block by the estimated block population.

Using the estimated population and the sketch planning method presented in Appendix A of NCHRP Report 552, existing bicycle rates and the mobility, health, recreation, and decreased auto use benefits at high, moderate and low levels were estimated.

Induced Demand

Induced demand takes into account percentage of child and adult population, bicycle commute mode share, percentage of children who bicycle, and the population within three buffer distances, 0.5 miles, 1.0 miles, and 1.5 miles, of the proposed facility. These variables are incorporated into the equations provided in the NCHRP methodology.

The result of the estimated induced demand analysis is reported below. Appendix F provides a detailed explanation of the analysis procedures and results. Table 13 presents the new adult, children commuter and total bicyclists estimated to induce with implementation of the proposed improvements.

These results are used to calculate the measures of effectiveness associated with bicycle mode shift (reduction in trips and VMT), and the mobility, health, recreation, and decreased auto use benefits discussed in the following sections.

Table 13: Study Area Induced Demand Results

Study Area Induced Demand Results	
Total New Commuters, 2400m	67
Total New Commuters, 1600m	186
Total New Commuters, 800m	142
Total New Adult Cyclists, High 2400m	205
Total New Adult Cyclists, High 1600m	571
Total New Adult Cyclists, High 800m	437
Total New Adult Cyclists, Moderate 2400m	95
Total New Adult Cyclists, Moderate 1600m	263
Total New Adult Cyclists, Moderate 800m	202
Total New Adult Cyclists, Low 2400m	53
Total New Adult Cyclists, Low 1600m	147
Total New Adult Cyclists, Low 800m	111
Total New Child Cyclists, 2400m	106
Total New Child Cyclists, 1600m	296
Total New Child Cyclists, 800m	232
Total New Cyclists, High	2243
Total New Cyclists, Moderate	1590
Total New Cyclists, Low	1340

Measures of Effectiveness

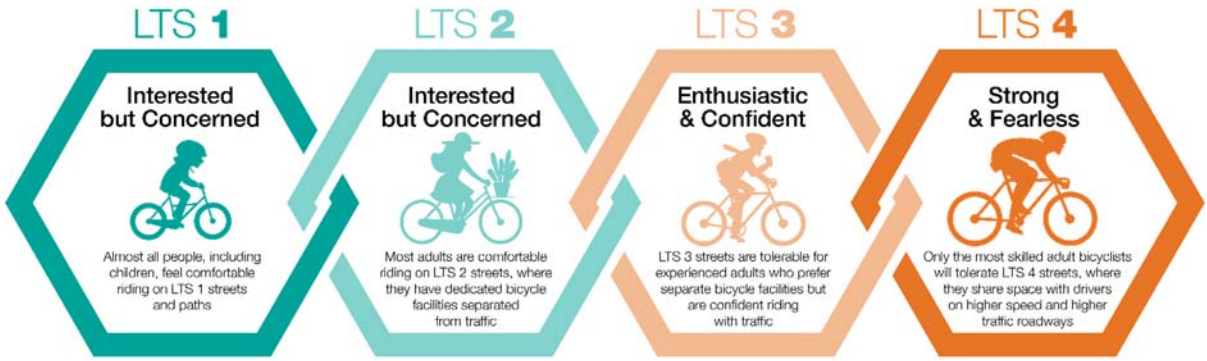
Induced demand/bicycle mode shift can be measured by the reduction in vehicle trips and vehicle miles traveled (VMT) associated with the proposed bicycle improvements using the methodology described above. The number of trips and VMT reduced was calculated using the number of new commuters estimated using the NCHRP methodology and the average person trip length (9.34 miles) reported by the 2017 National Household Transportation Survey (NHTS). Because the NCHRP 552 methodology uses new commuters to estimate decreased auto trips, trip reductions and VMT are annualized under the assumption that a working year is comprised of 47 weeks and 5 days per week to account for the typical work week and vacations. These measures are reported in Table 14.

Table 14: Reduction in Trips and VMT Associated with Induced Demand

Induced Demand Measures of Effectiveness (MOE)	
MOE	Count
Daily New Commuters	396
Daily Reduction in Trips	792
Daily Reduction in VMT	7,397
Annualized Reduction in Trips	186,120
Annualized Reduction in VMT	1,738,361

Multimodal Connectivity/ Level of Traffic Stress

While the quantitative benefits associated with bicycle and pedestrian improvements are assessed using induced demand and bicycle mode shift, qualitative benefits of these improvements can be analyzed by examining improvements to multimodal connectivity throughout the corridor. Connectivity benefits associated with the improvements recommended in this plan are analyzed through the lens of Level of Traffic Stress (LTS). The LTS analysis presented herein incorporates Bicycle Level of Traffic Stress methodologies as a proxy for analyzing traffic stress for all active transportation network users. The recommended improvements provide low stress connectivity throughout the study area with off-street bicycle and pedestrian facilities and improved crossings along and adjacent to SR 29.



These improvements include the SR 29 Multimodal Improvements, the San Francisco Bay Trail and Napa Valley Vine Trail, a grade-separated pedestrian crossing at American Canyon Road/SR 29, and intersection improvements at Soscol Junction and Airport Boulevard/SR12/SR 29—both of which feature bicycle and pedestrian facilities planned to safely integrate with the proposed network improvements. The LTS with the recommended improvements are displayed in Figure 43.

The active transportation improvements along SR 29 allow for low stress travel options for bicyclists and pedestrians through Vallejo, American Canyon and unincorporated Napa County, and provide connectivity to other low-stress facilities proposed within the corridor study area.

Segment One, between SR 37 and Napa Junction Road, includes Class I Paths, landscaping, and median improvements. Landscaping improvements and an eight foot shoulder serve as a barrier between the separated path and vehicular traffic, providing low stress connectivity through the entirety of this roadway segment. Additionally, the landscaping and median improvements could contribute to traffic

calming and lowered traffic stress by transforming the look and feel of the corridor segment from both the driver and active user's perspective. Vehicles tend to slow in areas that look like pedestrian and bike-friendly corridors, and active users are more likely to utilize the facility when the environment encourages them to travel there.

Segment Two improvements are proposed to extend the existing Class I facility between Napa Junction Road and the Paoli Loop Road segment of the proposed Napa Valley Vine Trail. Together, Segment One and Two improvements provide continuous low stress transportation options along SR 29 from the Southern ingress of the corridor study area. Additionally, the proposed improvements connect to the proposed Napa Valley Vine Trail alignment to provide comprehensive low stress connectivity across the study area.

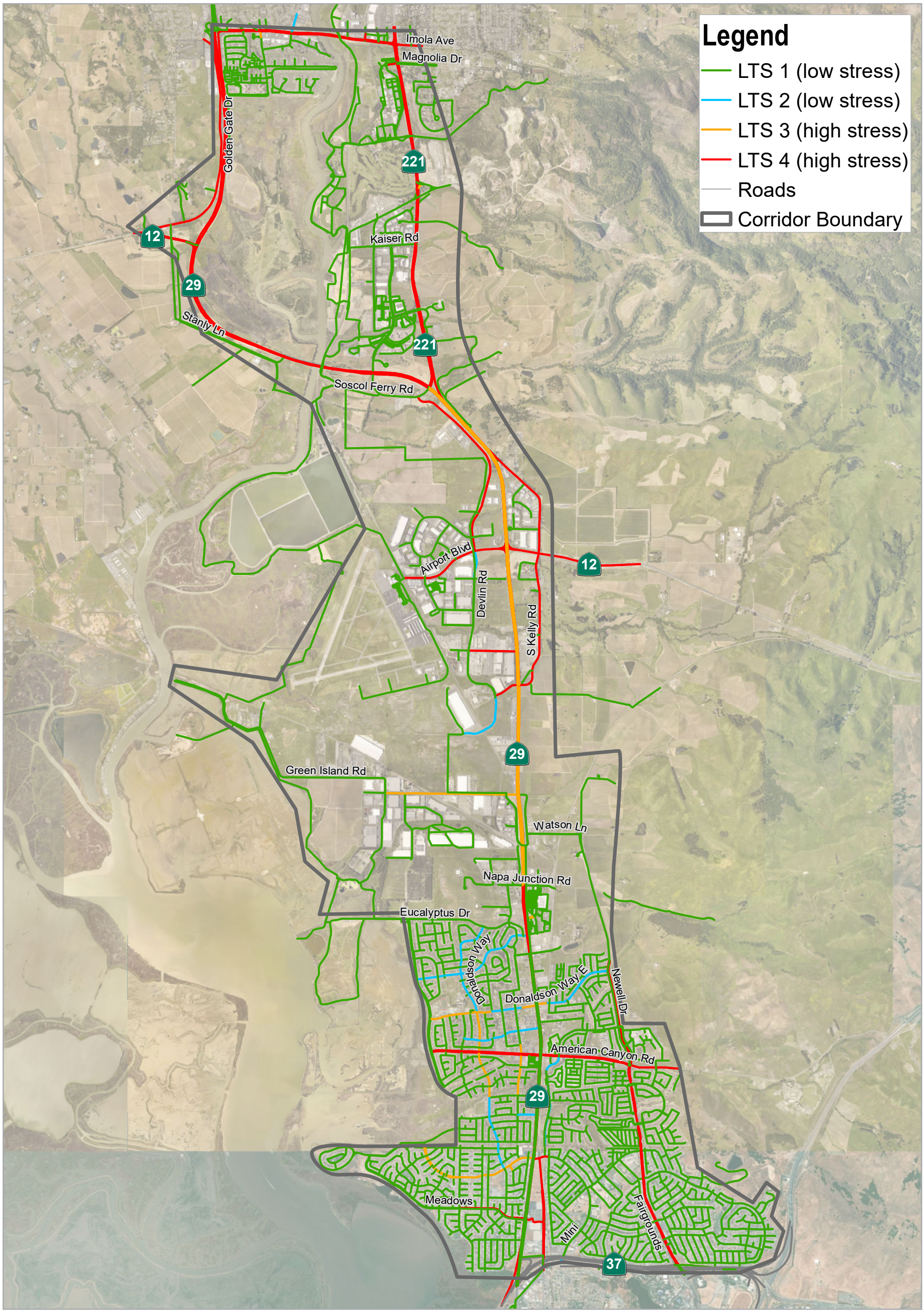
Finally, Segment Three improvements include Buffered Class II facilities along SR 29 between South Kelly Road and Soscol Junction. While this facility is higher stress due to high speeds and volumes, the facility results in reduced traffic stress compared against the existing condition due to the 10 foot Class II bike lane with a 6 foot buffer. There are a variety of buffering materials that could further reduce traffic stress by increasing driver awareness. This includes but is not limited to rumble strips; high visibility, hatched pavement markings; and painted bike lanes.

While SR 29 remains a high stress barrier north of Napa Junction Road, the San Francisco Bay Trail and Napa Valley Vine Trail Class I Paths offer low stress travel options as an alternative to SR 29. These facilities connect to low stress, local streets and other low stress recommended facilities to enable multimodal connectivity across the study area.

Additionally, the intersection improvements at Soscol Junction and Airport/SR 12/SR 29 improve high stress bicycle and pedestrian crossing conditions at these locations by incorporating multi-stage crossings, bicycle ramps, and shared-use bicycle and pedestrian facilities connecting to existing and proposed facilities.

All of the Class I Path and intersection improvements discussed above provide low stress connectivity for both bicyclists and pedestrians. In addition, the proposed pedestrian overcrossing at American Canyon Road provides low stress crossing opportunity for pedestrians crossing at American Canyon Road and SR 29. Three pedestrian crossing locations were considered, as described previously. The American Canyon Road location was chosen based on the proximity to key origins and destinations, including schools, parks, commercial, and residential land uses.

Collectively, the proposed active transportation, transit and operational improvements coalesce to provide a comprehensively connected, safe and multimodal corridor.



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NAPA VALLEY TRANSPORTATION AUTHORITY
SR 29 COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

Bicycle Level of Traffic Stress with Proposed Improvements

Project No. 11187559
Revision No. -
Date 05/12/2020

FIGURE 43

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Data source: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community. Created b

Transit Ridership

Overview

To assess the benefits associated with the transit improvements proposed in the SR 29 CMCP, the methodologies presented in Transit Cooperative Research Program (TCRP) Report 118: *Bus Rapid Transit Practitioner's Guide* was employed to project transit ridership. Transit improvements include a 30 minute increase in service frequency for Route 11X and Route 29, as well as Transit Queue Jumps, Transit Signal Priority, and Part-Time Use of Shoulder at select intersection locations. Route 11X and Route 29 are both proposed to transition from 60 minute to 30 minute headways and add two 40' electric busses to NVTA's fleet. Although a dedicated BRT line is not proposed (i.e., dedicated travel lane and 15 minute headways), the above improvements all serve to prioritize transit vehicle operations and travel times to improve on-time performance and reliability in ways that emulate BRT operations. These improvements justify the conservative application of the BRT Practitioners Guide Elasticity Methodology for estimating the mode shift analysis for improving the service frequency of Routes 11X and 29.

Ridership Projections and VMT Reduction Benefit

Available ridership data from the Vine Transit System was analyzed in addition to ridership projections associated with proposed service expansions for Route 11X and Route 29. These routes will be servicing their existing routes so any change in ridership will be solely attributable to the increase in frequency (not capturing new markets via route diversions). Annualized projections of ridership changes, and average vehicle trip length reported by the 2017 National Household Transportation Survey (NHTS) were utilized to estimate a reduction in Vehicle Miles Traveled (VMT) associated with the proposed improvements. The annualized increase in ridership projected to occur as a result of the proposed service frequency improvements is presented in Table 15 and the annualized VMT reduction associated with these projected changes in ridership are summarized in Table 16.

Table 15: Annualized Transit Ridership Increases

Annualized Transit Ridership Increase		
Route	Service Period	
	AM	PM
29-N	43,732	58,058
29-S	66,352	26,390
11X-N	31,668	16,588
11X-S	8,294	12,818

Table 16: Annualized VMT Reduction Associated with Transit Ridership

Annualized VMT Reduction		
Route	Service Period	
	AM	PM
29-N	408,457	542,262
29-S	246,483	619,728
11X-N	295,779	154,932
11X-S	77,466	119,720

Vehicle Operations

Unique 2040 Programmed (Baseline) and 2040 SR 29 CMCP (Planned) future year volume sets that reflect the traffic diversion and AM/PM peak hour circulation characteristics were developed to quantify the diversion of traffic onto parallel routes created by potential roadway capacity improvements and other operational improvements. These future-year volume sets served as inputs to the VISSIM microsimulation model.

Roadway Operations Performance Summary

Operational benefits associated with the planned roadway network were quantified by changes to delay and travel time reliability. Performance measures were generated from the VISSIM microsimulation for existing, future baseline, and future with project conditions. These performance measures included:

- Person throughput
- Person hours of delay (PHD)
- Travel time reliability – travel time index/buffer time index
- Vehicle hours of delay (VHD)
- Vehicle miles traveled (VMT)

Performance measure results are provided in Table 17.

Table 17: Roadway Operations Measures of Effectiveness

Simulation Scenario	Vehicle Miles Traveled (miles)	Total Delay (Hrs)	Person Delay (Hrs)	Vehicle Throughput	Person Throughput
Existing AM	249,031	1,297	1,686	20,824	27,071
Existing PM	297,697	1,296	1,685	23,083	30,008
Baseline 2040 AM	295,589	1,642	2,134	21,964	28,553
Baseline 2040 PM	328,934	2,778	3,612	26,006	33,808
Planned 2040 AM	283,004	1,087	1,414	22,328	29,026
Planned 2040 PM	399,604	2,147	2,791	26,924	35,001

Travel Time Reliability

Table 18 shows the travel time and buffer time as well as indices for each of these metrics for each scenario (passenger vehicle and trucks combined). INRIX Analytics data in conjunction with data produced by Vissim simulation network model was used to estimate future buffer time for the baseline and planned condition. Future buffer times are proportional to correlation between Travel Time Index (TTI) between existing condition and future conditions. Average travel time in calculation of TTI (which is a ratio of average travel time and free flow travel time) was generated by the VIssim Simulation model while the free flow travel time was calculated based on INRIX Analytics data.

Table 18: Travel Time Results by Scenario – All Vehicle Types

	Travel Time (Minutes)		Travel Time Index (TTI)		Growth in TTI		Buffer Time	
Direction	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Northbound								
Existing	18:19	14:31	1.6	1.3	-	-	17:56	06:13
Baseline	24:00	26:23	2.1	2.3	1.2	1.6	20:57	10:11
Planned	23:14	22:41	2.1	2.0	1.1	1.4	20:17	08:45
Southbound								
Existing	12:25	21:01	1.0	1.7	-	-	04:33	19:25
Baseline	20:38	27:34	1.7	2.3	1.4	1.3	06:20	24:35
Planned	17:24	21:52	1.4	1.8	1.2	1.0	05:21	19:29

Vehicular Level of Service

Table 19 shows the LOS of the study intersections for the Planned Network scenario within the AM peak hour, and Table 20 displays this for the PM peak hour. As shown – all intersections identified for improvements operate at LOS D or better except SR 29/Carneros Highway. One intersection that was not identified for capacity improvements, SR 29/American Canyon Road is shown to operate at LOS F in both peak hours. This intersection will be improved to include channelization for bus queue jumps and part-time use of shoulder for transit which will provide operational benefits (these infrastructure improvements are not reflected in the microsimulation model). Additionally, a grade separated pedestrian bridge is identified near the intersection of SR 29/American Canyon Road which will preclude the need for a pedestrian crossing cycle. This will allow more green time to the through movements on SR 29 which will also improve operations at this intersection.

Table 19: Level of Service – SR 29 CMCP (Planned) Improvements 2040 Network (AM Peak Hour)

Intersection	Control Type	Intersection Delay (sec)	LOS	Vehicle Through-put	Veh Hrs of Delay	Person Through-put	Person Hrs of Delay
SR 29 & Carneros Hwy	Signal	81.1	F	5,014	113.0	6,518	146.9
SR 29 & SR 221/Soscol Ferry Rd	Interchange	8.0	A	5,917	13.2	7,692	17.2
Airport Blvd/Devlin Rd	Roundabout	10.7	B	1,352	4.0	1,758	5.2
SR 29 & Airport Blvd/SR 12	Interchange	8.9	A	5,460	13.5	7,098	17.6
SR 12 & Kelly Rd	Roundabout	6.7	A	2,750	5.1	3,575	6.6
SR 29 & S. Kelly Rd	Signal	22.7	C	3,805	24.0	4,947	31.2
SR 29 & Eucalyptus Drive	Signal	18.3	B	3,581	18.2	4,655	23.6
SR 29 & Rio Del Mar	Signal	34.5	C	3,611	34.6	4,694	45.0
SR 29 & S. Napa Junction Rd	Signal	53.9	D	3,703	55.4	4,814	72.0
SR 29 & American Canyon Rd	Signal	187.1	F	4,481	232.9	5,825	302.7

Table 20: Level of Service SR 29 CMCP (Planned) Improvements 2040 Network (PM Peak Hour)

Intersection	Control Type	Intersection Delay (sec)	LOS	Vehicle Through-put	Veh Hrs of Delay	Person Through-put	Person Hrs of Delay
SR 29 & Carneros Hwy	Signal	57.0	E	5,714	90.5	7,428	117.7
SR 29 & SR 221/Soscol Ferry Rd	Interchange	6.6	A	6,903	12.6	8,974	16.4
Airport Blvd/Devlin Rd	Roundabout	5.3	A	1,368	2.0	1,778	2.6
SR 29 & Airport Blvd/SR 12	Interchange	30.4	C	7,034	59.5	9,144	77.3
SR 12 & Kelly Rd	Roundabout	35.4	D	4,153	40.9	5,399	53.1
SR 29 & S. Kelly Rd	Signal	22.9	C	3,573	22.8	4,645	29.6
SR 29 & Eucalyptus Drive	Signal	22.0	C	4,039	24.6	5,251	32.0
SR 29 & Rio Del Mar	Signal	32.9	C	3,756	34.3	4,883	44.6
SR 29 & S. Napa Junction Rd	Signal	42.2	D	3,867	45.3	5,027	58.9
SR 29 & American Canyon Rd	Signal	112.9	F	5,097	159.9	6,626	207.9

Safety

Overview

Based on contributing factors identified in the collision assessment, Part C of the Highway Safety Manual (HSM) was applied to estimate the potential safety performance of the CMCP improvement package. Crash Modification Factors (CMF) were applied to estimate the reduction in collisions. These reduced collisions were then distributed by severity—property damage only (PDO), injury, severe injury, or fatality—based on historical data of bicycle and pedestrian collisions experienced in the study corridor.

Bicycle and pedestrian related collisions and associated reductions were isolated to assess safety for active transportation users. The estimated reduction in collisions was distributed by severity—property damage only (PDO), injury, severe injury, or fatality—based on historical data of bicycle and pedestrian collisions experienced in the study corridor.

Safety Crash Modification Results

Vehicular and bicycle/pedestrian related collisions and improvements identified to improve safety were summarized for input into the HSIP analyzer to compute anticipated crash reduction. The safety benefit calculation worksheets that informs this analysis are provided in Appendix H. The anticipated collision reductions are presented in Table 21 alongside existing crash totals at these locations.

Table 21: Crash Reduction Summary

Countermeasure & Project Location	Total Crashes (2014 to 2018)	Collision Reduction Factor (CRF)	Anticipated Crash Reduction
R37 - Install Shared-Use Path – SR 29: SR 37 to Napa Junction Road	6	80%	5
R37 - Install Shared-Use Path – SR 29: Napa Junction Road to Paoli Loop Vine Trail	0	80%	0
R36 - Install Bike Lanes – SR 29:South Kelly Road to SR 12/Airport	2	35%	1
IC - Convert Signalized Intersection at SR 29/SR 221 (Soscol Junction) to Grade-Separated Interchange with Roundabouts	75	50%	38
S18 - Convert Signalized Intersection to Roundabout Devlin Rd at Airport Blvd	8	50%	4
IC - Convert Signalized Intersection at SR 29/Airport Blvd to Grade-Separated Interchange with Roundabouts	75	50%	38
S18 - Convert Signalized Intersection to Roundabout at S Kelly Rd/SR 12	38	50%	19
Total Project Area Expected Benefit	**204**	**49.5%**	**101**

**No benefit reported because no pedestrian and bicycle collisions reported near countermeasure area.*

Interconnected Streets and Integrated Corridor Management

According to FHWA, over 60% of delay experienced on United States roadways is caused by traffic incidents. Integrated Corridor Management (ICM) improvements provide benefit by directing traffic through the network by utilizing a series of interconnected, intelligent transportation communication devices. The ICM improvements recommended in this Plan include:

- Traffic monitoring detectors, such as underground loop and radar detectors;
- Trailblazer signage, providing wayfinding and route guidance to vehicles;
- Variable message signage, providing information through changeable messages to vehicles;
- CCTV cameras, used in conjunction with variable message signs and traffic monitoring detectors to monitor and manage traffic conditions; and
- Transportation Management Center, serving as the ICM hub to facilitate intelligent communications between the components listed above.

Additionally, these improvements are recommended to coincide with the parallel capacity improvements along Devlin Road and South Kelly/Newell Drive.

Some components can be useful during expected periods of congestion. However, the system can be particularly useful during unexpected incidences that cause high amounts of congestion such as special events or emergency incidences to manage and divert traffic quickly and safely through the corridor.

ICM Scenario Development

On June 14, 2019 in the city of American Canyon, commuters into Napa experienced a significant collision related incident as a utility pole was struck overnight between Green Island Rd and S. Kelly Road. This collision caused one northbound lane of SR 29 to be blocked during commute time while the utility pole was being replaced. Traffic was backed up for five miles during this incident and normal traffic operations were not seen until hours after all lanes were opened. This incident occurred and drivers were not alerted or aware as they attempted to travel northbound on SR 29.

With an Integrated Corridor Management (ICM) system, local agencies would be able to inform drivers of quick and easily accessible parallel routes along Devlin Road and S. Kelly Road. With these two parallel roadways providing much needed additional capacity, and with interconnected signals allocating significantly more green time to the through movements, the delay and backup from an incident similar to the one described above could drastically diminish queues, delays, and reduce GHG emissions.

An ITS benefit assessment was conducted to validate the operational impacts of implementing Integrated Corridor Management (ICM) throughout the study area through active freeway management, active Transportation Demand Management strategies, active transit management, active arterial management, and traveler information systems in the corridor. To assess the benefit associated with the proposed ICM improvements, corridor network operations were modeled using the VISSIM Planned networks with incidents and without incidents.

Scenario # 1 – Baseline

A VISSIM micro-simulation was completed to simulate the conditions if one lane of northbound traffic was closed during the AM and PM peak hour commutes. With no ICM system in place, drivers would not be immediately aware of the parallel capacity that Devlin Road and S. Kelly Road could provide to alleviate congestion along SR 29 during an event. Table 22 shows the potential travel time runs that may be experienced if only one northbound lane was open during the AM and PM peak hours.

Table 22: Scenario # 1 (No Diversion) Northbound Travel Time

Travel Time (Minutes)	
AM Peak Hour	PM Peak Hour
46.7	48.4

Scenario # 2 – Planed Network with ICM Improvements

A second VISSIM micro-simulation model was built to simulate the conditions if one lane of northbound traffic was closed during the AM and PM peak hour commutes but with an ICM system operating. Under this scenarios, drivers would see signs indicating the travel time benefits of using parallel roadways such as Devlin Road and Kelly Road. ICM provides safety benefits to the corridor in terms of improving possible evacuation scenarios when throughput demand may be increased beyond capacity.

Table 23 shows the projected travel time with an ICM system in operation.

Table 23: Scenario # 2 (With Diversion) Northbound Travel Time

Travel Time (Minutes)	
AM Peak Hour	PM Peak Hour
37.6	36.6

Adjacent intersection will experience higher delays as a result of traffic diverting from SR 29. The travel time presented above accounts for the additional delays that drivers would experience at adjacent intersections. With the parallel roadways, drivers can expect to save approximately 9.1 minutes in the AM peak hour and 11.8 minutes in the PM peak hour if an incident were to occur and one lane northbound was required to be closed during the entire commute time.

Air Quality

Air quality benefits were estimated using the Emissions Calculator or Cal-B/C. All requisite on-road activity inputs (i.e. study corridor VMT and vehicle speeds) for this analysis were generated by the VISSIM microsimulation model, the NCHRP 552 bicycle mode shift analysis, and TCRP-118 transit mode shift analysis.

Health-based criteria pollutants and climate change greenhouse gases (CO_2 and CO_2 equivalents) were quantified. Based on the on-road vehicle activity changes quantified, the SB 1 Emissions Calculator tool developed by the California Transportation Commission (CTC) was used to calculate the change in these emissions as a result of the SR 29 CMCP improvements. The emissions analysis was informed by the VMT and average vehicle speed characteristics of each of the CMCP improvements.

Air Quality benefits associated with the operational, bike-related and Transit improvements, reflected in Table 24, Table 25, and Table 26, respectively.

Table 24: Air Quality Benefits - Operational Improvements

Emissions Reduction	Reduction in Short Tons	
	Total Over 20 Years	Average Annual
CO Emissions Saved	288.79632	14.43982
CO2 Emissions Saved	140,694.75042	7,034.73752
NOX Emissions Saved	64.51040	3.22552
PM10 + PM2.5 Emissions Saved	2.76002	0.13800
SOX Emissions Saved	1.45560	0.07278
VOC Emissions Saved	26.61383	1.33069

Table 25: Air Quality Benefits - Bike Related Improvements

Emissions Reduction	Reduction in Short Tons	
	Total Over 20 Years	Average Annual
CO Emissions Saved	10.84134	0.54207
CO2 Emissions Saved	3,468.84983	173.44249
NOX Emissions Saved	0.82878	0.04144
PM10 + PM2.5 Emissions Saved	0.03232	0.00162
SOX Emissions Saved	0.03424	0.00171
VOC Emissions Saved	0.41034	0.02052

Table 26: Air Quality Benefits - Transit Improvements

Emissions Reduction	Reduction in Short Tons	
	Total Over 20 Years	Average Annual
CO Emissions Saved	27.83587	1.39179
CO2 Emissions Saved	8,906.50632	445.32532
NOX Emissions Saved	2.12795	0.10640
PM10 + PM2.5 Emissions Saved	0.08298	0.00415
SOX Emissions Saved	0.08792	0.00440
VOC Emissions Saved	1.05358	0.05268

Environmental Justice and Social Equity

Impacts of construction and benefit of use should be shared across the community regardless of ethnicity, economic situation or physical ability because improvements developed with public funds are for everyone[5]. Projects that could potentially impact minority or low-income communities, or that will provide benefits that favor wealthier communities, need to be off-set by mitigating activities, or another less impactful solution should be pursued.

Figure 44 presents CalEnviroScreen 3.0 results within the direct SR 29 CMCP study area. As shown, none of the study area covers any census tracks with a CalEnviroScreen 3.0 result worse than 80%, which is typically used to designated disadvantaged communities.

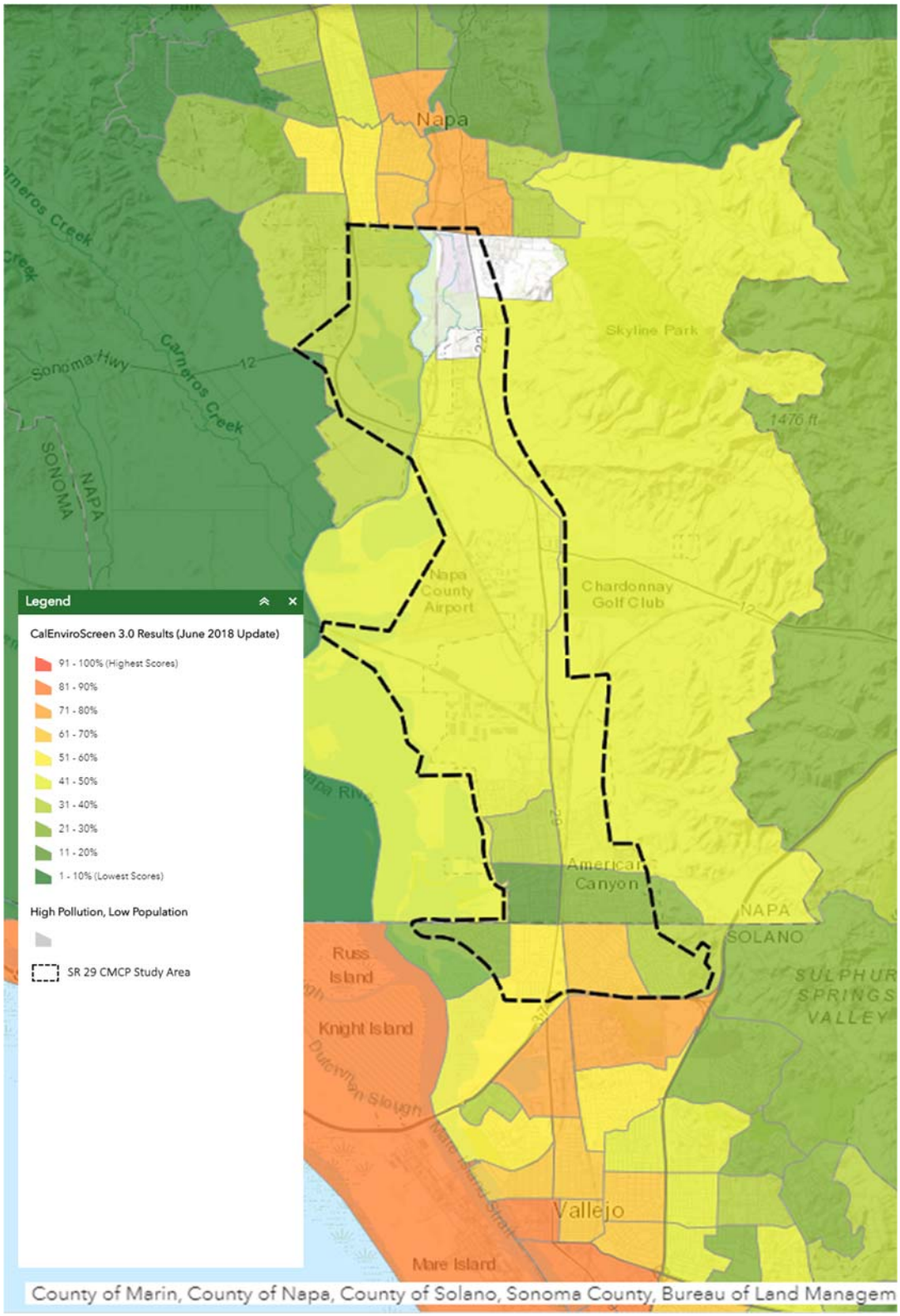
Figure 45 presents low income communities (per AB 1550) and disadvantaged communities (per SB 535). As shown, the SR 29 corridor connects several disadvantaged and low-income communities. Improvements identified in the SR 29 will benefit all users equally, including any disadvantaged and low-income communities that commute along the corridor.

All the improvements identified in the SR 29 CMCP preferred package address regional corridor-wide needs. Given that the SR 29 corridor itself serves a significant number of low income and minority populations, particularly those who work in service and agriculture-based industries, all improvements promote a social equity perspective. NVTA and MTC definitions for disadvantaged communities were used to differentiate the degree of improved accessibility between advantaged and disadvantaged communities resulting from the SR 29 CMCP improvement package.

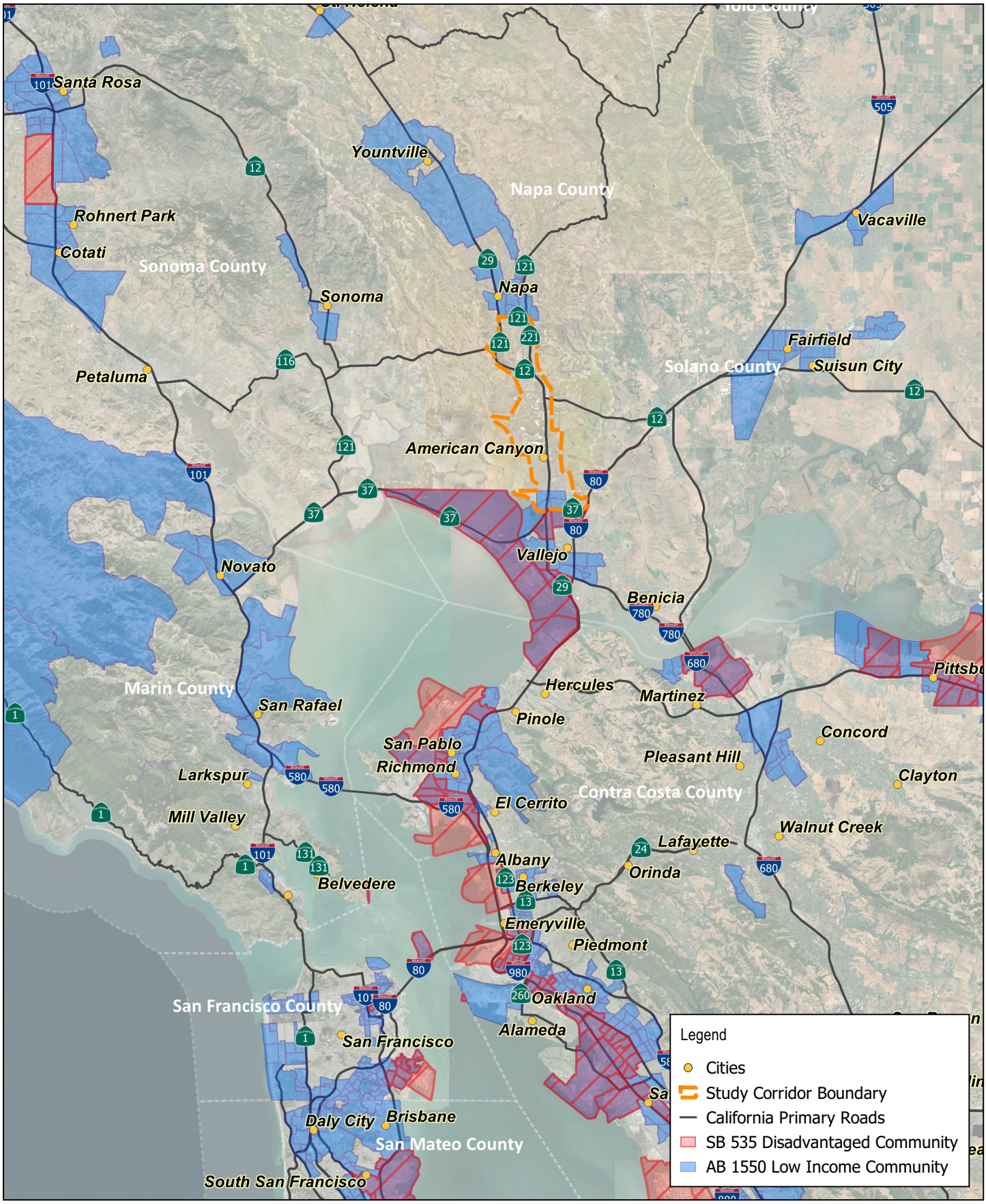
As described under the Active Transportation Accessibility and Mode Shift Analysis, LTS connectivity assessments were also conducted to identify the degree of access to active transportation and transit improvements by disadvantaged communities versus non-disadvantaged communities. Disproportionately high adverse effects resulting from the implementation of the SR 29 CMCP improvements on minority and low-income populations were also examined and found not to exist.

[5] The consideration of environmental justice is consistent with Title VI of the Civil Rights Act of 1964 and subsequent Executive Orders 12898 and 13166, that prohibit discriminatory based on a variety of factors.

Figure 44: Study Area CalEnviroScreen 3.0 Results



Source: CalEnviroScreen 3.0 Results (June 2018 Update), California Office of Environmental Health Hazard Assessment



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Map Projection: Mercator Auxillary Sphere
Horizontal Datum: WGS 1984
Grid: WGS 1984 Web Mercator Auxillary Sphere

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NAPA VALLEY TRANSPORTATION AUTHORITY
SR 29 COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

REGIONAL DISADVANTAGED AND LOW-INCOME COMMUNITIES

Project No. 1187559
Revision No. -
Date. 03/26/2020

FIGURE 45

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Economic Development

The economic analysis of the mobility improvements along the study corridor within the Corridor Plan consist of two parts:

- Benefit-cost analysis comparing the user benefits of the improvement plan with the costs of implementation
- Economic impact analysis showing the regional impacts/benefits of the Corridor Plan to help achieve the economic forecasts of increased jobs, housing and people

Benefit-Cost Analysis - The quantification of the benefit-cost of the proposed improvements are contained in this Performance Assessment chapter of this SR 29 CMCP document. To receive Federal or State grant funding, clear benefit to cost need to be calculated for each of the corridor solutions, which are contained herein.

Freight Movement –Table 27 shows the travel time and buffer time as well as indices for each of these metrics for trucks only. NPMRDS was used to calculate existing truck delay and build correlation between existing truck delay and regular vehicle delay. Truck delay was then estimated under baseline and future year conditions both with and without the project.

Table 27: Travel Time Results by Scenario – Trucks Only

	Truck Average Travel Time (Minutes)		Truck Travel Time Index (TTI)		Growth in TTI		Truck Buffer Time	
Direction	AM Peak Hour	PM Peak Hour	AM Peak Hour	AM Peak Hour	PM Peak Hour	PM Peak Hour	PM Peak Hour	PM Peak Hour
Northbound								
Existing	28:11	21:20	1.2	0.9	-	-	1:03:22	34:23
Baseline	36:56	38:47	1.5	1.7	1.3	1.8	1:23:02	1:02:32
Planned	35:46	33:20	1.5	1.4	1.3	1.6	1:20:24	53:45
Southbound								
Existing	20:08	36:56	0.8	1.3	-	-	23:05	56:08
Baseline	33:28	48:26	1.3	1.8	1.7	1.3	38:22	1:13:37
Planned	28:13	38:25	1.1	1.4	1.4	1.0	32:20	58:23

Economic Development - The IMPLAN 2018 Multiplier for Gross Regional Product for Napa County is 1.29. This indicates that every dollar expended in NICS Code 54, Highway Construction Streets and Roads, will generate a total (direct, indirect and induced) return of an additional 29 cents in GRP countywide. Of the $553 million funding necessary to implement the SR 29 CMCP, this equates to $160 million of additional GRP through 2040.

The IMPLAN 2018 Multiplier for Job Creation is 1.407. This indicates that for every job added to NICS Code 54, a total (direct, indirect and induced) of .407 full-time equivalent jobs should be generated. The direct job creation of the proposed SR 29 CMCP investment is projected to be 1,711 added FTEs that will generate the indirect effect of creating an additional 696 FTEs over the same time frame.

Economic Impact Analysis - The nine-county Bay Area region has continued growth and development plans, anticipating to have more than 4.5 million jobs and a population of upwards to 9.3 million people by 2040. To house this growing population, upwards of 450,000 to 500,000 more housing units will be needed by 2040. Within the study area, designated PDAs have the potential to absorb a significant share of this growth potential.

Currently as identified in this document, the existing SR 29 corridor is already impacted with congestion, limiting not only automobile travel for work commuting and recreation, but also limiting substantial truck travel for goods movement and agriculture. In addition, without a current connected multimodal system, multimodal corridor options are very limited, leaving only the state route and local roadways available to move people and goods.

The SR 29 CMCP is a comprehensive multimodal corridor plan that has identified high benefit-cost improvements and prioritized them to systematically meet the growing capacity and multimodal needs as they arise through 2040. Without the improvements contained in this Corridor Plan, travel, particularly during peak periods and peak seasons, would come to a standstill for extended periods of time. The balanced approach to not only provide additional street capacity, but also modal options for public transit and paths for both cycling and walking, greatly enhances the ability to move both people and goods in the future to at least, 2040. The implementation of the SR 29 CMCP will be essential to provide the increased capacity and modal options to support the planned economic growthe and development of the Napa Valley region.

Adaptation Assessment

A qualitative assessment of climate preparedness and infrastructure asset production/resilience was developed, taking full advantage of online mapping tools including the Caltrans Vulnerability Interactive Mapping Tool (District 4) and CalEnviroScreen 3.0, developed by the Office of Environmental Health Hazard Assessment. Flood and wildfire events were evaluated.

This assessment evaluated the enhanced risk associated with not implementing the SR 29 CMCP improvements as well as the corridor's overall use and functionality on:

- Multimodal transportation infrastructure assessment
- Network connectivity assessment
- Goods movement assessment
- Emergency response assessment
- Evacuation response assessment

State Route 29 – Climate Change Vulnerability Assessment

As a part of this comprehensive assessment for the SR 29 CMCP, a climate change vulnerability assessment has been prepared for each of the primary improvement categories. This assessment follows the guidance recently provided in the Caltrans Climate Change Vulnerability Assessment 2018 Summary Report, prepared by Caltrans District 4. In the 2018 Summary Report, Caltrans identifies in their assessment approach, three action items that must be considered in evaluating the potential climate change impacts on the assets of the State's transportation infrastructure, both existing and planned. Action items of the assessment included the following:

- Exposure – Will the asset be exposed to climate change?

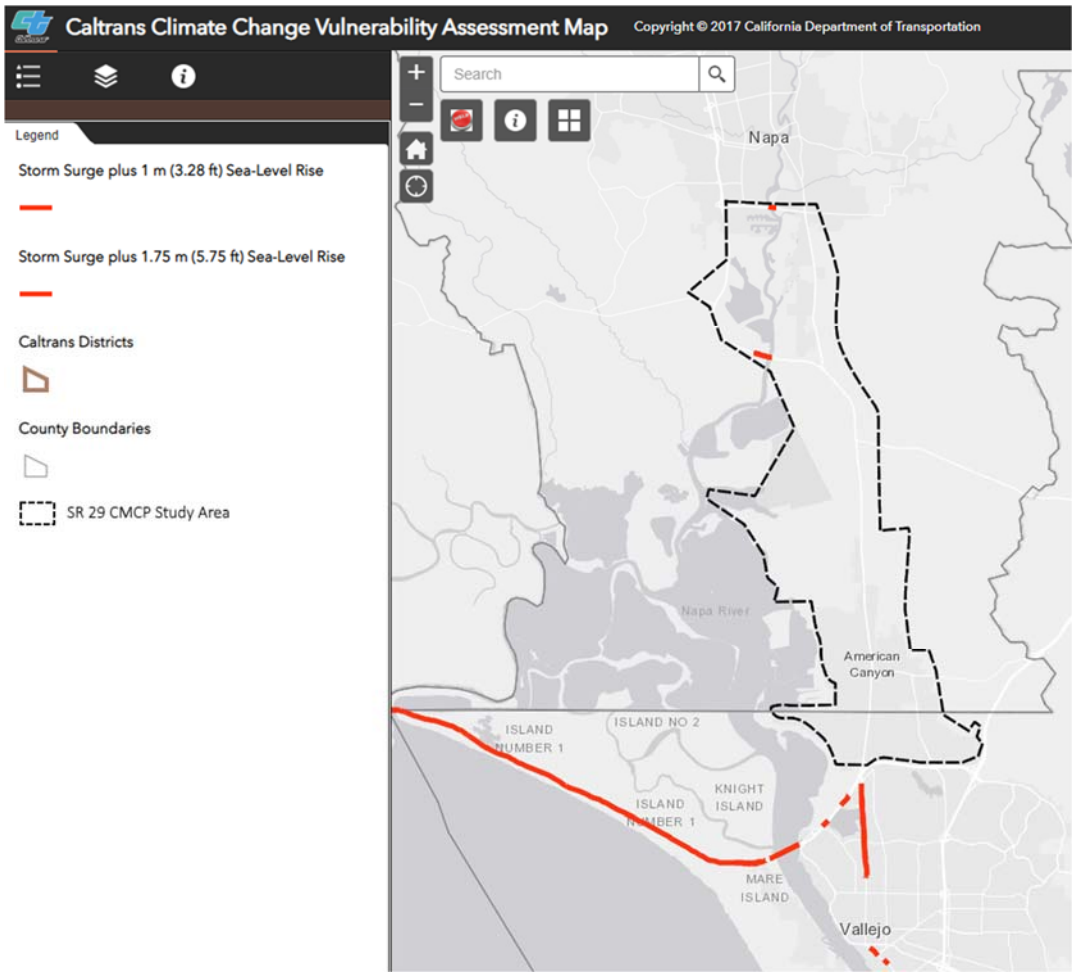
- Consequence – If it is, how will the asset deteriorate or otherwise be impacted and how quickly will such impact occur?
- Prioritizations – Presuming the asset is impacted, how frequent, at what cost and what risk needs to be considered prior to making the investment for improving or replacing the asset?

With acknowledgement that climate change is occurring and significant adverse events will continue to increase, the Caltrans report identifies the four primary climate change impacts for which the above action items need to be considered and the risks assessed. They are as follows:

- Temperature
- Precipitation
- Sea Level Rise
- Wildfires

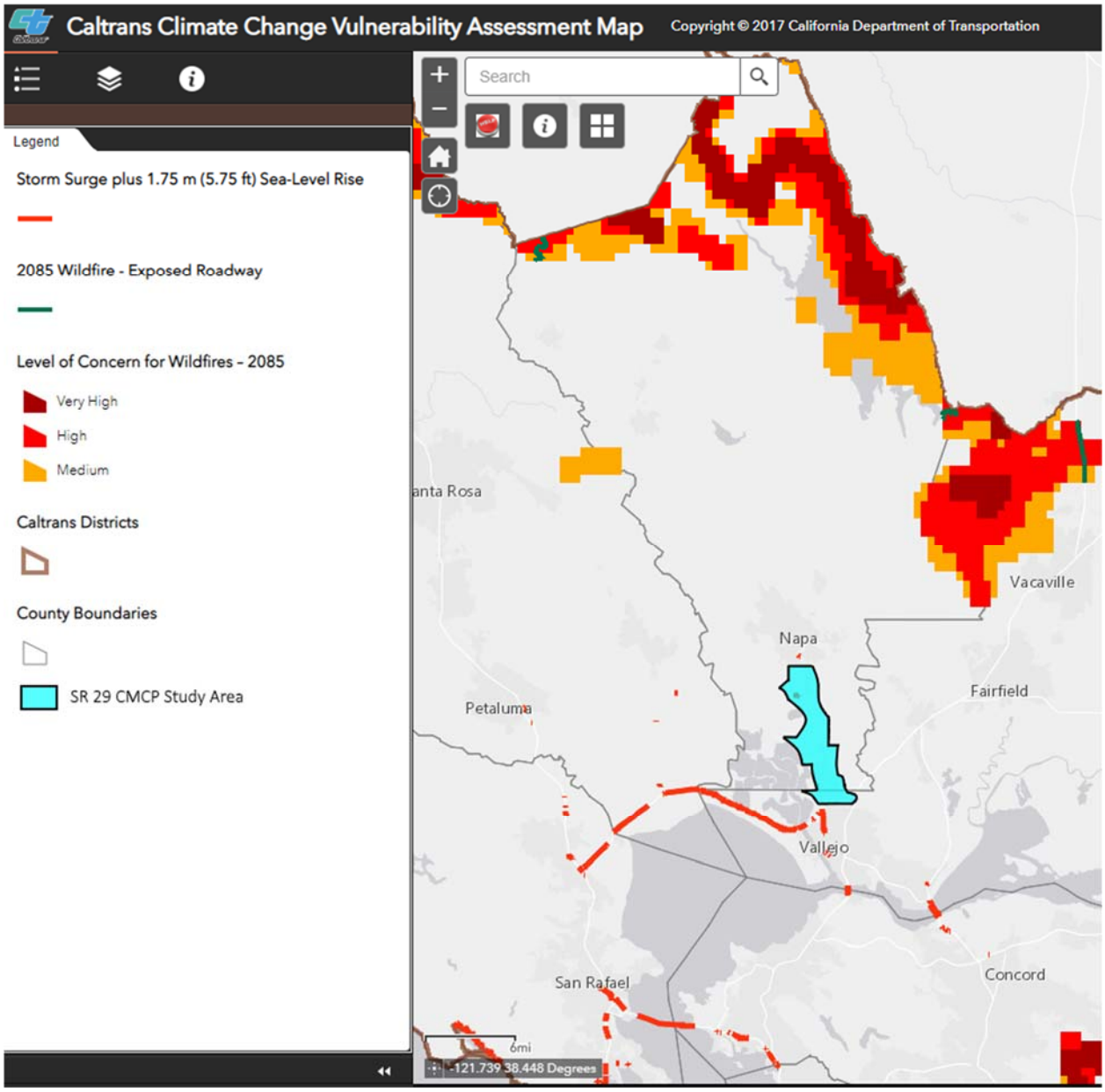
For each of these above potential climate change impacts, an assessment has been conducted regarding the proposed mobility improvements recommended in the SR 29 CMCP as to their potential impact, benefit and risk. The following is a brief summary of each assessment for each proposed improvement category of the SR 29 CMCP improvement package. Additionally, Figure 46 shows 1 meter (3.28 feet), and 1.75 meter (5.75 feet) Sea-Level Rise vulnerability maps developed using Caltrans District 4 Climate Change Vulnerability web-based mapping tool.

Figure 46: Storm Surge (Sea-Level Rise) Vulnerability Map



As shown in Figure 46, a short segment of SR 29 across the Napa River, as well as a short segment of SR 121 (Imola Avenue) across the Napa River, are vulnerable to 1 meter (3.28 feet) sea-level rise. Risks include increased lateral forces on the bridge structure and erosion due to increased sea levels. The mapping tool was also used to review flooding and wildfire vulnerability, but no results were found in the immediate SR 29 corridor study area. However, north of and south of the SR 29 corridor study area, wildfire and flooding risks, associated with climate change, demonstrate the importance of SR 29 as an evacuation route for a large geographic area. SR 29, between Napa and Vallejo, is a lifeline corridor providing direct connectivity between major east-west corridors like Interstate 80 and State Route 12. This connection is significant especially considering the climate vulnerability or State Route 37. Figure 47 below shows these risk areas in relation to the study corridor.

Figure 47: Wildfire and Flood Risk Vulnerability Map



Climate Change Assessment by Improvement Category Proposed in the Mobility Plan

Parallel Capacity Improvements

Temperature – In order to minimize potential increases in ambient temperatures, street trees should be planted as part of these alignments to provide shade, reduce heat island effect, and reduce rate of pavement deterioration caused by increased heat.

Precipitation – Bioswales and water-efficient plantings should be implemented along new streets in order to minimize irrigation needs and offset potential increase in runoff as a result of increased impervious surfaces.

Sea Level Rise – The construction of parallel facilities, particularly on the east side of SR 29, would provide local street connections in the event roadways closer to the Napa River were to become compromised during a flood event.

Wildfires –New parallel roadways should be considered for inclusion in local and regional emergency plans in case of a regional evacuation event and aid local and regional emergency response.

State Route 29 Multimodal Improvements

Temperature – With increases in temperatures, and due to the multimodal facilities' proximity to urban elements like SR 29, parking lots, and buildings, shade trees, water fountains, and shaded rest areas should be considered along the proposed bikeways to minimize heat island effects.

Precipitation – Impervious materials, bioswales and water-efficient plantings should be implemented along new facilities in order to minimize irrigation needs and offset potential increase in runoff as a result of increased paved surfaces.

Sea-Level Rise - The construction of multimodal options along the SR 29 corridor would provide other modes of travel in the event roadways closer to the Napa River were to become compromised during a flood event.

Wildfires –The proposed on-street bikeways should be designed to remain useable as shoulders in case of a regional evacuation event and aid local and regional emergency response.

Intersection Improvements

Temperature –In order to minimize potential increases to ambient temperatures, street trees should be planted as part of these facilities to provide shade, reduce heat island effect, and reduce rate of pavement deterioration caused by increased heat.

Precipitation – Bioswales and water-efficient plantings should be implemented around new intersections in order to minimize irrigation needs and offset potential increase in runoff as a result of increased impervious surfaces.

Sea Level Rise – The intersection improvements, particularly the grade-separated intersections, will need to consider potential future flooding events from sea-level rise. However, these are not anticipated to be at risk themselves for flooding.

Wildfires –Roundabout intersection control should be considered the more resilient option in case of a power-loss event as roundabouts remain able to serve traffic at full capacity without power, aiding potential regional evacuation events and reducing local and regional emergency response times.

Shared Use Paths

Temperature – With increases in temperatures, and due to the multimodal facilities' proximity to urban elements like SR 29, parking lots, and buildings, shade trees, water fountains, and shaded rest areas should be considered along the proposed bikeways to minimize heat island effects.

Precipitation – Impervious materials, bioswales and water-efficient plantings should be implemented along new facilities in order to minimize irrigation needs and offset potential increase in runoff as a result of increased paved surfaces.

Sea-Level Rise – Redundancy in the shared use path / trail network should be developed in case of flooding from the Napa River as a result of sea-level rise. Implementing parallel facilities will ensure continued connectivity in the case a portion of a route is compromised.

Wildfires – New trails should be constructed at sufficient width that they may be utilized by emergency personnel if needed to respond to a wildfire event.

Bus Improvements

Temperature – New bus stops should be designed to include shade whenever possible, and where feasible, include a bus shelter. In the vicinity of bus stops, shade trees should be considered to lower ambient temperatures exacerbated by urban heat island effects.

Precipitation – Impervious materials, bioswales and water-efficient plantings should be implemented as reasonable to minimize irrigation needs and rapture runoff.

Sea-Level Rise – Not applicable

Wildfires – Not applicable

Integrated Corridor Management

Temperature – ICM can be utilized to communicate heat wave events to travelers along the corridor and provide information directing vulnerable users to nearby cooling centers.

Precipitation – ICM can be utilized to issue public service announcements related to inclement weather, drought, or flood events.

Sea-Level Rise - ICM can be utilized to issue public service announcements related to any area roadway closures or other flood-related emergencies and redirect traffic to alternate routes.

Wildfires – ICM can be utilized to issue public service announcements related to any area roadway closures or other fire-related emergencies and redirect traffic to alternate routes.

Plan/Policy Consistency

In sorting and selecting a preferred corridor concept for the SR 29 CMCP, both a quantitative and qualitative measures were considered and used. The Benefit/Cost Analysis quantified and compared metrics associated with traffic operations, safety, emissions and cost characteristics to help narrow and focus the selection to the most beneficial improvements to corridor circulation and safety. In addition to these quantitative metrics, qualitative measures, although often less objective, can provide further insights into the desirability and functionality of proposed improvements. Per the Smart Mobility Framework process, the following qualitative factors were also considered when evaluating and selecting the preferred alternative. These factors included:

- Plan Consistency (namely, SR 29 Gateway Plan, Regional Transportation Plan and local agencies' General Plan Circulation Elements)

- Policy Consistency (NVTA, Caltrans and local agencies)
- Environmental/Institutional Sensitivity (per the environmental screen analysis)
- Community Acceptance (based on the community engagement process)
- Social Equity (consideration of low income and minority population concentrations relative to the location of anticipated improvement impacts and benefits)

Plan Consistency

An assessment was performed as to the general consistency of the corridor alternatives relative to the following plan documents emanating from the involved agencies; Caltrans SR 29 Route Concept Report, NVTA Regional Transportation Plan and the Napa County, City of American Canyon and City of Napa General Plan Circulation Elements.

With the exception of one improvement concept, the proposed SR 29 CMCP was found consistent with the plan documents from the involved agencies. The City of American Canyon is supportive of SR 29 multimodal improvements of the SR 29 CMCP which maintains SR 29 as a four-lane arterial through the City of American Canyon. These multimodal improvements are consistent with the City's General Plan Circulation Element. The City's General Plan envisions SR 29 ultimately widened to six lanes.

Policy Consistency

Recognizing the importance of SR 29 to both regional and local circulation, the involved agencies have been and are aligned in establishing policies that further the improvement of the corridor to enhance traffic operations, capacity, safety and multimodal opportunities and reduce environmental impacts.

Similar to the assessment made regarding Plan Consistency, with the exception of the SR 29 Multimodal Improvements, the SR 29 CMCP was found consistent with all policies established by the involved agencies. In the case of the SR 29 Multimodal Improvements, the concept is not in opposition to adopted City of American Canyon policies. The trail improvements along SR 29 remain consistent with City of American Canyon policy.

Community Support

The process of involving and gaining community support began long before the initiation of this SR 29 CMCP. Through local planning efforts to address circulation in the cities' and County's General Plan Circulation Elements and through previous studies, like the SR 29 Gateway Plan, the communities have been invited and encouraged to participate in identifying corridor solutions for State Route 29. Based on feedback received, some in the community support vehicular capacity enhancements in addition to enhanced and expanded multimodal opportunities. Communities of the partner agencies are supportive of the proposed improvements and understand that additional improvement needs beyond those identified in the SR 29 CMCP will remain, subject to funding availability, prioritization, and successful competitive grant pursuits over the next 20 years and beyond.

Emerging Technologies Assessment

Innovation is a touchstone of our advancing lifestyles to live more efficient and connected lives. New technologies continue to emerge, narrowing the privacy line in the name of "big data". As a part of this Corridor Plan, Integrated Corridor Management or ICM is proposed for implementation to achieve "inter-connected streets" through:

- Active freeway management
- Active Transportation Demand Management Strategies
- Active Transit Management
- Active Arterial Management
- Traveler information Systems in the Corridor

As technologies continue to advance for autonomous vehicles, the need to obtain a centralized Traffic Management Center (TMC), which is proposed in the Corridor Plan, becomes critical to actively manage in "real-time" all multimodal travel within the corridor. With a TMC planned in the future, as technologies advance, when a TMC is available, such a facility in this key regional travel corridor can actively manage in "real-time" the following:

- Facilitate Multimodal Operations, including:
    - Real-time bus arrival information
    - Improve bus on-time performance through signal pre-emption
- Facilitate Real-time Incident Management
- Facilitate VTI (vehicle to infrastructure communications as autonomous vehicles advance) to actively manage corridor travel flow
- Collect travel data to create a historical database to actively manage hourly, daily, weekly and seasonal corridor travel fluctuations.

As new technologies continue to emerge at an astonishing pace, it is difficult to forecast the advanced mobility options and opportunities that will emerge for transportation users on the SR 29 corridor. The SR 29 CMCP acknowledges that such new technologies will come and anticipates, with a planned TMC, to evaluate their value, utility, application and timing for appropriate integration. With this forward thinking, travel demand/ridership can be better managed, congestion and air quality impacts minimized and economic benefits maximized.

7-Benefit Monetization Assessment

Benefits were monetized based on the societal cost information from a either the Caltrans 2018 Economic Parameters or the Caltrans 2016 Economic Parameters if updated 2018 values were not available. The latter information informs the Caltrans Cal-B/C analysis tool. All quantified benefits were annualized and projected to reflect a 20-year design year condition (i.e., life-cycle costs). These monetized benefits are then combined with currently available planning level improvement cost opinions (described below) to yield a holistic benefit-cost estimate for each project alternative.

The Caltrans 2018 Economic Parameters societal cost of time is provided below. The weighted average is based on the 7% truck percentage assumption used as part of this study. The weighted average of societal cost will be applied to both the reduction in delay and buffer time as follows:

- Automobile: $14.20 per hour /person
- Truck: $32.25 per hour /vehicle
- Weighted Average: $15.46 per hour / vehicle

The Caltrans 2016 Economic Parameters societal costs by collision severity is as follows:

- Fatal Accident: $10,800,000 per accident
- Injury Accident: $148,800 per accident
- PDO Accident: $9,700 per accident

Improvement Costs

Costs associated with service frequency improvement, shown in Table 28, include:

- 40' Electric Bus = $1.1 Million per bus
- Operational costs: $48 per service hour
    - Peak Period Operation Only (6 hrs. during weekdays)

Table 28: Transit Service Frequency Improvements Costs

Improvement	Cost
Operational Costs (Annual)	$374,400
Additional Bus Fleet	$2,200,000

Table 29 displays the planning-level cost estimates of improvements recommended in the plan. Cost estimates were sourced from previous planning documents, reviewed and adjusted to be consistent with existing costs, where possible. Where not possible, preliminary planning-level costs were estimated by project team planning and engineering staff.

Table 29: Total Rounded Improvement Costs

Improvement	Total Cost	Life-Cycle Cost
Parallel Capacity Improvements		
South Kelly Road/Newell	$68,680,000	$75,000,000
Devlin Road	Programmed	-
Intersection Improvements		
Soscol Junction	$60,000,000	$65,000,000
Carneros Junction	$2,700,000	$3,000,000
SR 12/Airport/SR 29	$144,400,000	$152,000,000
American Canyon Road/SR 29 Pedestrian Crossing	$22,500,000	$24,000,000
SR 29 Multimodal Improvements		
Segment 1	$16,300,000	$17,600,000
Segment 2	$1,000,000	$1,100,000
Segment 3	$15,300,000	$15,300,000
Bus Improvements		
Queue Jumps/Part-Time Use of Shoulder	$3,200,000	$3,400,000
Transit Signal Priority	$537,000	$565,000
Service Frequency Increase (Annual)	$374,000	$7,500,000
Additional Bus Fleet	$2,200,000	$2,400,000
Integrated Corridor Management Improvements		
Transportation Management Center	$25,000	$30,000
Variable Message Signage	$840,000	$880,000
Traffic Monitoring Detectors	$427,000	$450,000
Trailblazer Signage	$663,000	$700,000
CCTVs	$183,000	$190,000
Communications equipment	$2,400,000	$2,500,000
Shared-Use Paths		
San Francisco Bay Trail gap closure	$18,700,000	$23,400,000
Napa Valley Vine Trail gap closure	$7,400,000	$9,300,000
Total Rounded Improvement Costs	$367,829,000	$404,515,000

Note: Life-cycle costs based on 5% maintenance estimate over 20 years for all projects except transit service increase and Class I trails. Class I trails assume $12,000 / miles maintenance cost.

Comprehensive Benefit-Cost Assessment

Monetized Bicycle Mode Shift Benefits

The SR 29 study area encompasses portions of both Napa and Solano Counties. Because the NCHRP 552 methodology takes into account bicycle commute mode share and the percentage of adult versus children comprising the population, the analysis presented herein was completed separately for the two portions of the study area. Table 30 provides the total estimated benefit associated with the bicycle improvements proposed throughout the entire study area, which range from approximately $7 million at the low end and $10.4 million at the high end. Appendix F presents the induced bicycle demand benefit by Napa County and Solano County portions of the study area.

Table 30: Bicycle Mode Shift Benefits – Total Study Area

Bicycle Facility Benefits	
Annual Mobility Benefit	
Class I Shared Use Path	$3,364,579
Annual Health Benefit	
High Estimate	$286,976
Moderate Estimate	$203,520
Low Estimate	$171,520
Annual Recreation Benefit	
High Estimate	$6,741,550
Moderate Estimate	$4,361,750
Low Estimate	$3,449,250
Annual Decreased Auto Use Benefit	$17,384
Total Annual Benefit	
High Estimate	$10,410,489
Moderate Estimate	$7,947,233
Low Estimate	$7,002,733

Annualized benefits were adjusted to account for a 20-year life cycle. Assuming a 20-year life span, and incorporating a four percent discount rate or P/A Factor to reflect the present worth of future dollars, the 20 year adjusted benefit for the study area is estimated to total $145.2 million, shown in Table 31.

Table 31: Bicycle Mode Shift Life-Cycle Benefits

Total Annualized Benefit	2020 Benefit	Expected Life (yr)	20 Year Adjusted Benefit
Bicycle Mode Shift	$10,410,489	20	$145,225,683

Notes:

20 year life cycle cost estimated using planning-level cost estimates include 20 year operations and maintenance costs associated with Class I shared use paths

20 year benefit estimated by multiplying the annualized benefit by a factor of 20 and applying a 4% year over year discount rate to account for the present worth of future dollars

Air quality benefits associated with bicycle mode shift were also quantified, shown in Table 34 below, based on an annualized reduction in VMT. The estimated reduction in VMT associated with projected bicycle mode shift was utilized as an input in the air quality analysis, where the reduction in emissions and pollutants correlated with the reduction in VMT was monetized.

Table 32: Air Quality Benefits – Bicycle Mode Shift

Emissions Reduction	Short Tons		Value (mil. $)	
	Total Over 20 Years	Average Annual	Total Over 20 Years	Average Annual
CO Emissions Saved	10.84134	0.54207	$506	$25
CO2 Emissions Saved	3,468.84983	173.44249	$98,170	$4,908
NOX Emissions Saved	0.82878	0.04144	$9,326	$466
PM10 + PM2.5 Emissions Saved	0.03232	0.00162	$1,450	$72
SOX Emissions Saved	0.03424	0.00171	$1,441	$72
VOC Emissions Saved	0.41034	0.02052	$314	$16
Total Monetized Reduction Benefit			$111,207	$5,560

Monetized Transit Ridership Benefits

The recommended service frequency improvements and increases in transit ridership are associated with an annualized reduction in VMT. The estimated reduction in VMT associated with projected transit ridership increases was utilized as an input in the air quality analysis, where the reduction in emissions and pollutants correlated with the reduction in VMT was monetized. The result of this analysis is presented in Table 33.

Table 33: Air Quality Benefits - Transit Improvements

Emissions Reduction	Short Tons		Value (mil. $)	
	Total Over 20 Years	Average Annual	Total Over 20 Years	Average Annual
CO Emissions Saved	27.83587	1.39179	$1,299	$65
CO2 Emissions Saved	8,906.50632	445.32532	$252,059	$12,603
NOX Emissions Saved	2.12795	0.10640	$23,944	$1,197
PM10 + PM2.5 Emissions Saved	0.08298	0.00415	$3,723	$186
SOX Emissions Saved	0.08792	0.00440	$3,699	$185
VOC Emissions Saved	1.05358	0.05268	$806	$40
Total Monetized Reduction Benefit			$285,530	$14,276

Monetized Vehicle Operations Benefits

Monetization expresses the amount of savings society directly and indirectly experiences. This monetization has been annualized and is based on 208 weekdays over one year. Table 34 shows the monetized delay per year and annualized for a 20-year life cycle.

Table 34: Delay and Buffer Time Index Benefit

Scenario	Monetized Annual Delay Reduction	Monetized Life-Cycle Delay Reduction
AM Peak Period	$7,447,186	$103,887,803
PM Peak Period	$18,688,562	$260,704,304
Combined	$26,135,748	$364,592,107

The results presented above reflect delay reduction for a five-hour peak period (two hour AM peak period and three hour PM peak period). However, congestion on SR 29 often extends even beyond the peak periods monetized above. Therefore, this delay reduction benefit is conservative since it does not account for delay benefits that occur outside the single-hour peak commute times. Additionally, it does not account for delay benefits during weekends.

The recommended vehicle operations improvements are associated air quality benefits, where the reduction in emissions and pollutants was monetized. The result of this analysis is presented in Table 33.

Table 35: Air Quality Benefits – Vehicle Operations Improvements

	Short Tons		Value (mil. $)	
Emissions Reduction	Total Over 20 Years	Average Annual	Total Over 20 Years	Average Annual
CO Emissions Saved	288.79632	14.43982	$14,539	$727
CO2 Emissions Saved	140,694.75042	7,034.73752	$4,107,647	$205,382
NOX Emissions Saved	64.51040	3.22552	$590,092	$29,505
PM10 + PM2.5 Emissions Saved	2.76002	0.13800	$128,196	$6,410
SOX Emissions Saved	1.45560	0.07278	$66,396	$3,320
VOC Emissions Saved	26.61383	1.33069	$21,551	$1,078
Total Monetized Reduction Benefit			$4,928,421	$246,422

Monetized Safety Benefits

Vehicular and bicycle/pedestrian related collisions and improvements identified to improve safety were summarized for input into the HSIP analyzer to compute monetized benefits. The safety benefit calculation worksheets that informs this analysis are provided in Appendix H. The basis for this analysis is the Caltrans 2016 Economic Parameters. Once monetized, the estimate was expanded to reflect the design life horizon year. As shown in Table 36, the expected benefit of the identified countermeasures is $109,422,454.

Table 36: Safety Benefit Summary

Countermeasure	Benefit
R37 - Install Shared-Use Path – SR 29: SR 37 to Napa Junction Road	$13,895,040
R37 - Install Shared-Use Path– SR 29: Napa Junction Road to Paoli Loop Vine Trail*	N/A*
R36 - Install Bike Lanes SR 29:South Kelly Road to SR 12/Airport	$2,900,661
IC - Convert Signalized Intersection at SR 29/SR 221 (Soscol Junction) to Grade-Separated Interchange with Roundabouts	$32,873,551
S18 - Convert Signalized Intersection to Roundabout Devlin Rd at Airport Blvd	$4,519,821
IC - Convert Signalized Intersection at SR 29/Airport Blvd to Grade-Separated Interchange with Roundabouts	$34,348,581
S18 - Convert Signalized Intersection to Roundabout at S Kelly Rd/SR 12	$20,884,800
Total Project Area Expected Benefit	**$109,422,454**

**No benefit reported because no pedestrian and bicycle collisions reported near countermeasure area.*

Monetized ICM Benefits

The ICM system provides information to drivers to change travel patterns providing additional parallel capacity to SR 29. This benefits the drivers by reducing the amount of queues, delay, and emissions. The decrease in delay is an attribute that can be monetized to show how drivers not only benefit from a time perspective but also monetarily. The monetary benefit comes from less time spent driving which reduces fuel consumption, greenhouse gas emissions, and loss time. The monetized benefits are presented in Table 37.

Table 37: ICM Benefits Summary

Scenario	Monetized Annual Delay Reduction	Monetized Life-Cycle Delay Reduction
AM Peak Period	$1,228,894	$24,577,890
PM Peak Period	$2,522,322	$50,446,422
Combined	$3,751,216	$75,024,312

Notes: 1. Calculation based on two incidents per year.

As presented in Table 37, the total life cycle benefit if two incidents occurred during the two hour AM peak period is approximately $24.6 million and approximately $50.5 million during the three hour PM peak period over 20 years. Combined, over the five hour peak period, $75 million in life-cycle benefits are anticipated.

If the northbound direction of SR 29 experience a reduction in capacity from two lanes to one lane between Green Island Road and Airport Boulevard/SR twice a year, the ICM would reduce travel times in the AM peak hour by approximately 9.1 minutes per incident and save drivers approximately $12.3 million in delay costs. If the incident occurred in the PM peak hour, the travel time savings would be 11.8 minutes per incident and approximately $16.8 million in delay costs over 20 years.

Monetized Air Quality Benefits

Table 38 displays the monetized air quality benefits related to operational, bicycle and transit improvements, as well as the total air quality benefit resulting from all emissions and pollutant reduction.

Table 38: Air Quality Benefits Summary

Emissions Reduction	Total Over 20 Years	Average Annual
Total Monetized Emissions Reduction – Operational Benefits	$4,928,421	$246,422
Total Monetized Emissions Reduction – Bike-Related Benefits	$111,207	$5,560
Total Monetized Emissions Reduction Benefit – Transit Benefits	$285,530	$14,276
Total Monetized Air Quality Benefits	$5,325,158	$266,258

Overall Benefit-Cost Summary

Project Benefits

A summary of the quantitative benefits that could be monetized are presented in Table 39.

Table 39: Monetized Benefits Summary

Benefit Type	Annual Benefit	Life Cycle Benefit (20 Yrs.)
Bicycle Mode Shift Benefit *(Except Air Quality)*	$10,410,489	$145,225,683
Transit Ridership Benefit	Included in Air Quality Benefit	Included in Air Quality Benefit
Operational Delay Benefit *(Except Air Quality)*	$26,135,748	$364,592,107
Safety Benefit	$5,471,123	$109,422,454
ICM Delay Benefit	$3,751,216	$75,024,312
Air Quality/ Emissions Benefit	$266,258	$5,325,158
Total Benefit	**$46,034,834**	**$699,589,714**

Total Benefit-Cost

Table 40 displays the comprehensive benefit cost for all improvements proposed within the study corridor. When monetized to a 20-Year life cycle, the benefit-cost of the proposed SR 29 CMCP multimodal improvement package is 1.73.

Table 40: Comprehensive Benefit-Cost Summary

Total Project Life-Cycle Cost	Life Cycle Benefit (20 Yrs.)
$404,515,000	$699,589,714
Total B/C	**1.73**

8 - Preferred Corridor Plan

The culmination of the process for the SR 29 CMCP is to identify a comprehensive and systemic Corridor Plan that achieves the corridor objective to:

".....form a comprehensive multimodal package of prioritized improvements that will serve to systematically guide future SR 29 corridor programming decisions over a 20-year timeframe based on available funding."

To achieve this objective, consistent with the chapters of this Plan:

- A performance-based analysis based on the Smart Mobility Framework was applied,
- The Public was engaged for their input throughout the process,
- Existing Conditions to establish a baseline were evaluated,
- Corridor Solutions from prior planning efforts identified, and
- Performance Assessments of those corridor solutions conducted.

Following the collation of the high performing corridor solutions, the next challenge was to systemically integrate these corridor solutions into a priority schedule based on anticipated need and funding through the plan year 2040.

The following Preferred Corridor Plan, which includes the implementation phasing of the prioritized multimodal improvement package and funding, is the outcome achieved from the input from the Public and output from the technical information that has been performed consistent with the Smart Mobility Framework and applicable State and Federal grant program guidelines.

The Preferred Plan

Based on the input from the extensive public outreach and the comprehensive performance assessments conducted, the proposed Corridor Solutions identified were reduced in number and prioritized to correspond with a phased implementation plan, so systemically, the most critical multimodal improvements are met over time and as likely funding becomes available. The overall Corridor Plan improvements and services are identified as follows with the physical corridor improvements shown in Figure 48, Figure 49, and Figure 50.

Figure 48: Preferred Plan: Imola Avenue to Soscol Junction

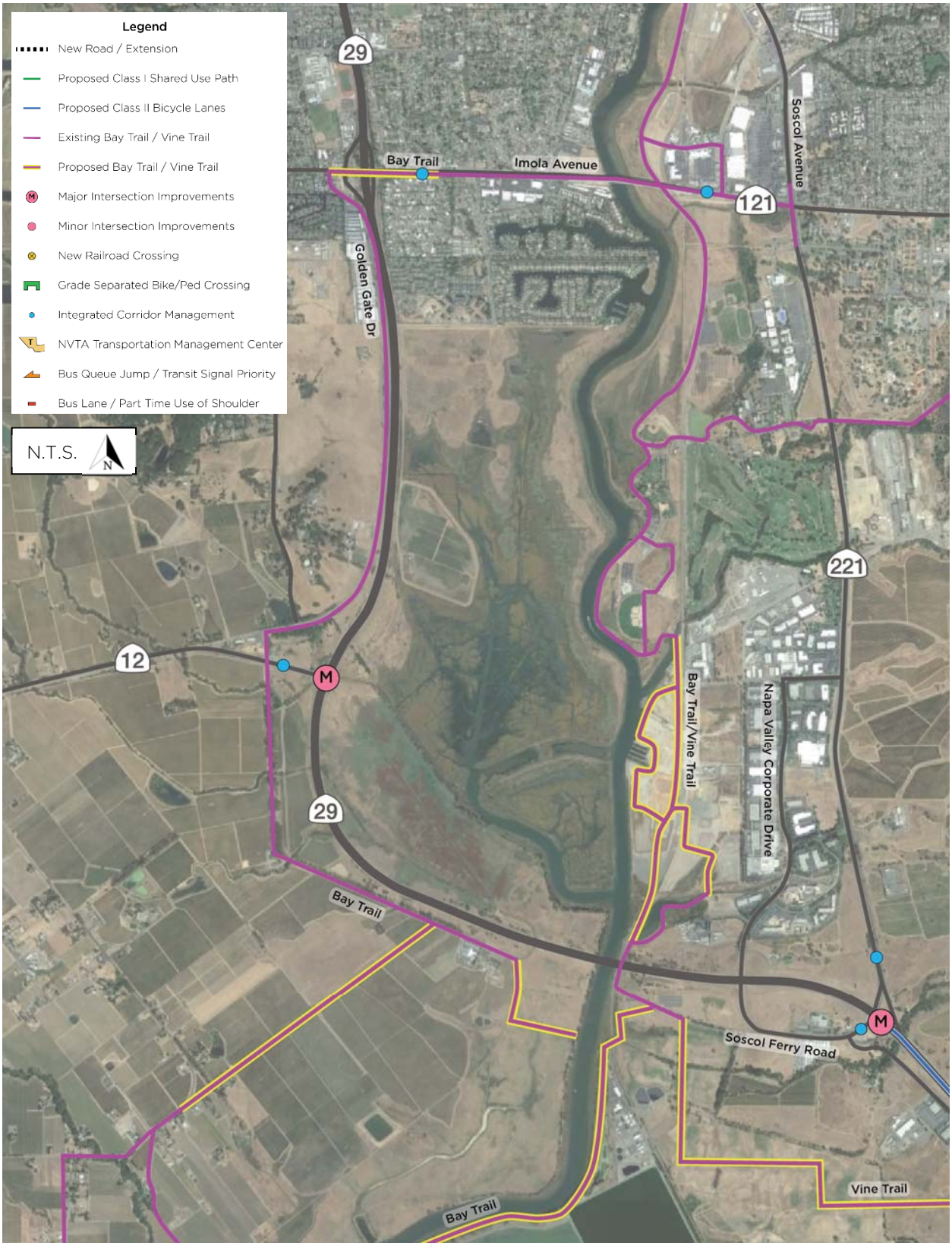


Figure 49: Preferred Plan: Soscol Junction to Green Island Road

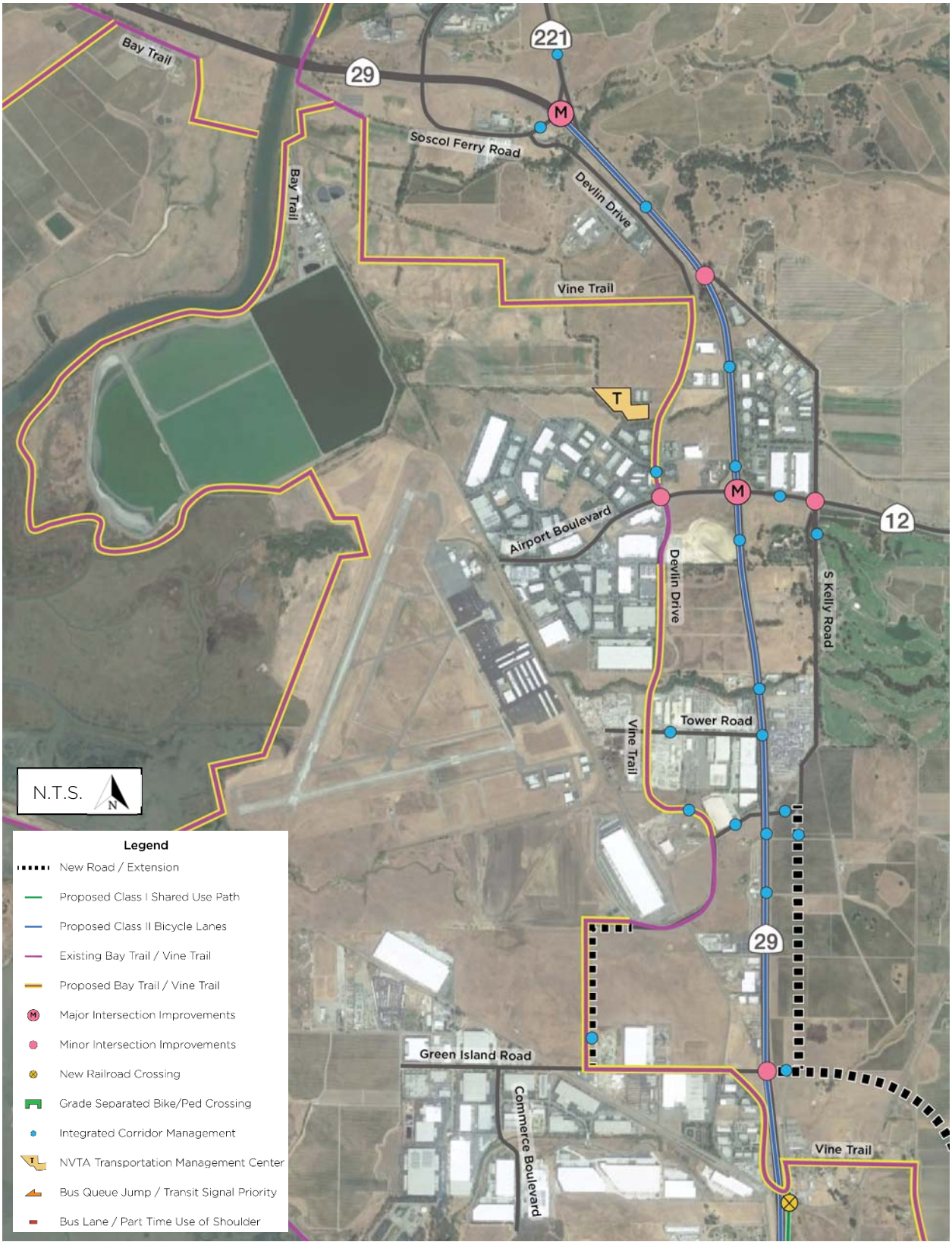
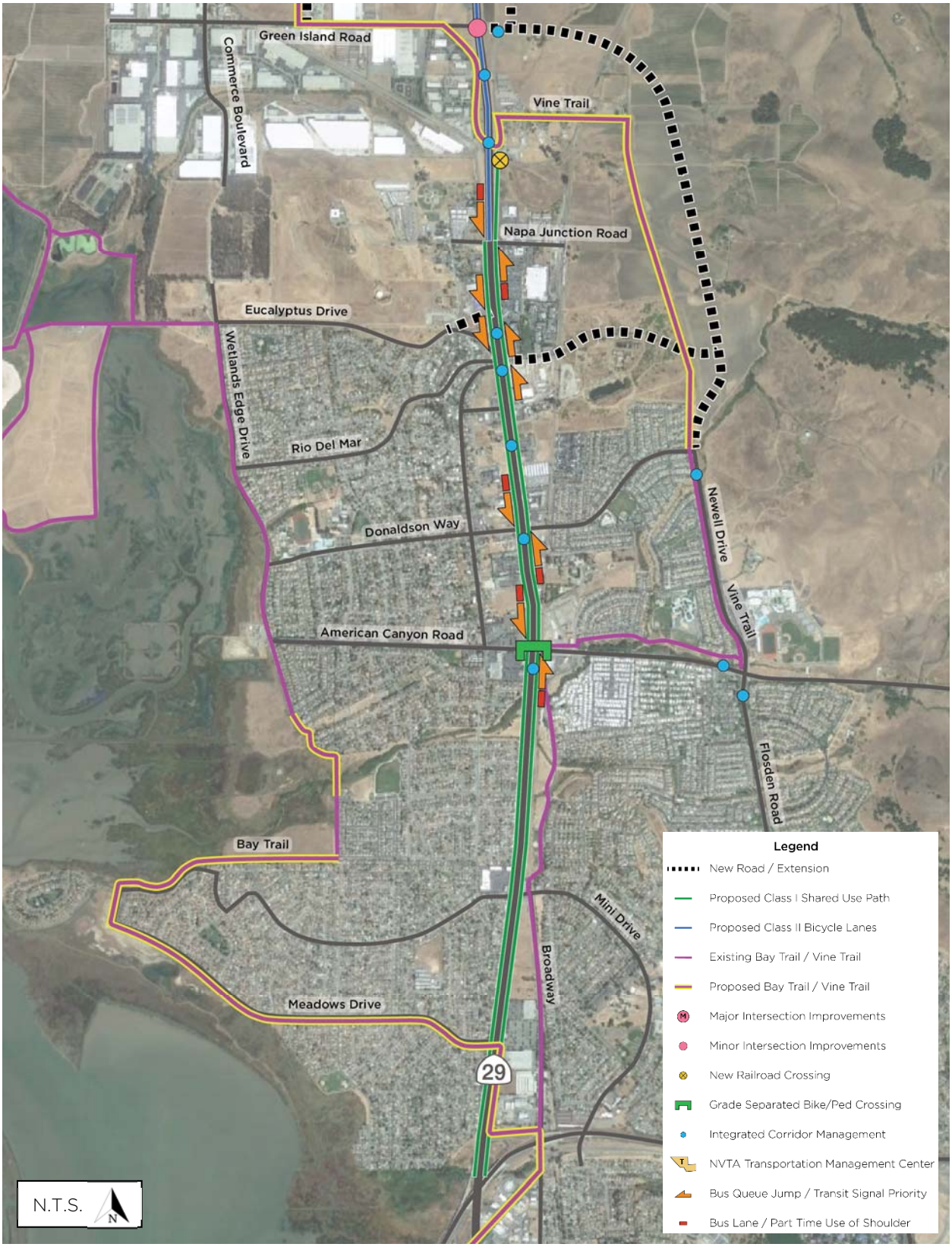


Figure 50: Preferred Plan: Green Island Road to State Route 37



Parallel Capacity Improvements

- Devlin Road
- South Kelly Road/Newell Drive

SR 29 Multimodal Improvements

- SR 37 to Napa Junction Road
- Napa Junction Road to Napa Valley Vine Trail
- South Kelly Road to Soscol Junction

Intersection Improvements

- Carneros Junction
- Airport Boulevard/SR 12/SR 29
- Soscol Junction
- American Canyon Road Grade-Separated Pedestrian Crossing

Shared Use Paths

- Napa Valley Vine Trail
- San Francisco Bay Trail

Bus Improvements

- Bus Stop Changes
- Part Time Use of Shoulder
- 11X Bus Service
- New Route 29 Bus Service
- Queue Jump
- Transit Signal Priority
- NVTA Maintenance Facility/ Transportation Management Center

Integrated Corridor Management

- Variable Message Signs
- Traffic Monitoring Detectors
- Trailblazer Signs
- CCTV Cameras

Of these above Corridor Plan improvements, several improvements, including the final extension of Devlin Road to Paoli Loop and the NVTA Maintenance Facility have already received funding and are in the process of being designed and/or constructed. Although these projects are both part of the comprehensive and systematic Corridor Plan, no further programming is necessary for future funding and construction, which is the focus of the following section – Implementation Plan.

Implementation Plan

In order to facilitate implementation of the SR 29 CMCP preferred package of multimodal improvements, an implementation opportunity matrix was developed based on the SCCP grant application primary, secondary, and deliverability criteria. The performance the SR 29 CMCP preferred plan has been quantified in the preceding sections of this report. In this section, the relative performance of the individual improvements within the preferred package are presented in order to differentiate the relative competitiveness of component projects.

The scoring was prepared on a scale of 0 to 2, where 0 presents the lowest opportunity to score well against a given criteria and 2 presents the highest opportunity. Projects scored with a 1 may require additional analysis, but demonstrate potential to score well against a given criteria.

Table 41 displays the results of the implementation prioritization assessment. As shown, the highest scoring project is the Soscol Junction improvement, due to strong performance against several criteria, and top performance against deliverability criteria. The next two top candidate projects are the bus transit improvements along SR 29 and the Airport Boulevard / SR 12 / SR 29 intersection. However, this prioritization matrix does not consider the compounding benefit of implementing several projects at once, such as the SR 29 multimodal improvements and integrated corridor management strategies.

Further detailed analysis into the combined benefits of combined projects should be prepared in order to maximize the possible score of an upcoming SCCP grant application by combining components of the preferred SR 29 CMCP package, as the deliverability criteria of component projects are increased through further planning and design phases.

Table 41: SR 29 CMCP Implementation & Prioritization Matrix

	Parallel Capacity Improvements	Devlin Road	South Kelly Road / Newell Drive	SR 29 Multimodal Improvements	SR 37 to Napa Junction Road	Napa Junction Road to Paoli Loop	Napa Junction Road to Soscol Junction	Intersection Improvements	Carneros Junction	Airport Boulevard / SR 12 / SR 29	Soscol Junction	American Canyon Pedestrian Bridge	Shared Use Paths	Napa Valley Vine Trail	San Francisco Bay Trail	Bus Transit Improvements	Integrated Corridor Management
Congestion Reduction	6	3	3	6	2	2	2	14	2	4	4	4	4	2	2	4	2
VMT Reduction	2	1	1	3	1	1	1	1	0	0	0	1	2	1	1	1	0
Travel Time Reduction	2	1	1	0	0	0	0	6	1	2	2	1	0	0	0	1	1
Delay Reduction	2	1	1	0	0	0	0	6	1	2	2	1	0	0	0	1	1
Reduced SOV Mode Share	0	0	0	3	1	1	1	1	0	0	0	1	2	1	1	1	0
Throughput	2	1	1	9	3	3	3	9	1	3	4	1	6	3	3	3	1
Throughput for Multiple Modes	2	1	1	3	1	1	1	5	1	2	2	0	2	1	1	1	1
Vehicle Occupancy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Bicycle/Pedestrian Mode Share	0	0	0	6	2	2	2	4	0	1	2	1	4	2	2	1	0
System Reliability	4	2	2	0	0	0	0	9	2	3	3	1	0	0	0	3	3
Travel Time Reliability	2	1	1	0	0	0	0	5	1	2	2	0	0	0	0	1	2
Transit Service Performance	2	1	1	0	0	0	0	4	1	1	1	1	0	0	0	2	1
Safety	0	0	0	8	3	2	3	9	1	3	3	2	2	1	1	0	0
FSI Reduction	0	0	0	3	1	1	1	6	1	2	2	1	0	0	0	0	0
Non-Motorized Collision Reduction	0	0	0	5	2	1	2	3	0	1	1	1	2	1	1	0	0
Accessibility	4	2	2	12	4	4	4	4	0	0	2	2	4	2	2	3	0
Job Accessibility by Mode	2	1	1	6	2	2	2	2	0	0	1	1	2	1	1	1	0
Key Destination Accessibility by Mode	2	1	1	6	2	2	2	2	0	0	1	1	2	1	1	1	0
Disadvantaged Accessibility to Transit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Economic Development	4	2	2	6	2	2	2	12	2	4	4	2	4	2	2	2	2
Direct Jobs Created	2	1	1	3	1	1	1	6	1	2	2	1	2	1	1	1	1
Indirect Jobs Created	2	1	1	3	1	1	1	6	1	2	2	1	2	1	1	1	1
Air Quality & Greenhouse Gases	2	1	1	3	1	1	1	4	1	1	1	1	2	1	1	1	0
Criteria Pollutant Reduction	2	1	1	3	1	1	1	4	1	1	1	1	2	1	1	1	0
Efficient Land Use	3	1	2	7	3	3	1	2	0	0	0	2	3	2	1	2	0
Multimodal Mixed Use & Infill	2	1	1	5	2	2	1	1	0	0	0	1	2	1	1	1	0
Supports Efficient Land Development	1	0	1	2	1	1	0	1	0	0	0	1	1	1	0	1	0
Deliverability	9	5	4	9	3	3	3	19	6	4	8	1	6	3	3	5	3
Matching Funds	2	1	1	0	0	0	0	3	1	0	2	0	2	1	1	1	0
Deliverable Readiness	3	2	1	3	1	1	1	3	1	0	2	0	2	1	1	1	0
Potential for Collaboration	2	1	1	3	1	1	1	7	2	2	2	1	2	1	1	2	2
Cost Effectiveness	2	1	1	3	1	1	1	6	2	2	2	0	0	0	0	1	1
Community Impact	4	2	2	3	1	1	1	5	1	1	1	2	3	2	1	1	1
Community Support	4	2	2	3	1	1	1	5	1	1	1	2	3	2	1	1	1
Disadvantaged Community Impacts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overall Score	38	19	19	63	22	21	20	87	16	23	30	18	34	18	16	24	12
Overall Rank	-	7	7	-	4	5	6	-	9	**3**	**1**	8	-	8	9	**2**	10



CAPTI 2.0

Climate Action Plan for Transportation Infrastructure

January 2025 • Final Draft



"As California faces more extreme heat and severe wildfires, our way of life is under threat. We have the chance to reduce toxic emissions and improve public health — and we need to act fast and effectively."

Gavin Newsom
Governor, State of California



"CalSTA's Climate Action Plan for Transportation Infrastructure delivers on our 'Core Four' priorities of safety, climate action, equity, and economic prosperity. By integrating a wide and diverse array of perspectives, CAPTI is designed to be a holistic framework for aligning state transportation investments with the state's climate, health, and social equity goals.

Over the past three years, CAPTI implementation has shown that with the appropriate action, we can make enormously significant strides in tackling transportation emissions from infrastructure investments. California must continue to invest in mobility options that are sustainable, convenient, seamless, and affordable while also connecting our communities throughout the state. This update to CAPTI includes a commitment to ongoing initiatives as well as new ones. These actions confront longstanding inequities and focus on reducing harms and increasing benefits to all Californians, including the most vulnerable communities in our state. Over the remaining years of the Newsom administration, CalSTA and our eight departments, boards and commissions will work diligently to implement these new actions to deliver lasting results for all Californians, with the intention to ensure this work lives on into the future."

Toks Omishakin
Secretary, California State Transportation Agency (CalSTA)

Acknowledgments

The California State Transportation Agency (CalSTA) extends our sincere appreciation to the dedicated staff at lead agencies and supporting agencies for their work on the update to CAPTI.

CalSTA staff compiled this report with input from the lead agency staff and stakeholders. Additionally, we express deep gratitude to all our local and regional partners and stakeholders whose thoughtful comments, feedback, and expertise helped to shape and ultimately improve this Action Plan.







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Introduction

As the largest contributor of California's GHG emissions — accounting for more than half of all emissions — the transportation sector must do more to tackle this issue head-on. The climate crisis directly impacts the health and safety of all Californians and disproportionately affects the most vulnerable. With climate change exacerbating the frequency and severity of natural disasters — from extreme heat and drought to unprecedented storms and wildfires — we need to prepare and adapt our transportation system to withstand, respond to, and recover quickly from these extreme events.

As California works towards achieving 100% of in-state sales of new passenger cars and light duty trucks to be zero-emission by 2035, we know that internal combustion engine (ICE) vehicles sold prior to 2035 will remain on California roads in high numbers for decades to come. Reducing GHG emissions from the transportation sector goes beyond phasing out combustion technology and producing cleaner fuels. Reducing the miles people need to drive will play a critical role in reducing the overall transportation energy demand. Moreover, overall increases in driving and vehicle miles traveled (VMT) will continue to cause impacts on the road network and state highway system, which result in significant costs to the state. Consequently, CAPTI responds to the Governor's call to action in Executive Order (EO) N-19-19 by outlining strategies and actions that will advance more sustainable and healthy modes of transportation, such as walking, biking, transit, and rail, as well as accelerate the transition to zero-emission vehicle (ZEV) technology.

Over the past three years, CAPTI implementation has shown that with the appropriate action, we can make huge strides in tackling transportation emissions from infrastructure investments. A study conducted by the Mineta Transportation Institute (MTI) at San Jose State University estimates that discretionary transportation infrastructure investments made by the State of California now generate only 1/5th the amount of GHG emissions across the portfolio of funding programs as compared to investments made during prior administrations. All four programs that previously funded VMT increasing components saw a decrease in the amount of VMT generated after CAPTI adoption compared to the previous two cycles. Notably, two of the four programs are now VMT neutral or VMT decreasing.

Other key successes by CAPTI include:

- All $533 million dollars of Cycle 3 Solutions for Congestion Corridors (SCCP) program investments went to multi-modal projects throughout the state.
- A significant increase in zero-emission and active transportation components of freight projects funded in the Trade Corridor Enhancement Program (TCEP) in Cycle 3.
- The launch of the interagency Transportation Equity Advisory Committee (EAC) will give communities a platform to share their input as the State works to improve transportation access, environmental impact, and economic opportunities.
- The establishment of the Reconnecting Communities: Highways to Boulevard Program (RC:H2B) to transform underutilized transportation infrastructure in historically underserved communities.
- The release of Caltrans Strategic Investment Systems (CSIS) to guide the evaluation and prioritization of transportation infrastructure projects in alignment with CAPTI.

Although we have made great strides, we know that there is still a long road ahead for implementation to meet our state climate goals. The 2022 California Air Resources Board's (CARB) Scoping Plan for Achieving Carbon Neutrality calls for a 25% reduction in VMT by 2035 compared to 2019 levels. VMT reduction will play a key role in reducing the overall transportation energy demand and achieving the state's climate goals. Driving alone with no passengers remains the primary mode of travel in California amounting to 75% of the mode share for daily commutes. This CAPTI update aims to build upon our past successes, and further implement the CAPTI framework.



Executive Order N-19-19 and N-79-20

CAPTI builds on executive orders signed by Governor Gavin Newsom in 2019 and 2020 targeted at reducing GHG emissions in transportation, which account for more than 40% of all polluting emissions, to reach the state's ambitious climate goals.

- EO N-19-19 directs CalSTA to leverage discretionary state transportation funds to reduce GHG emissions in the transportation sector and adapt to climate change.
- EO N-79-20 reaffirms the state's commitment to implementing EO N-19-19, and sets a date no later than July 15, 2021, for CalSTA to "identify near term actions, and investment strategies, to improve clean transportation, sustainable freight and transit options, while continuing a 'fix-it-first' approach to our transportation system."



Updating the Climate Action Plan for Transportation Infrastructure (CAPTI)

Process

Since the adoption of CAPTI in 2021, CalSTA reported on its implementation progress with the release of two annual reports and one study by MTI.

With the release of the first CAPTI Annual Progress Report in January 2022, CalSTA reported over 88% of the original 34 actions were complete or underway.

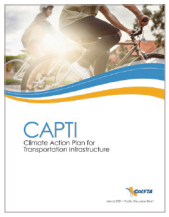
CalSTA finalized its CAPTI Second Annual Progress Report in January 2024, after releasing a draft for public feedback in November 2023. This report detailed how, in only two years since the adoption of CAPTI, California nearly completed all of the actions outlined in the original plan to align the state's transportation funding programs with its climate goals. As of July 2024, all 34 original actions have been completed.

Throughout 2024, CalSTA conducted a public engagement process to update CAPTI strategies and actions in order to further implement the existing CAPTI framework. This included hosting three listening sessions in the spring, three public workshops in the fall, and presenting draft actions to the joint CARB-CTC-HCD board meeting in November 2024.

The four new CAPTI strategies outlined in this update were developed using feedback from listening sessions held in the spring. CalSTA used the feedback received from our stakeholders to draft a short list of potential action ideas for consideration with the support of partner agencies. These actions were then refined with stakeholder feedback from public workshops held in the fall, which were then developed into detailed draft actions and descriptions for the joint meeting. In addition, CalSTA hosted a public comment period in November to allow additional time for stakeholders to share feedback on the new draft actions. The feedback from this final round of engagement informed the release of the CAPTI update in 2025.

2021

- CalSTA adopted the final CAPTI.



2022

- The Reconnecting Communities: Highways to Boulevard (RC:H2B) program is established.
- CalSTA published the first CAPTI Annual Progress Report.

2023

- The Interagency Equity Advisory Committee (EAC) is established.
- The CTC awarded $2.2 Billion for projects in the third funding cycle of the competitive grant program established by Senate Bill 1.
- The CAPTI study with MTI is completed in December.
- CalSTA published the second CAPTI Annual Progress Report.

2024

- CalSTA held Spring Listening Sessions for ideas on updating CAPTI strategies and actions.
- CalSTA completes the original 34 CAPTI actions in July.
- Over 300 participants engaged at public workshops held in the fall.
- CalSTA shared draft CAPTI actions at the joint CARB-CTC-HCD meeting in November.
- CalSTA opened a public comment period in November for stakeholders to share feedback on the draft CAPTI actions.

2025

- CalSTA adopted the CAPTI update with new strategies and actions to further implement CAPTI's investment framework.

2021 2022 2023 2024 2025

CAPTI Vision & Scope

The vision for CAPTI is to outline a holistic framework that aligns the state's transportation infrastructure investments with the state's climate, health, and social equity goals, while also maintaining the commitment made in Senate Bill (SB) 1 (Chapter 5, Statutes of 2015) to a fix-it-first approach to transportation. This update to CAPTI will maintain the existing CAPTI framework while committing to new strategies and actions to further implement the existing CAPTI guiding principles through initiatives that the CalSTA and CalSTA departments can commit to and implement by 2026. CAPTI continues to be a key implementation component of CalSTA's commitment to its Core Four priorities of safety, equity, climate, and economic prosperity.

A continued commitment to a "fix-it-first" approach to our transportation system is fundamental to CAPTI. This ensures the continued maintenance and repair of transportation infrastructure necessary to serve communities and support the goals of the Road Repair and Accountability Act of 2017, also known as SB 1. The state must be strategic and thoughtful when expanding the existing system as we cannot afford to invest in projects that ultimately run up our long-term maintenance costs without bringing an outsized benefit to climate, health, and equity goals.

CalSTA will continue to implement CAPTI within the existing framework and goals set forward in the California Transportation Plan (CTP) 2050.

Another important contextual document for CAPTI is the 2022 Scoping Plan for Achieving Carbon Neutrality, which contains the state's strategy for achieving the 2045 GHG target and other long-term climate goals. CARB is responsible for developing and updating the Scoping Plan, in coordination with the Governor's Office, many state agencies, and stakeholders that include the public and the Environmental Justice Advisory Committee.

To reduce emissions from transportation, the Scoping Plan calls for significant reductions in VMT. A report CARB completed in 2022, pursuant to SB 150 (Chapter 646, Statutes of 2017), evaluated the state's primary measure to reduce VMT — the Sustainable Communities and Climate Protection Program (also known as SB 375 (Chapter 728, Statutes of 2008)) — and revealed that VMT continued to increase since the first report in 2018. The report recommends better aligning transportation funding programs to support implementation of projects consistent with the Sustainable Communities Strategies (SCS) adopted pursuant to SB 375. The strategies identified in CAPTI are intended to align with the objectives of the Scoping Plan, as directed within EO N-19-19.

CAPTI is …

- A holistic framework and statement of intent for aligning state transportation infrastructure investments with state climate, health, and social equity goals, built on the foundation of the "fix-it-first" approach established in SB1.
- A suite of ongoing and needed changes to state transportation planning, project scoping, programming, and mitigation activities to align with the CAPTI Investment Framework.
- A living document that can adapt, pivot, and modify approaches and actions, as needed.
- A structure to monitor and evaluate progress of the transportation sector's efforts to align with state climate, health, and equity goals.

As previously mentioned, EO N-19-19 specifically calls on CalSTA to leverage $5 billion in annual discretionary transportation infrastructure funding. The funding identified in EO N-19-19 includes the following programs:

Active Transportation Program (ATP)

Statutory Intent: To encourage increased use of active modes of transportation through investments in walking, biking, Safe Routes to Schools, and trail infrastructure projects and non-infrastructure programs.

Interregional Transportation Improvement Program (ITIP)

Statutory Intent: To improve interregional movement for people and goods across California on the state highway system and develop Intercity Passenger Rail corridors of strategic importance.

Local Partnership Program (LPP)

Statutory Intent: To provide funding to local and regional agencies with voter approved fees/taxes dedicated solely to transportation improvements to improve aging infrastructure; road conditions; active transportation; transit and rail; or health and safety benefits.

Solutions for Congested Corridors (SCCP)

Statutory Intent: To achieve a balanced set of transportation, environmental, and community access improvements within highly congested travel corridors throughout the state.

State Highway Operations & Protection Program (SHOPP)

Statutory Intent: To preserve and protect the state highway system through improvements relative to the maintenance, safety, operation, and rehabilitation of state highways and bridges that do not add a new traffic lane to the system.

Trade Corridor Enhancement Program (TCEP)

Statutory Intent: To improve infrastructure on federally designated Trade Corridors of National and Regional Significance, on the Primary Freight Network, and along other corridors that have a high volume of freight movement.

Transit & Intercity Rail Capital Program (TIRCP)

Statutory Intent: To fund transformative capital improvements that will modernize California's intercity, commuter, and urban rail systems, and bus and ferry transit systems, to significantly reduce emissions of GHGs, VMT, and congestion.

While many of these programs already have statutorily established parameters and goals that align with CAPTI, and many of these programs have made changes to further align with CAPTI, opportunities still exist to further ensure funding applicants consider climate change through changes to planning, project scoping, programming, and mitigation. This Action Plan will work within the established funding programs created under SB 1 to bolster the outcomes of the projects funded under these programs and their alignment with California's climate goals. It is important to note that while EO N-19-19, EO N-79-20, and CAPTI focus on these existing funding programs, these funds alone cannot fully meet the investment needs to achieve our state's climate change goals.



CAPTI Investment Framework

Although California's statewide transportation funding programs have different statutory directions and invest in various types of infrastructure, collectively they can help us work toward our transportation vision. Understanding that there is not a one-size-fits-all approach to achieving the needs of the state's diverse communities, realizing the outcomes outlined in the CTP 2050 requires a range of investment strategies. These guiding principles for investment will work to reduce Californians' dependence on driving, increase multimodal options for all communities, and fairly meet the state's climate goals. These programs should collectively focus on prioritizing projects that align with the following guiding principles, as applicable within their existing structure.

Guiding Principles

Within the "fix-it-first" approach and through existing funding frameworks, the state's transportation infrastructure investments should be deployed to do the following, where feasible:

Per EO N-79-20, invest to create new clean transportation options in urban, suburban, and rural settings for all Californians as well as for goods movement by:

Building toward an integrated, statewide rail and transit network, centered around the existing California State Rail Plan that leverages the California Integrated Travel Project to provide seamless, affordable, multimodal travel options in all context, including suburban and rural settings, to all users.

Investing in networks of safe and accessible bicycle and pedestrian infrastructure, particularly by closing gaps on portions of the state highway system that intersect local active transportation and transit networks or serve as small town or rural main streets, with a focus on investments in low-income and disadvantaged communities throughout the state.

Including investments in light, medium, and heavy-duty zero-emission vehicle (ZEV) infrastructure as part of larger transportation projects. Support the innovation in and development of the ZEV market and help ensure ZEVs are accessible to all, particularly to those in more rural or remote communities.

Additionally, per EO N-19-19, invest in ways that encourage further adoption and use of these clean modes of transportation mentioned above by:

Strengthening our commitment to equity by reducing public health and economic harms and maximizing community benefits to disproportionately impacted disadvantaged communities, including low-income communities, in urbanized and rural regions, and involve these communities early in decision-making.

Making safety improvements to reduce fatalities and severe injuries of all users towards zero on our roadways, railways and transit systems by focusing on context-appropriate speeds, prioritizing vulnerable user safety to support mode shift, designing roadways to accommodate for potential human error and injury tolerances, and ultimately implementing a safe systems approach.

Assessing physical climate risk as standard practice for transportation infrastructure projects to enable informed decision-making, especially in communities that are most vulnerable to climate-related health and safety risks.

Promoting projects that do not significantly increase passenger vehicle travel, particularly in congested urbanized settings where other mobility options can be provided and where projects are shown to induce significant auto travel. These projects should generally aim to reduce VMT and not induce significant VMT growth. When addressing congestion, consider alternatives to highway capacity expansion, such as providing multimodal options in the corridor, employing pricing strategies, and using technology to optimize operations.

Promoting compact infill development while protecting residents and businesses from displacement by funding transportation projects that support housing for low-income residents near job centers, provide walkable communities, and address affordability to reduce the housing-transportation cost burden and auto trips.

Developing a zero-emission freight transportation system that avoids and mitigates environmental justice impacts, reduces criteria and toxic air pollutants, improves freight's economic competitiveness and efficiency, and integrates multimodal design and planning into infrastructure development on freight corridors.

Protecting natural and working lands from conversion to more intensified uses and enhance biodiversity by supporting local and regional conservation planning that focuses development where it already exists and align transportation investments with conservation priorities to reduce transportation's impact on the natural environment.

Executive Order N-2-24

On July 31, 2024, Governor Newsom issued EO N-2-24 to support efforts to transform undeveloped and underutilized infill sites and buildings into housing. The EO sets the goal to create 2.5 million new homes by 2030 and directs several state agencies to work together to address barriers in the development of infill housing. The order's action to align infill housing development with state climate policies directly advances a 2021 CAPTI action to explore mitigation banks and exchanges. A mitigation bank is a system in which VMT reduction is monetized and credits are exchanged for money and applied to local, regional, or state level VMT reduction projects to mitigate a project's VMT impacts. A mitigation exchange is a system that would match VMT-generating projects with VMT-reducing projects, facilitated by a payment or other exchange.

The order states:

"The Governor's Office of Land Use and Climate Innovation (LCI) shall establish an interagency Task Force on Mitigation Banks, to include CalSTA, BCSH, Caltrans, HCD, and other state agencies as appropriate, for the purpose of developing a framework for a Statewide Mitigation Bank to provide flexibility in the use of infill housing as a mitigation strategy for transportation and housing projects with significant environmental impacts under CEQA."

The update to CAPTI will further the efforts of the EO through the coordination between LCI and supporting agencies to explore the option of creating a statewide exchange or bank and to create guidance and technical assistance that will support local and regional agencies in creating mitigation exchanges and banks at a regional or local level.



Building on CAPTI's Successes

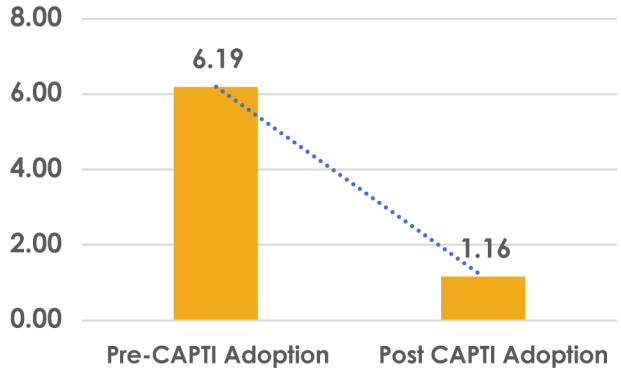
CAPTI's implementation led to new investments, guidance, tools, and partnership structures that have advanced the state's climate goals. The following are a few examples of outcomes that resulted from actions completed by the 2021 CAPTI.

MTI CAPTI Metrics Study: Lower Emissions from CAPTI Investments

CalSTA, in partnership with Caltrans, contracted with MTI at San Jose State University to develop a set of quantitative and qualitative metrics to track program level outcomes through the implementation of CAPTI to determine how state transportation investments are shifting. In order to quantify the VMT and GHG outcomes of CAPTI investments, the study created a VMT ratings scale by assigning values representing VMT impact to different project components (e.g., adding a crosswalk, widening a lane, or adding bicycle lanes). The higher the VMT rating, the more VMT that is projected to be generated by the projects being funded in that program while negative VMT ratings represented VMT decreases. Overall, using VMT as a proxy for GHG emissions, the MTI CAPTI study found a reduction of approximately 1/5th the amount of greenhouse gas (GHG) emissions generated across the portfolio of programs in the post-CAPTI adoption timeframe, as compared to earlier (pre- and post-N-19-19) timeframes. Inversely, the number of investments that do not result in higher greenhouse gas emissions and other pollutants increased post-CAPTI adoption, and the number of investments that do not induce

vehicle miles traveled (VMT) also increased post-CAPTI adoption. This is a significant shift and improvement in the climate related outcomes of CAPTI investments.

VMT Rating per Total Program Dollar Cost by Program Cycle by Time Period



The VMT ratings were created for the purposes of this study based on best available research regarding VMT outcomes of certain project types, and are not directly based on project level reported VMT numbers, and therefore may not reflect project specific estimates as reported by applicants.

Solutions for Congested Corridors Program

In Cycle 3, for the first time in program history, all 10 SCCP awarded projects were multi-modal projects, totaling nearly $533 million in investments. The program saw an increase in multi-modal projects that reduce VMT, and a decrease in highway expansion investments that induce VMT. Through the new workstreams from CAPTI, there is an opportunity to move the program closer to VMT neutrality.

Trade Corridor Enhancement Program

In Cycle 3, TCEP program guidelines were updated to include incentives to support zero-emission infrastructure projects. Of the 26 Cycle 3 projects that were awarded, 38% included zero-emission investments and over 40% had active transportation improvements bundled with freight improvements. CalSTA sees future opportunities through CAPTI to address and mitigate passenger VMT impacts of freight projects while focusing on freight benefits as a key criterion of project selection. Additionally, CAPTI will explore how to further reduce environmental justice burdens on underserved communities from these important freight investments.

Quantitative Tools

The use of data and quantitative tools are important to implementing the direction of CAPTI in our work. To further guide their investment-making in alignment with CAPTI, Caltrans created and refined two tools —the Transportation Equity Index (EQI) and its Caltrans Strategic Investment System (CSIS), both called for as actions in the 2021 CAPTI. In spring 2024, the Department completed development of Version 1.0 of the EQI, a tool to assist in the evaluation and prioritization of Department projects through data-driven assessment of transportation equity needs. CSIS, an investment framework for evaluation of transportation infrastructure projects in alignment with CAPTI, was also piloted on SB1 Cycle 4 Caltrans project nominations. An engagement process informed development of the tool, and additional outreach and training continue to be offered to Caltrans employees, interagency partners, and other stakeholders.

Interagency Equity Advisory Committee

The Interagency Transportation Equity Advisory Committee (EAC) was established as a joint effort by the CTC, CalSTA, and Caltrans. The EAC aims to provide input on achieving effective outcomes in transportation access, environmental impact, and economic opportunities. Consisting of up to 15 members serving two-year staggered terms, the committee includes representatives from California's diverse communities, including underserved and low-income areas. Members bring expertise from tribal and indigenous communities, community organizations, climate and air quality groups, housing organizations, accessibility and disability advocates, and diverse geographic regions, including rural areas.

Reconnecting Communities: Highways to Boulevard Pilot Grant Program

Building on a CAPTI 2021 action to "Explore a Highways to Boulevards Conversion Pilot Program," the Fiscal Year 2022-2023 State Budget established the Reconnecting Communities Highways to Boulevard Pilot Program (RC:H2B), with the primary goal to reconnect communities harmed by transportation infrastructure, through community-supported planning activities and capital construction projects that are championed by those communities. The RC:H2B pilot offers an opportunity to form and grow best practices in community reconnection, where transportation investments increase community benefits without exacerbating existing burdens, embracing the



Inaugural Equity Advisory Committee Members and Interagency Staff convened in Stockton on September 26, 2023. Pictured left to right, back to front: Laura Pennebaker, Paul Golaszewski, Randy Torres Van Vleck, Kristine Williams, Ana Gonzalez, Marta Armas, William Walker, Cheryl Viegas Walker, Amber Novey, Abigail Jackson, Carolyn Abrams, Sequoia Erasmus, Alexis Lantz, Cherry Zamora.

guiding principles of the CAPTI framework. In 2024, the City of Arcata, South San Francisco, and Southeast San Diego/National City were selected for proposals to partner with local and state agencies to develop solutions that would reconnect neighborhoods impacted by the state highway system.

Transit Priority on the State Highway System

The recovery from the COVID-19 Pandemic was challenging for many industries, including transportation. Public transit in particular faced slow recoveries in ridership. In a report on the effects of the pandemic on transit ridership, the Federal Transit Administration (FTA) reported that transit ridership decreased 81% between April 2019 and April 2020 (overlapping with the peak of the Pandemic). While some agencies attempted to ease the burden on essential workers and underserved communities, cuts in transit services most heavily impacted these groups who depend on transit. The sudden loss of fare-box revenue to support transit operations presented fiscal challenges to transit agencies nationwide. Additionally, changing commute patterns and the rise of telework have drastically changed how and when people use transit, further straining agencies throughout the nation.

Two important pieces of legislation were passed in 2023 and 2024 to help address short and long-term needs for transit operations and ridership in California.

First, Senate Bill 125 (Chapter 54, Statutes of 2023) guides the distribution of $4 billion in General Fund to the Transit and Intercity Rail Capital Program (TIRCIP) to fund transit operations or capital improvements while also convening a Transit Transformation Task Force to develop policy recommendations to grow transit ridership and improve transit experience for all transit riders. In 2024, CalSTA announced $1.3 billion in competitive awards for the TIRCIP program to improve transit and passenger rail service in California. This funding follows more than $2.2 billion distributed to agencies in the summer of 2024 on a formula basis pursuant to SB 125.

Senate Bill 960 (Chapter 630, Statues of 2024) requires; Caltrans to adopt a transit policy to guide the implementation of transit priority facilities and transit stops on the state highway system. CalSTA is committed to the expeditious implementation of SB 960 and sees its implementation as a key action to further implement the CAPTI framework.

Thinking about the future of transit networks, ridership and overall sustainability of the transit industry is complementary to new and existing CAPTI workstreams.



Strategies & Actions to Further Implement the Investment Framework

To ensure that state transportation investments are aligned with the Investment Framework's guiding principles, further changes may be necessary to current transportation planning, programming, project delivery, maintenance, and operations activities. Such changes will help advance a slate of projects that meet climate goals, ensure that these projects are prioritized for state funding, and promote project construction and operations that minimize emissions and impacts from climate change.

Building off the successes of the original 34 CAPTI actions, this Action Plan update identifies four new strategies and 14 new key actions necessary for further implementation of the CAPTI framework.

The MTI study showed encouraging trends towards advancing more sustainable, equitable, and healthy modes of transportations, as well as acceleration in the transition to ZEV technology, indicating the CAPTI Investment Framework's effectiveness in producing results that combat the climate crisis. Dedicated efforts of transportation partners and state agencies have been key in implementing the plan and bringing this work to fruition. Despite our progress, we know that these efforts alone will not result in achieving the Climate Change Scoping Plan VMT reduction targets needed to meet our state climate goals.

Previous streams of work tied to the original 2021 CAPTI will continue as appropriate. New actions will commit CalSTA to new work streams to implement the framework beyond previous commitments to make further progress towards our goals. We anticipate the completion of these new actions by the end of the current Newsom Administration and will report on our progress by the end of 2026. The new strategies and actions are as follows:

S1. Transforming the Future of the State Highway System

These actions help re-envision a state highway system where projects are developed to meet the state's current and future transportation, climate health and equity needs. This includes exploring initiatives that more efficiently manage the existing system, prioritize the movement of transit, deliver zero emission freight infrastructure, and improve our systems resilience in the face of climate impacts.

Key Action	*Description*	*Agencies**
S1.1 Create a Caltrans Statewide Express Mobility Action Plan that defines the role of roadway pricing and includes equity-based best practices, in consultation with the Roadway Pricing Working Group and the Interagency EAC.	This action commits Caltrans to the development and release of the Statewide Express Mobility Plan, in consultation with the State Roadway Pricing Working Group (SRPWG), the Interagency EAC, and other key stakeholder and community partners, including the California Toll Operators Committee (CTOC). The Plan will outline the role of roadway pricing on planned and existing facilities, include a clear roadmap for expanding facilities-based pricing mechanisms across California. Stakeholder workshops will focus on understanding local and regional transportation needs, potential impacts of roadway pricing on underserved and low-income individuals and communities, and developing inclusive strategies for fair pricing models. The Plan will include actionable steps for the implementation of fair pricing, addressing applicability, or lack thereof, in both urban and rural contexts.	***Lead:*** Caltrans ***Support:*** CTC
S1.2 Implement a climate adaptation planning and delivery framework and corresponding performance targets at Caltrans.	This action commits Caltrans to develop a prioritization methodology for climate adaptation projects currently identified in Caltrans District plans. This effort will consider the diverse set of climate risks found throughout the state and work to reduce the vulnerability of the state highway system by exploring nature-based solutions and improving habitat and wildlife connectivity. Caltrans will work with LCI and their Integrated Climate Adaptation and Resiliency Program (ICARP), as well as regional partners and other stakeholders to develop the methodology. Caltrans will continue to support climate adaptation projects through state and federal funding opportunities where feasible. Caltrans will also review existing processes to identify opportunities within the Project Approval and Environmental Document (PAED) phase to standardize project delivery practices related to climate adaptation. Caltrans will strive to meet its climate change adaptation performance objectives identified in the 2024-2028 Caltrans Strategic Management Plan. These objectives include decreasing closures on the state highway system associated with climate stressors and increasing the return on project investment for projects associated with climate risk.	***Lead:*** Caltrans ***Support:*** LCI

**The support agency is at the discretion of the lead agency to consult or include.*

Key Action	Description	Agencies*
S1.3 Establish a Central Delivery Team to support planning and investment in zero-emission freight, as recommended by the SB 671 (Chapter 769, Statutes of 2021) Assessment.	This new action commits CalSTA and GO-Biz to establish a Central Delivery Team to support zero-emission (both battery-electric and hydrogen fuel cell electric) freight infrastructure planning and implementation, including carrying out the actions identified in the CTC's Clean Freight Corridor Efficiency Assessment, where feasible. The Central Delivery Team will function as a cross-agency team including the California Energy Commission (CEC), Caltrans, CalSTA, the Governor's Office of Business and Economic Development (Go-Biz), CARB, California Public Utilities Commission (CPUC), and the CTC. The Central Delivery Team will identify leads from Regional Transportation Planning Agencies, Metropolitan Planning Organizations, ports, utilities, trucking fleets, infrastructure developers, and other stakeholders that are necessary to deliver stations quickly. The Central Delivery Team will build off existing state equity efforts, in coordination with impacted communities, community-based organizations, tribal nations, and equity, public health, and environmental advocates, to develop a process for engaging stakeholders in infrastructure project planning, deployment, and implementation.	***Lead:*** CalSTA GO-Biz ***Support:*** CTC Caltrans CEC CPUC CARB

**The support agency is at the discretion of the lead agency to consult or include.*

S2. Reducing GHG Impacts of Transportation Investments

The MTI study on the impact of CAPTI investments on GHG and VMT showed encouraging trends that indicate the CAPTI Investment Framework's effectiveness in producing results that combat the climate crisis. The study showed a five-fold reduction in projected VMT generation in the first cycle of funding since CAPTI adoption compared to pre-CAPTI adoption investments. Dedicated efforts of transportation partners and state agencies have been key in implementing the plan and bringing this work to fruition. Despite our progress, we know there are additional opportunities to support agencies in further reducing VMT impacts from projects, as well as opportunities to evaluate and improve on the evolving state of practice of VMT analysis and mitigation.

Key Action	Description	Agencies*
S2.1 Create a statewide VMT mitigation bank or exchange program that facilitates mitigation directly and/ or assists regions in creating their own programs to deliver infill housing and other VMT-reducing projects as mitigation at scale.	Mitigation banks and exchanges would relieve project teams of having to identify mitigation measures individually and allows for implementation of mitigation in advance of the need. An exchange program would include mitigation measures for implementation and the associated VMT reduction that projects could employ when needed. A bank would monetize the VMT reduction allowing projects to purchase mitigation and could potentially generate revenue for specific uses such as affordable housing as VMT Mitigation. This new action commits LCI to explore the option of creating a statewide exchange or bank and to create guidance and technical assistance that will support local and regional agencies in creating mitigation exchanges and banks at a regional or local level. The guidance will consider how statewide and regional approaches can work concurrently and how to account for environmental justice and equity concerns when mitigating projects.	***Lead:*** LCI (formerly OPR) ***Support:*** CalSTA Caltrans CARB

**The support agency is at the discretion of the lead agency to consult or include.*

Key Action	Description	Agencies*
S2.2 Improve VMT analysis and mitigation guidance for rural projects to better account for the low VMT impact of many rural projects in consultation with rural stakeholders.	While California is making progress meeting the goals of VMT reduction from CAPTI investments, much of the significant reductions are tied to mitigation or avoidance of projects in urbanized areas. A one-size-fits all strategy may not be suitable for rural projects. The existing research on induced travel demand and VMT reduction is primarily from studies conducted in urban and metropolitan areas where highway capacity has been added with the goal to relieve congestion. Implementation of these strategies in rural areas require more nuanced guidance given the limited research. This action will commit Caltrans to conducting any necessary additional studies or identifying technical research that can inform guidance for rural projects to better account for projects that are unlikely to induce travel demand, in consultation with regional and local rural stakeholders.	***Lead:*** Caltrans ***Support:*** CARB LCI
S2.3 Update the Trade Corridor Enhancement Program (TCEP) guidelines to state that goods movement projects that mitigate their passenger VMT impacts are more competitive for funding.	The TCEP statute requires that projects be evaluated across several criteria, including the project's ability to reduce particulate, and GHG emissions and community impacts, particularly in disadvantaged communities. Projects that mitigate passenger VMT help reduce emissions of diesel particulates, GHGs, other pollutants, and other negative community impacts. The implementation of this action will commit the CTC to update TCEP program guidelines to emphasize that projects which improve freight mobility and safety while mitigating passenger VMT impacts from their project are more likely to be competitive in the program. This action will be implemented while maintaining geographic equity in project selection and continuing to address key freight needs.	***Lead:*** CTC
S2.4 Update the Solutions for Congested Corridors Program (SCCP) guidelines to target a VMT neutral suite of investments, through continuing existing practice in guidelines to prioritize projects that reduce VMT.	This new action will commit the CTC to update SCCP guidelines to target a VMT neutral suite of investments. In Cycle 3 of SCCP, according to an MTI study of CAPTI, SCCP significantly reduced its VMT generation compared to cycle 2 but was not yet VMT neutral. Under this action, future cycles of the program will target VMT neutrality using the existing practice in the guidelines to prioritize projects that reduce VMT.	***Lead:*** CTC

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S3. Delivering Equitable Outcomes

Ensuring that transportation investments address the need of community stakeholders goes beyond engagement. Transportation investments may benefit or impact communities differently and require thoughtful consideration towards developing policies, programs, and projects that result in positive equity and economic outcomes while addressing climate goals. This strategy aims to create improved processes, practices, and technical assistance resources to deliver equitable outcomes for those most impacted by projects.

Key Action	*Description*	*Agencies**
S3.1 Continue strengthening existing SB 1 program guidelines to better account for environmental justice impacts of projects.	In 2022, the CTC developed the SB 1 Programs Transportation Equity Supplement to promote more equitable outcomes for transportation projects submitted in the SB 1 competitive programs. Additionally, Community Engagement was added to the SB 1 Programs as an evaluated criterion, as a mechanism to directly integrate the content of the equity supplement into the evaluation process. This new action will commit the CTC to update SB 1 program guidelines, and the SB 1 Transportation Equity Supplement, to further promote project applicants to engage and partner with environmental justice groups and their local and regional agencies as a means of demonstrating that projects are accounting for particulate pollution, traffic safety risks, displacement, and noise pollution within these communities.	***Lead:*** CTC
S3.2 Improve technical assistance to Tribal governments by reviewing existing services and programs, consulting with Tribal governments on needs, and revising or expanding existing services or programs through partnerships to address needs.	In alignment with the State of California's commitment to support tribal communities, this action will commit Caltrans to work with the Native American Advisory Committee (NAAC), to establish Tribal workgroups to make recommendations to improve existing processes with the goal of improving Tribal government access to infrastructure funding, services, and programs. The working groups will consist of NAAC members, tribal leaders from across the state, and appropriate subject matter experts. Through these workgroups, Caltrans will assist with evaluating existing processes related to tribal contracting and consultation, Tribal Employment Rights Ordinance (TERO), and advancing project delivery.	***Lead:*** Caltrans CTC
S3.3 Create a Caltrans Director's Policy focused on displacement caused by projects on the state highway system with the intent to avoid future housing takings, particularly in disadvantaged communities.	The anti-displacement memo developed by CalSTA, and the interagency Housing & Transportation Workgroup creates recommendations and best practices on how programs funded by CAPTI can incentivize anti-displacement strategies. Building upon this work, a Caltrans Director's policy on displacement would outline and update the process for property takings from Caltrans projects on the state highway system. The intent of this guidance would be to strengthen existing policy to avoid direct displacement caused by housing takings in disadvantaged communities where feasible. In rare circumstances where it might be infeasible for programs to avoid housing displacements in disadvantaged communities due to a project, the policy would outline what steps and actions should be taken by the project to disclose the need for the takings and direct project teams to work with vulnerable groups to minimize the impact.	***Lead:*** Caltrans

**The support agency is at the discretion of the lead agency to consult or include.*

S4. Improving Transparency and Accountability

In the original CAPTI, CalSTA committed to strategies and actions that improved transparency with the implementation of the Action Plan. This strategy will continue that commitment and further increase accountability for the state to meet its climate and equity goals. CalSTA will continue to monitor CAPTI implementation and evaluate how the CAPTI actions are meeting the state's climate goals while also increasing transparency in the way the state approaches project delivery.

Key Action	*Description*	*Agencies**
S4.1 Provide a public database of projects under development on the state highway system.	This action will commit Caltrans to provide publicly accessible and searchable database of projects under development to increase transparency and accountability for how CAPTI investments are meeting its transportation, climate, and equity goals. Providing a database of projects on the state highway system will foster a more informed and engaged public in local and regional planning and development discussions around project purpose, need, and approach to meeting project objectives. This database will serve as a resource for the public, stakeholders, and local communities to access information about ongoing transportation projects currently under development on the state highway system, such as projects with existing Project Initiation Documents (PIDs), and not yet approved for inclusion into a programming document (unfunded), throughout the state. The database will regularly be updated to reflect the latest information on project status, including milestones, changes, and completion dates, ensuring users have access to current data.	***Lead:*** Caltrans
S4.2 Explore opportunities to preserve the implementation of CAPTI Guiding Principles in future administrations.	CAPTI provides both a set of guiding principles that create a holistic vision for how to prioritize state discretionary transportation dollars, as well as a living action plan that is continually updated to implement the framework. To continue the vision and direction that CAPTI has set forth, CalSTA commits to working within the administration and with the legislature to explore opportunities to preserve CAPTI's vision to ensure that the goals set forth through this plan continue to be a focus beyond the term of the Newsom Administration.	***Lead:*** CalSTA
S4.3 Launch another CAPTI outcomes study to continue evaluation of climate, equity, and economic outcomes of CAPTI investments.	In 2023, CalSTA, in partnership with Caltrans, contracted with MTI at San Jose State University to develop a set of quantitative and qualitative metrics driven by CAPTI goals to determine how state transportation investments are shifting towards climate action (from pre-CAPTI adoption through the SB 1 Cycle 3 award timeframe). This new effort commits CalSTA to continue to study changes from transportation investments on VMT and GHG emissions, transportation equity (using the Caltrans Equity Index), and economy (i.e., quantity and quality of jobs) since the 2023 MTI study was completed. The study will include the evaluation of SB 1 Cycle 4 awards to help determine investment outcomes of the metrics tool, and how they may be increasing state multi-modal spending for climate action, equity, and economy.	***Lead:*** CalSTA ***Support:*** Caltrans
S4.4 Improve the SHOPP public engagement process, particularly for projects with significant community benefits or impacts.	The efforts to increase accountability for equitable public engagement for projects on the state highway system have led to best practices and the development of public engagement resources such as the Caltrans Engagement Portal. This new action commits Caltrans to improving the Department's public engagement for SHOPP projects utilizing existing Caltrans best practices and in consultation with the Interagency EAC. SHOPP projects with significant community benefits or impacts should consider the development of a Public Engagement Plan and utilization of the Caltrans District Community Engagement Playbook and Caltrans Engagement Portal to ensure consistency in the engagement process. Engagement for these projects is not a one-size-fits all approach and will vary from individual Caltrans Districts Offices who may provide specific guidance in accordance with their District engagement policies.	***Lead:*** Caltrans

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Implementation: A Two-Year Outlook

To ensure that progress is made towards implementation, CalSTA commits to publishing an Implementation Progress Report before the end of 2026 to report on the final status and completion of each of the new CalSTA actions before the end of the Newsom Administration. Additionally, CalSTA will measure the progress made since the last CAPTI MTI study by launching another outcomes study to evaluate changes from transportation investments on VMT and GHG emissions, equity, and economic outcomes. CalSTA and CalSTA departments look forward to partnering with the many local, regional, and statewide agencies and organizations necessary to implement the new actions presented in this update to CAPTI.

Appendix A

Additional Resources

2022 Scoping Plan for Achieving Carbon Neutrality

Climate Action Plan for Transportation Infrastructure (CAPTI)

CAPTI Webpage

Executive Order N-19-19

Executive Order N-79-20

Executive Order N-2-24

Mineta Transportation Institute Study on Evaluating CAPTI

Appendix B:

List of Acronyms and Abbreviations

ATP	Active Transportation Program
BCSH	California Business, Consumer Services and Housing Agency
Cal-ITP	California Integrated Travel Project
CalSTA	California State Transportation Agency
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CPUC	California Public Utilities Commission
CSIS	Caltrans Strategic Investment Strategy
CTC	California Transportation Commission
CTOC	California Toll Operators Committee
CTP/CTP 2050	California Transportation Plan 2050
EAC	Interagency Equity Advisory Committee
EO	Executive Order
EQI	Caltrans Transportation Equity Index
FTA	Federal Transit Administration
GHG	Greenhouse Gas
GO-Biz	Governor's Office of Business and Economic Development
HCD	California Department of Housing and Community Development
ICARP	Integrated Climate Adaptation and Resiliency Program
ICE	Internal Combustion Engine
ITIP	Interregional Transportation Improvement Program
LCI	Governor's Office of Land Use and Climate Innovation (formerly Governor's Office of Planning and Research)
LPP	Local Partnership Program
NAAC	Native American Advisory Committee
PAED	Project Approval/Environmental Document
PID	Project Initiation Document
RC:H2B	Reconnecting Communities: Highways to Boulevard Pilot Grant Program
SB 1	Senate Bill 1
SB 125	Senate Bill 125 (Chapter 54, Statutes of 2023)
SB 150	Senate Bill 150 (Chapter 646, Statutes of 2017)
SB 671	Senate Bill 671 (Chapter 769, Statutes of 2021)
SB 960	Senate Bill 960 (Chapter 630, Statues of 2024)
SCCP	Solutions for Congested Corridors
SCS	Sustainable Communities Strategy
SGC	California Strategic Growth Council
SHOPP	State Highway Operations & Protection Program
SRPWG	State Roadway Pricing Working Group
TCEP	Trade Corridor Enhancement Program
TERO	Tribal Employment Rights Ordinance
TIRCP	Transit & Intercity Rail Capital Program
VMT	Vehicle Miles Travelled
ZEV	Zero-Emission Vehicle





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CITY COUNCILMEMBER REPORT

Council Meeting Date: 09/15/2026

Submitted by:* Mayor Pierre Washington

Event Date: 03/09/2026

Event Type Committee Report

Event Title: AC Finance Subcommittee

Event Report: Vice Mayor Mark Joseph and I attended the Finance Subcommittee meeting where we received presentations from Assistant City Manager Juan Gomez and Finance Director Jem Cruz.

The purpose of the meeting was to review the city's financial position, discuss current budget priorities, and examine upcoming fiscal considerations. Staff provided an overview of the city's financial outlook and discussed factors that may impact revenue, expenditures, and long term financial planning. o

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Event Date: 03/09/2026

Event Type Community Event

Event Title: Veterans Community Meeting

Event Report: Deputy City Manager Allie Ikeada and I had the opportunity to meet with longtime veteran advocate and community leader Maria McConnel to discuss American Canyons involvement and support of our local veterans community.

During our conversation, we explored ways the city can continue to recognize, engage and support veterans who have served our country. Maria shared valuable insights regarding the needs of local veterans, opportunities for collaboration with veterans serving organizations and ways to strengthen connections between city and veteran community.

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Event Date: 04/09/2026

Event Type Community Event

Event Title: Meeting with Chamber CEO and Chair

Event Report: I had the opportunity to me with the American Canyon Chamber CEO and Chair to discuss ways we could join forces and work collaboratively for the benefit for the city of American Canyon. One solution was to organize a joint Chamber and Council meeting in Q1 of 2027.

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Future Agenda Items

September 24, 2026, Planning Comm. 6:30p.
Promontory TSM and WRSPA
RE Zoning District: Home Occupation Standards

October 6, 2026, City Council 6:30 p.m.
Proclamation: Domestic Violence Awareness
Proclamation: Filipino American Heritage
Water Professionals Appreciation Week
UWMP and Water Shortage Contingency Plan
Q1 CIP Update

October 7, 2026, Joint OSATS & PCS 6:30p
E-Bike Ordinance

October 8, 2026, PCS - CANCELLED

October 20, 2026, City Council 6:30 p.m.
Proclamation: Code Compliance Month
Proclamation: Veteran's Day
PG&E Seasonal Outlook Winter 26-27
Promontory TSM and WRSPA
Rural Neighborhood Home Occupation
Ordinance: First Reading

October 22, 2026, Planning Comm. 6:30 p.m.
TBD

November 3, 2026, City Council - CANCELLED

November 4, 2026, OSATS. 6:30 p.m.
Residential Tree Program
Reusable Foodware Ordinance
E-bike Ordinance

November 12, 2026, PCS 6:30 p.m.
Community Grant Program Presentations

November 17, 2026, City Council 6:30 p.m.
Proclamation: Acknowledging Diwali

November 19, 2026, Planning Commission
TBD

December 1, 2026, City Council 6:30p
Certify Election Results
Swear-In New Council Member(s)
Select Vice-Mayor
Council Committee Appointments
2027 Council and Commission Calendar

December 2, 2026, TBID 11:00 a.m.

December 2, 2026, OSATS - CANCELLED

December 10, 2026, JOINT PCS & OSATS 6:30p
Presentation: Tree City USA
Evaluate Trail Way Finding & Park Connectivity

December 15, 2026, City Council 6:30p
FY 25/26 ACFR
Community Grant Funding Allocations

December 17, 2026, Planning Commission
TBD

Unscheduled Council Directed Items			
Item	**Councilmember**	**Date of Vote**	**Notes**
Purple Heart Designation	Washington	10/15/2024	TBD
Add Quarterly Circulation Update Report	Joseph	06/02/2026	TBD
Economic Development in Industrial Park	Joseph	08/04/2026	TBD