



TRANSPORTATION AUTHORITY OF MARIN

REQUEST FOR QUALIFICATIONS

DATE ISSUED: JANUARY 27, 2025

**Services to Prepare a Project Initiation Document (PID)
And Project Approval Environmental Document (PA/ED)**

for the

MARIN COUNTY US-101 PART TIME TRANSIT LANE

QUALIFICATION PACKAGES DUE:

MONDAY, FEBRUARY 24, 2025, BY 4:00 P.M.

**Transportation Authority of Marin
900 Fifth Avenue, Suite 100
San Rafael, CA 94901**

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MARIN COUNTY US-101 PART TIME TRANSIT LANE

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Attachments:

- A: Sample Contract (with FTA Contract Provisions)
- B: US-101 Part Time Transit Lane Feasibility Study, Dated September 2021
- C: Debarment, Suspension, Ineligibility & Voluntary Exclusion Certification
- D: Certification Regarding Lobbying

**TRANSPORTATION AUTHORITY OF MARIN
REQUEST FOR QUALIFICATIONS (RFQ)**

MARIN COUNTY US-101 PART TIME TRANSIT LANE

SECTION 1 – INFORMATION & BACKGROUND

The Transportation Authority of Marin (TAM) is the Congestion Management Agency (CMA) for Marin County and the Transportation Sales Tax Authority established to address Marin's unique transportation issues, and to fulfill the legislative requirements of Propositions 111 and 116, approved in June 1990. TAM also administers funds raised by the County's Measure AA transportation sales tax approved by voters in 2018 and the voter approved Measure B - Vehicle Registration Fee. The TAM Board includes representatives from each city and town in Marin County, plus the five members of the County Board of Supervisors. TAM is responsible for implementing various transportation programs and projects on and off the state highway system.

US-101 in Marin County provides the only continuous north-south connectivity in Marin County and carries over 200,000 vehicles per day. As the 21st most congested corridor in the bay area in 2017, transit travel times in the corridor degrade substantially in the southbound AM peak period, and reliability of transit service suffers. Congestion is forecasted to increase in the AM southbound direction. Additionally, this growing delay would increase transit costs to operate in the corridor for our most transit dependent populations.

US-101 in Marin County is unique with existing in-line bus stops on the shoulder of the highways, providing connectivity to local transit routes and park and ride opportunities. However, between these bus stops, bus travel times degrade due to the need for buses to merge in with congested mixed flow traffic. Connecting these existing in-line bus stops with bus-on-shoulder access will decrease transit travel times in the corridor, favorably competing with auto travel times, and providing an attractive transit service to reduce single occupancy vehicles (SOV's) in the corridor.

Overall Project Objectives of the Part Time Transit Lane (PTTL) Project:

- Reduce transit travel times
- Improve transit competitiveness with automobile
- Serve low-income communities
- Reduce transit operations costs in the corridor
- Increase corridor person throughput
- Determine cost effectiveness in terms of transit travel time benefits achieved, transit ridership, and capital costs
- Maintain or improve CHP's enforcement ability on Highway 101
- Maintain or improve safe operations in the corridor

In 2021, The Transportation Authority of Marin (TAM), supported by a California Department of Transportation (Caltrans) Sustainable Communities (SB-1) Grant, evaluated the feasibility of implementing PTTL along US Highway 101 (US-101) in northern Marin County. The US-101 PTTL Feasibility Study (Study) examined the conditions for, and feasibility of PTTL operations along the corridor with the goal of developing an operational concept for implementation based on demonstrated travel benefits to transit travel time and reliability.

As part of this Study, TAM:

- Determined the suitability of shoulders, slip lanes, and auxiliary lanes for bus use
- Developed concept plans and identified improvements
- Evaluated travel benefits
- Formulated next steps for implementation and assessed relationships to other ongoing projects along US-101

TAM intends to create a Technical Advisory Committee (TAC), including Caltrans, California Highway Patrol, Marin Transit, Golden Gate Transit, and the local jurisdictions of San Rafael, Novato, the County of Marin.

TAM has partnered with Marin Transit to successfully obtain grant funding to prepare the Caltrans PID and PA/ED documents. Marin Transit has secured the funds that are administered by the Federal Transit Administration (FTA) and TAM will serve as the project manager during the implementation of the PTTL Project.

It is TAM's intention to prepare the project documents to advance the PTTL Project. Ideally, all work must be completed with final invoices to FTA by December 31, 2026. TAM has established a budget for this work in the amount of approximately \$750,000.

SECTION 2 – SCOPE OF SERVICES

TAM intends to retain one qualified and committed professional engineering firm/team to provide services required for a Caltrans Project Initiation Document (PID) and Environmental Project Approval Environmental Documents (PA/ED) for a Part Time Transit Lane on Southbound US-101 from Novato to San Rafael in Marin County.

The selected consultant team will work closely with TAM, Caltrans, Marin Transit, Golden Gate Transit and the affected local jurisdictions. The consultant will review the attached US-101 PTTL Feasibility Study, dated September 2021, and provide the following professional and technical engineering services to gain approval and adoption:

Task 1 – Project Management: Provide all the necessary project coordination, administration, management and interfacing with TAM, Caltrans and other internal/external stakeholders to achieve project objective with proper quality assurance and quality control, including preparation of all project management documentation, such as project management plan, risk management plan, quality management plan, project communication plan, project schedules, and meeting and progress reports. The Consultant will be working directly under the supervision of TAM.

Deliverables: To include, but not limited, to meeting agendas, materials, and notes; Monthly invoices and progress reports; Detailed Microsoft Project schedules updated monthly; Project Management Plan; Risk Management Plan; Project Communication Plan; Quality Management Plan

Task 2 – Consensus Building and Outreach: Prepare and implement a series of technical stakeholder meetings, public workshops and presentations. Prepare and maintain outreach channels, including creation of a project website.

Deliverables: Prepare and implement an outreach plan to document internal/external feedback and develop and maintain project website.

Task 3 – Complete PID and Obtain Caltrans Approval: Prepare a Caltrans PID (e.g. PSR/PDS, PSR), and conduct all work necessary to obtain Caltrans approval. Prepare all analyses, fact sheets, and engineering studies to support the PID effort. The PID should be done in accordance with Caltrans policy and procedures, including but not limited to the Project Development Procedures Manual (PDPM) Chapter 9 & Appendix S as well as the Risk Management policies & procedures for quantified risk registers.

Deliverables: Preliminary Draft PSR-PDS; Draft PSR-PDS; Caltrans-approved Final PSR-PDS and Comment Resolution Matrix

Task 4 – Perform Environmental Studies and Prepare Draft Environmental Documents: Conduct detailed environmental technical studies to be evaluated in the draft environmental documents for CEQA & NEPA (DED), prepare the administrative DED and obtain approval to circulate the DED, if needed. Follow Caltrans policy & procedures in the PDPM for Project Approval and the Standard Environmental Reference (SER) for the Environmental Document clearance.

Deliverables: Preliminary Draft PSR-PDS; Draft PSR-PDS; Caltrans-approved Final PSR-PDS and Comment Resolution Matrix

Task 5 – Prepare Draft Project Report: Based on the Caltrans Project Development Procedures Manual, a Draft Project Report (DPR) will be prepared and approved accordingly.

Deliverables: Draft Project Report approved by Caltrans.

Task 6 – Circulate DED and Select Preferred Project Alternative: Circulate DED, conduct and manage the public review and comment process. Guide the selection of the Preferred Project Alternative and prepare final Preferred Alternative Memorandum (Build or No Build).

Deliverables: Management and circulation of DED and preparation of final Preferred Alternative Memorandum.

Task 7 – Prepare and Approve Project Report and Final Environmental Documents: Update all relevant draft final documents and NEPA/CEQA reports for final distribution and reviews. Resolve comments from stakeholders regarding the final conclusions of the Final ED.

Upon conclusion of discussions, the Final ED will be published and Caltrans signature obtained for the title page. Obtain Notice of Determination and Record of Decision. File documents with appropriate agencies.

Deliverables: Approval of Project Report and Final Environmental Documents.

Ideally, all work must be completed with final invoices to FTA by December 31, 2026, and submitted schedules should reflect this if reasonably achievable. The consultant is encouraged to provide additional information that will demonstrate their qualifications.

SECTION 3 – RFQ SUBMITTAL REQUIREMENTS

- 1. Transmittal Letter:** The qualification statement shall be transmitted with a cover letter describing the firm's/team's interest and commitment to the proposed project. The letter shall state that the qualification statement shall be valid for a 90-day period and should include the name, title, address, email, and telephone number of the individual to whom correspondence and other contacts should be directed during the consultant selection process. If applicable, acknowledgment of any addendum and review of any RFQ Q&A posted on TAM's website shall be stated. The person authorized by the firm/team to negotiate a contract with TAM shall sign the cover letter.
- 2. Qualification Statement:** Submit five (5) hard copies and one PDF file of your qualifications. The qualification package (excluding resumes and the transmittal letter) shall not exceed a total of 50 double-sided, 8.5" x 11" pages. Any 11x17 pages should be limited in use and will count as two pages to the page limit. The qualification statement will be of sufficient quality to show your basic approach to the work. Resumes should be included in an appendix that will not count towards the page limit.
- 3. Qualifications and Experience:** The qualification statement shall provide the qualifications and experience of the consultant(s). Please emphasize the specific qualifications and experience of key members of the team in providing the requested services. Identify the position or role key team members provided during the delivery process. Key Team Members are expected to be committed for the duration of the project. Replacement of Key Team Members will not be permitted without prior consultation with and approval of TAM
- 4. Project Understanding:** The qualification statement should describe your understanding of the general scope of work and your approach to meeting the task objectives outlined in this RFQ. Discuss in general terms how the services would be performed and what deliverables would be submitted.
- 5. Management Plan and Schedule:** This section of the qualification statement shall provide an example of the firm's/team's comprehensive management plan for a similar project providing similar services, including staff proposed and their availability to perform the work identified in this RFQ. For the qualification statement, develop a tentative schedule, identifying only major project milestones and the anticipated duration for each activity.

6. **References:** The qualification statement should provide a minimum of three references (including contact names and current phone numbers) that indicate the ability of your firm to successfully deliver this project.
7. **Submittal:** TAM will evaluate the qualifications of the firms and select the firm determined to be the most qualified to complete the PID and PA/ED for the PTTL project. At its discretion, TAM will then ask the selected firm to submit a proposal with the scope of services and fee schedule.
8. **Professional Services Contract:** Within the transmittal/cover letter, indicate your willingness to accept the terms and conditions in attached sample contract, including your ability to comply with TAM's insurance requirements, any conflict of interest, or list those to which you take exception, and, as appropriate, provide proposed alternate wording. This will be a Cost plus Fixed Fee contract. Prime and major team members must have audits from the previous year showing their indirect cost rate. Note that it is not TAM's intent to make substantial changes to the attached sample contract.

Submittal Procedure

The qualification packages shall be submitted in accordance with the following requirements:

1. The qualification packages shall be transmitted with a cover letter as described above.
2. The qualification packages shall be addressed to:

Nicholas Nguyen, Project Delivery Manager
Transportation Authority of Marin
900 Fifth Avenue, Suite 100
San Rafael, CA 94901

3. The qualification packages shall be dispatched in order to be received at the above address no later than 4:00 p.m., Monday, February 24, 2025. Late qualification packages will not be accepted.
4. Questions pertaining to this RFQ or the Scope of Services should be directed in writing via email to: Nicholas Nguyen at nnguyen@tam.ca.gov.

TAM will make every effort to provide individual responses to all written questions submitted and will not respond to questions posed by any means other than e-mail. Responses to questions may take up to two working days and all responses (with questions) will be posted on TAM's website: www.tam.ca.gov under the RFP/RFQ section.

SECTION 4 – METHOD/CRITERIA FOR SELECTION

The following criteria will be used to evaluate qualification packages and to select a consultant team:

1. Qualifications and availability of the firm(s), the designated project manager and key staff: 30%
2. Demonstrated experience working with Caltrans procedures to prepare PID's, Environmental Documents (CEQA/NEPA): 20%
3. Experience with multi-agency multi-discipline project management and highway design services: 20%
4. Demonstrated experience working with transit agencies on multimodal transit corridor plans: 15%
5. Overall approach to management of the work and demonstrated ability to meet the requirements of the project: 15%

A panel will be convened to evaluate the qualification statements and develop a ranking of the most qualified consultants. The panel may include representatives from Caltrans, Transit Agencies, and participating local agencies. Members of the panel will not be revealed prior to interviews.

It is expected the top ranked firms will be invited to be interviewed by the panel. Interviews of the most qualified teams are to be scheduled during the week of March 10, 2025. The Project Manager and key team members are expected to attend the interview.

TAM will request a proposal from the top ranked firm and will then negotiate the fee for services. If TAM and the top ranked firm cannot agree on the fee, then TAM will terminate negotiations and open negotiations with the second ranked firm. If a fee cannot be agreed upon, TAM may choose to continue to negotiate with the third ranked firm or may choose to terminate the selection process and release a revised scope of work.

SECTION 5 – SELECTION PROCESS DATES

January 27, 2025	RFQ Released
February 14, 2025	Final day for Submittal of Questions
February 24, 2025	Qualification Submittal Packages Due
Week of March 10, 2025	Interviews (tentative)
April 4, 2025	Finalize Contract Negotiations (tentative)
April 24, 2025	TAM Board Contract Award (tentative)

SECTION 6 - PRE-AWARD AUDIT

Expected billings for this contract may be over the \$1,000,000 federal threshold for a pre-award audit. The prime contractor is expected to have a Cognizant Letter of Approval or be willing to obtain one upon the request of TAM.

SECTION 7 - DISADVANTAGED BUSINESS ENTERPRISES (DBE) POLICY

1. This contract is subject to the requirements of Title 49, Code of Federal Regulations, Part 26, *Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs*. The national goal for participation of Disadvantaged Business Enterprises (DBE) is 10%. This project will comply with Marin Transit's DBE program which has an overall goal for DBE participation of 1.6 %. However, no contract specific DBE participation goal has been established for this procurement.
2. The Contractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of this DOT-assisted contract. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as TAM deems appropriate. Each subcontract the Contractor signs with a subcontractor must include the assurance in this paragraph (see 49 CFR 26.13(b)).
3. The successful Contractor will be required to report its DBE participation obtained through race-neutral means throughout the period of performance. The Contractor will be required to report its DBE participation obtained through race-neutral means throughout the period of performance.
4. The contractor is required to pay its subcontractors performing work related to this contract for satisfactory performance of that work no later than 30 days after the contractor's receipt of payment for that work from TAM. In addition, the contractor may not hold retainage from its subcontractors.
5. The Contractor must promptly notify TAM whenever a DBE subcontractor performing work related to this contract is terminated or fails to complete its work and must make good faith efforts to engage another DBE subcontractor to perform at least the same amount of work. The Contractor may not terminate any DBE subcontractor and perform that work through its own forces or those of an affiliate without prior written consent of TAM.

TAM implements the DBE policy in accordance with DOT regulations, **and no contract specific DBE participation goal has been established for this contract.** However, Proposers shall cooperate with TAM in meeting its commitments and objectives about ensuring nondiscrimination in the award and administration of Authority Contracts and shall use its best

efforts to ensure that barriers to DBE's participation do not exist. By submitting a Proposal, a Proposer is deemed to have made the foregoing assurance and to be bound by its terms. For DBE questions and assistance, contact Bill Whitney, DBE Officer, at (415) 226-0823 or bwhitney@tam.ca.gov.

SECTION 8 - GENERAL TERMS AND CONDITIONS

- 1. Conflicts of Interest:** The proposer shall disclose any currently known or potential conflicts of interest with TAM, the State Department of Transportation, the Metropolitan Transportation Commission, the County of Marin, and the Federal Highway Administration. The proposer's signature affixed to and dated on the cover letter shall constitute a certification, under penalty of perjury under the laws of the State of California, that the proposer declares that the proposer is not currently, and will not during the performance of any services for TAM, participate in any other work involving a third party with interests currently in conflict or likely to be in conflict with TAM's interests without TAM's approval.
- 2. Amendments to RFQ:** TAM reserves the right to amend or cancel this RFQ by addendum before the final submittal due date. Revisions to the RFQ shall be posted on the TAM web page at least one full business day prior to the deadline for submittal of responses. It is the responsibility of each proposer to check the Web site for any revisions related to this RFQ. The proposers shall each confirm in the transmittal letter of its response the receipt of all addenda issued to this RFQ.
- 3. Non-commitment of TAM:** This RFQ does not commit TAM to award a contract, to pay any costs incurred in the preparation of a response to this request, or to procure or contract for services.
- 4. Confidentiality:** Before award of the contract, all responses to this RFQ will be designated confidential to the extent permitted by the California Public Records Act. After award of the contract (or if not awarded, after rejection of all responses) all responses will be regarded as public records and will be subject to review by the public. Any language purporting to render all or portions of the responses confidential will be regarded as non-effective and will be disregarded.
- 5. Levine Act:** California Government Code § 84308, commonly referred to as the "Levine Act," precludes an officer of a local government agency from participating in the award of a contract if he or she receives any political contributions totaling more than \$250 in the 12 months preceding the pendency of the contract award, and for three months following the final decision, from the person or company awarded the contract.

ATTACHMENT A

Contract Log # C-FY

****SAMPLE****

**CONTRACT BETWEEN
TRANSPORTATION AUTHORITY OF MARIN
AND
_____ CONSULTANTS**

THE ABOVE-REFERENCED CONTRACT (this “**Contract**”) is made and entered into effective as of the XX day of XXXXXXXX, 2025 the “**Effective Date**”) by and between the TRANSPORTATION AUTHORITY OF MARIN a Joint Powers Agency (hereinafter referred to as “**TAM**”), and XXXXXXXX, a XXXX (state) Corporation (hereinafter referred to as “**Consultant**”). TAM and Consultant are sometimes hereinafter referred to collectively as the “**Parties**” or individually as a “**Party**.”

RECITALS:

WHEREAS, TAM manages a variety of transportation projects and programs in Marin County, California; and

WHEREAS, TAM and Consultant desire to enter into an independent contractor relationship whereby Consultant shall perform for TAM certain services as set forth in **Exhibit A** attached hereto and hereby incorporated herein (collectively, the “**Services**,” which shall include, without limitation, all services, materials and other work product provided by Consultant hereunder), subject to the terms and conditions of this Contract;

NOW, THEREFORE, for and in consideration of the foregoing and the mutual covenants set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

1. SERVICES

Scope of Work. Consultant agrees to provide the Services in a timely and professional manner, in accordance with the terms and conditions of this Contract. Subject to Sections 11 and 13, should Consultant retain the assistance of any other person or entity to perform the Services, Consultant agrees and warrants that each such assistant shall execute an agreement containing substantially identical terms as this Contract with regard to the obligations imposed on Consultant under this Contract. Consultant agrees that the scope of the Services may be modified by TAM at any time and for any reason. Significant changes to **Exhibit A** Services may result in price adjustment as shown in **Exhibit B** upon mutual agreement of Parties. Consultant shall use the standard of care in performing the Services, which shall meet or exceed industry standards and Consultant shall complete each project, including any modifications by TAM thereto, on a timely basis.

Business Conflicts. Subject to Consultant’s compliance with the terms and conditions of this Contract, including without limitation Sections 19 and 20 below, Consultant may provide services for other parties, provided that the services provided by Consultant to third parties does not conflict with, and are not detrimental to, the interest of TAM. To ensure that Consultant does not provide services to third parties in a manner that conflicts with, or is detrimental to, the interests of TAM, Consultant shall fully and promptly disclose all possible conflicts to TAM.

2. ACCESS TO LANDS AND DATA

TAM will work with the Consultant to gain access to and enter upon public and private lands as required to perform the Services. TAM shall make available all pertinent data and records for review by Consultant as required to perform the Services.

3. FEES AND PAYMENT SCHEDULE

The method of payment for this contract will be based on a **Cost Plus Fixed Fee**. Consultant will invoice TAM per the schedule shown in **Exhibit B**. The schedule of payments includes all consultant costs and fees including direct and indirect.

If Consultant fails to submit the required deliverable items according to the schedule set forth in the Scope of Services and Schedule, which is attached hereto as "**Exhibit A**," TAM shall have the right to delay payment and/or terminate this Contract accordance with the provisions of Section 21, "Termination/ Force Majeure" of this Contract.

No payment will be made prior to approval of any work, nor for any work performed prior to approval of this contract.

Consultant will be reimbursed, as promptly as fiscal procedures will permit upon receipt by TAM's Contract Manager of itemized invoices in triplicate. Invoices shall be submitted no later than 45-calendar days after the performance of work for which the Consultant is billing. Invoices shall detail the work performed on each milestone and each project as applicable. Invoices shall follow the format stipulated for the approved Consultant Cost Proposal and shall reference this contract number and project title. The final invoice should be submitted within 60-calendar days after completion of the Consultant's work. Invoices shall be mailed to TAM's Contract Manager at the address specified in Section 36 of this Contract.

The total amount payable by TAM shall not exceed the amount stipulated in Section 5 of this Contract. All subcontracts in excess of \$25,000 shall contain the above provisions.

No retainage will be withheld by the TAM from progress payments due the Consultant. Retainage by the Consultant or subconsultants is prohibited, and no retainage will be held by the Consultant from progress payments due subconsultants. Any violation of this provision shall subject the violating Consultant or subconsultant to the penalties, sanctions, and other remedies specified in Section 7108.5 of the California Business and Professions Code. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies otherwise available to the Consultant or subconsultant in the event of a dispute involving late payment or nonpayment by the Consultant or deficient subcontract performance, or noncompliance by a subconsultant. This provision applies to both Disadvantaged Business Enterprise (DBE) and non-DBE consultants or subconsultants. Consultant shall pay its subconsultants within ten (10) calendar days from receipt of each payment made to the Consultant by the TAM.

Consultant shall provide TAM with his/her/its Federal Tax I.D. number prior to submitting the first invoice.

4. COST PRINCIPLES

Consultant agrees that the Contract Cost Principles and Procedures, 48 CFR, Federal Acquisition Regulations System, Chapter 1, Part 31.000 et seq., shall be used to determine the allowability of cost individual items.

Consultant also agrees to comply with federal procedures in accordance with 49 CFR, Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments.

Any costs for which payment has been made to Consultant that are determined by subsequent audit to be unallowable under 48 CFR, Federal Acquisition Regulations System, Chapter 1, Part 31.000 et seq., are subject to repayment by Consultant to TAM.

5. MAXIMUM COST TO TAM

Project as shown in Exhibit A shall be performed for a Cost Plus Fixed Fee, Not to Exceed amount of _____ dollars (\$ _____). Fixed Fee to be set at \$ _____. Payment to be per Exhibit B.

6. TERM OF CONTRACT

This Contract shall commence on the Effective Date on Page 1, and shall terminate _____ (___) months from that date (the "Term").

7. INSURANCE

All required insurance coverages shall be substantiated with a certificate of insurance and must be signed by the insurer or its representative evidencing such insurance to TAM. The general liability policy shall be endorsed naming the TRANSPORTATION AUTHORITY OF MARIN, and Marin Transit as an additional insured. Each certificate of insurance must be current on the Effective Date and if scheduled to lapse prior to the end of the Term, must be automatically updated before final payment may be made to Consultant. Each certificate of insurance and required endorsement shall be furnished to TAM prior to Consultant's commencement of the Services. A waiver of subrogation is also required. Should any of the required insurance policies in this contract be cancelled for any reason or non-renewed, it is the consultant's duty (the Named Insured on the policy) to notify TAM immediately upon receipt of the notice of cancellation or non-renewal from the insurance company or immediately upon consultant's decision to cancel or non-renew the insurance. Said policies shall remain in force through the Term and shall be payable on a per occurrence basis only, except those required by Sections 7.4.a. and 7.4.b. which may be provided on a claims-made basis consistent with the criteria noted therein.

Failure to provide and maintain the insurance required by this Contract shall constitute a material breach of the Contract. In addition to any other available remedies, TAM may suspend payment to Consultant for any Services provided during any time that insurance was not in effect and until such time as Consultant provides adequate evidence that Consultant has obtained the required coverage.

A request for a waiver of any of the following insurance requirements must be set forth on **Exhibit C** attached hereto. A request for a waiver of the insurance requirements must specify whether Consultant is requesting reduced amounts of coverage or requesting to have a particular type of coverage waived entirely.

7.1 GENERAL LIABILITY

Consultant shall maintain a commercial general liability insurance policy in an amount of no less than One Million Dollars (\$1,000,000.00) per occurrence. TAM shall be named as an additional insured on the commercial general liability policy and the Certificate of Insurance shall include an additional endorsement page.

Insurance Reduction or Waiver of Coverage Requested (Exhibit C)

7.2 AUTO LIABILITY

Where the services to be provided under this Contract involve or require the use of any type of vehicle by Consultant in order to perform said services, Consultant shall also provide comprehensive business or commercial automobile liability coverage including non-owned and hired automobile liability in the amount of One Million Dollars (\$1,000,000.00) per occurrence.

Insurance Reduction or Waiver of Coverage Requested (Exhibit C)

7.3 WORKERS' COMPENSATION

Consultant acknowledges that it is aware of the provisions of the Labor Code of the State of California which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and it certifies that it will comply with such provisions before commencing the performance of the work under this Contract. If Consultant has employees, a copy of the certificate evidencing such insurance or a copy of the Certificate of Consent to self-insure shall be provided to TAM prior to commencement of the Services.

Insurance Reduction or Waiver of Coverage Requested (Exhibit C)

7.4 OTHER INSURANCE

Consultant may be required to carry additional insurance based upon the nature of the work to be performed (the Services). For each additional required insurance, a corresponding certificate of insurance must be provided. Claims made policies must have a retroactive date either prior to the Effective Date or the beginning of the work in the Contract. Claims-made coverage must extend a minimum of twelve (12) months beyond completion of the work in the Contract or end of the Term, whichever is later. If coverage is cancelled or non-renewed, and not replaced with another claim made policy with a retroactive date prior to the Effective Date, Consultant must purchase extended reporting coverage for a minimum of twelve (12) months beyond completion of the work in the Contract. Consultant shall maintain a policy limit of not less than One Million Dollars (\$1,000,000) per incident, with a deductible or self-insured retention not to exceed *Twenty Five Thousand Dollars (\$25,000) unless approved by TAM in writing.

7.4.a. Professional Liability Insurance..... **(check box if required)**

*Deductibles greater than Twenty Five Thousand Dollars (\$25,000) require Insurance Reduction/Waiver form **(Exhibit C)** to be completed.

7.4.b. Maritime Insurance..... **(check box if required)**

Consultant's general liability and/or professional liability insurance may be provided, in part, by self-insurance as long as Consultant provides either (1) evidence to TAM that Consultant has segregated amounts in a special insurance reserve fund meeting the contract's insurance requirements and restricted specifically to this project or (2) Consultant's general insurance reserves are adequate to provide the necessary coverage and TAM may conclusively reply thereon, or (3) if Consultant has a deductible of One Hundred Thousand Dollars (\$100,000) or more, TAM shall have the same benefits and protections as if Consultant carried insurance with a third party insurance company, satisfying the insurance requirements within this Contract.

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A-VII. Insurers not licensed in the State of California should have a current A.M. Best's rating of no less than A X.

If Consultant hires subcontractors, Consultant shall require its subcontractors to name Consultant and TAM as additional insured under its commercial general liability insurance policy and Consultant shall require all its subcontractors to furnish separate certificates and endorsements. All insurance for subcontractors shall be subject to all of the requirements stated herein.

8. REPRESENTATIONS AND WARRANTIES / INDEMNIFICATION

8.1 Representations and Warranties. Consultant hereby represents or covenants, as applicable, and warrants that it, and each of its directors officers, employees, members, managers, partners, permitted consultants, contractors, agents, successors, heirs, representatives, beneficiaries, administrators, executors, trustees, affiliates, permitted assigns and/or representatives (each and all, "Consultant" for the purposes of Section 9, 20 and 21): (i) is not a party to any agreement – and does not have any interest or obligation – that will limit, interfere, or otherwise conflict with any provision of this Contract, the performance of the Services or any of Consultant's obligations hereunder; (ii) shall not, during the Term and thereafter, make any commitment or obligation or engage in any activity that will limit, interfere or otherwise conflict with any provision of this Contract, the performance of the Services or any of Consultant's obligations hereunder, without obtaining TAM's express prior written approval; (iii) shall not infringe any and all right, title and interest, including, but not limited to, any and all patent rights, mask work rights, copyrights, moral rights, trade secret rights, trademark rights, including any and all supplements, enhancements, modifications, translations and derivative works thereto, whether now known or hereafter devised, industrial property rights, all other intellectual property rights and property rights of any nature whatsoever, and any and all renewals of

the foregoing (separately and collectively, “**Proprietary Rights**”) of TAM or any party in performing the Services or discharging any of Consultant’s obligations hereunder; (iv) shall, at TAM’s request, during the Term and thereafter, execute and/or verify any proper oath, assignment, application, specification or other document or instrument that TAM, its agents or attorneys (each a “**TAM Party**”), deems desirable or necessary to evidence or carry out this Contract’s terms and conditions and/or compliance therewith; (v) shall use its best efforts to ensure that in performing the Services or fulfilling its obligations hereunder, Consultant does not in any way adversely impact TAM’s reputation or goodwill; (vi) shall avoid deceptive, misleading, or unethical business practices; and (vii) shall comply with all applicable laws and governmental regulations in performing the Services and fulfilling its obligations hereunder.

8.2 Indemnity. Pursuant to CA Civil Code Section 2782.8, Consultant agrees to indemnify, defend and hold TAM, its employees, officers and agents harmless from all liabilities arising out of, pertaining to or relating to the negligence, recklessness or willful misconduct of Consultant.

9. NONDISCRIMINATORY EMPLOYMENT

Consultant and/or any permitted sub-consultant shall not unlawfully discriminate against any individual based on race, color, religion, nationality, sex, sexual orientation, age or condition of disability. Consultant and/or any permitted sub-consultant understands and agrees that Consultant and/or any permitted sub-consultant is bound by and will comply with the nondiscrimination mandates of all Federal, State and local statutes, regulations and ordinances.

10. DRUG-FREE WORKPLACE POLICY

Consultant acknowledges that pursuant to the Federal Drug-Free Workplace Act of 1989, the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited on TAM’s premises. Consultant agrees that any violation of this prohibition by Consultant, its employees, agents or assigns will be deemed a material breach of this Contract.

11. SUBCONTRACTING

Consultant shall not subcontract nor assign any portion of the work required by this Contract without prior express written approval of TAM except for any subcontract work identified and expressly authorized by TAM herein. If Consultant hires a sub-consultant under this Contract, Consultant shall require sub-consultant to provide and maintain insurance coverage identical to what is required of Consultant under this Contract and shall require sub-consultant to name Consultant as additional insured under each policy in accordance with this Contract. It shall be Consultant’s responsibility to collect and maintain current evidence of insurance provided by its sub-consultant and shall forward to TAM evidence of same.

Nothing contained in this Contract or otherwise, shall create any contractual relation between TAM and any subconsultants, and no subconsultant shall relieve Consultant of his/her responsibilities and obligations hereunder. Consultant agrees to be as fully responsible to TAM for the acts and omissions of its subcontractors and of persons either directly or indirectly employed by any of them as it is for the acts and omissions of persons directly employed by Consultant. Consultant’s obligation to pay its subconsultants is an independent obligation from TAM’s obligation to make payments to Consultant.

Any subcontract in excess of \$25,000, entered into as a result of this Contract, shall contain all the provisions stipulated in this Contract to be applicable to subconsultants.

Consultant shall pay its subconsultants within ten (10) calendar days from receipt of each payment made to the Consultant by the TAM.

Any substitution of subconsultants must be approved in writing by TAM in advance of assigning work to a substitute subconsultant.

12. DISADVANTAGED BUSINESS ENTERPRISE (DBE) PARTICIPATION

This Contract is subject to 49 CFR, Part 26 entitled "Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs." Proposers who obtain DBE participation on this Contract will assist Caltrans in meeting its federally mandated statewide overall DBE goal.

If the Contract has an underutilized DBE (UDBE) goal, the Consultant must meet the UDBE goal by committing UDBE participation or document a good faith effort to meet the goal. If a UDBE subconsultant is unable to perform, the Consultant must make a good faith effort to replace him/her with another UDBE subconsultant, if the goal is not otherwise met. A UDBE is a firm meeting the definition of a DBE as specified in 49 CFR and is one of the following groups: African Americans, Native Americans, Asian-Pacific Americans, or Women.

DBEs and other small businesses, as defined in 49 CFR, Part 26 are encouraged to participate in the performance of contracts financed in whole or in part with federal funds. The Consultant, sub-recipient or subconsultant shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Contract. Consultant shall carry out applicable requirements of 49 CFR, Part 26 in the award and administration of US DOT- assisted contracts. Failure by Consultant to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy as the recipient deems appropriate.

Any subcontract entered into as a result of this Contract shall contain all of the provisions of this Section.

To the extent applicable, Federal Transit Administration Contract Provisions in Exhibit D, relevant to this section, will apply.

13. PERFORMANCE OF DBE CONSULTANT AND OTHER DBE SUBCONSULTANTS/SUPPLIERS

A DBE performs a commercially useful function when it is responsible for execution of the work of the Contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible with respect to materials and supplies used on the Contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a commercially useful function, evaluate the amount of work subcontracted, industry practices; whether the amount the firm is to be paid under the Contract is commensurate with the work it is actually performing; and other relevant factors.

A DBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, Agreement, or project through which funds are passed in order to obtain the appearance of DBE participation. In determining whether a DBE is such an extra participant, examine similar transactions, particularly those in which DBEs do not participate.

If a DBE does not perform or exercise responsibility for at least 30 percent of the total cost of its contract with its own work force, or the DBE subcontracts a greater portion of the work of the contract than would be expected on the basis of normal industry practice for the type of work involved, it will be presumed that it is not performing a commercially useful function.

14. DBE RECORDS

Consultant shall maintain records of materials purchased and/or supplied from all subcontracts entered into with certified DBEs. The records shall show the name and business address of each DBE or vendor and the total dollar amount actually paid each DBE or vendor, regardless of tier. The records shall show the date of payment and the total dollar figure paid to all firms. DBE prime consultants shall also show the date of work performed by their own forces along with the corresponding dollar value of the work.

Upon completion of the Contract, a summary of these records shall be prepared and submitted on the form entitled, "Final Report-Utilization of Disadvantaged Business Enterprise (DBE), First-Tier Subcontractors," CEM-2402F (Exhibit 17-F, Chapter 17, of the LAPM), certified correct by the Consultant or the Consultant's authorized representative and shall be furnished to TAM with the final invoice. Failure to provide the summary of DBE payments with the final invoice will result in 25% of the dollar value of the invoice being withheld from payment until the form is submitted. The amount will be returned to the Consultant when a satisfactory "Final Report-Utilization of Disadvantaged Business Enterprises (DBE), First-Tier Subconsultants is submitted to TAM.

15. DBE CERTIFICATION AND DECERTIFICATION STATUS

If a DBE subconsultant is decertified during the life of the Contract, the decertified subconsultant shall notify the Consultant in writing with the date of decertification. If a subconsultant becomes a certified DBE during the life of the Contract, the subconsultant shall notify the Consultant in writing with the date of certification. Any changes should be reported to TAM within 30 days.

16. ASSIGNMENT

The rights, responsibilities and duties under this Contract are personal to Consultant and may not be transferred or assigned without the express prior written consent of TAM. Consultant shall not substitute any personnel for those specifically named in its proposal unless personnel with substantially equal or better qualifications and experience are provided, acceptable to TAM, as is evidenced in writing. Subject to the foregoing restrictions, this Contract shall be binding upon, and inure to the benefit of, the Parties and their respective, heirs, administrators, executors, trustees, successors and permitted assigns.

17. LICENSING AND PERMITS

Consultant shall, at its sole expense, maintain all required government and other regulatory licenses throughout the Term of this Contract. Consultant shall also, at its sole expense, obtain any and all permits which might be required to perform the Services.

18. BOOKS OF RECORD AND AUDIT PROVISION

Consultant shall maintain on a current basis complete books and records relating to this Contract. Such records shall include, but not be limited to, documents supporting all bids, all income and all expenditures. The books and records shall be kept in accordance with generally accepted accounting practices. In addition, Consultant shall maintain detailed payroll records including all subsistence, travel and field expenses, and canceled checks, receipts and invoices for all items. These documents and records shall be retained for at least five (5) years from the end of the Term or earlier termination of this Contract. Consultant will permit TAM, the state, the State Auditor, FHWA, or any duly authorized representative of the federal government to audit all books, accounts or records relating to this Contract or all books, accounts or records of any business entities controlled by Consultant who participated in this Contract in any way. Consultant shall promptly refund to TAM any monies erroneously charged to TAM.

19. CONFIDENTIALITY

19.1 Confidential Information. Consultant agrees that during the Term of this Contract, and thereafter, Consultant shall keep TAM's Confidential Information (as hereinafter defined) confidential and shall not, directly or indirectly, on behalf of Consultant or any third party, use divulge, publish or otherwise disclose or allow to be disclosed any aspect of Confidential Information, except as expressly provided herein solely for TAM's benefit. "**Confidential Information**" means any confidential, trade secret or other proprietary information (in whatever form or media, and whether or not marked as confidential) disclosed by TAM to Consultant under this Contract (including, without limitation, any reproductions or copies thereof), except information that the Consultant clearly proves to TAM: (a) is public knowledge at the time of disclosure, (b) was known by the Consultant before disclosure by TAM, or becomes public knowledge or

otherwise known to the Consultant after such disclosure, other than by breach of a confidentiality obligation, or (c) is independently developed by the Consultant by persons without access to Confidential Information of TAM. Confidential Information shall include, without limitation, the following categories of information: any and all nonpublic information relating to TAM, methodologies, data, databases, know-how, procedures, techniques, tutorials and processes of TAM, services rendered or deliverables furnished by TAM, financial and operational information, and other matters relating to the operations or projects of TAM including traffic data and traffic studies, information relating to actual or potential clients and/or client lists, client requirements, forecasts and projections, accounting, finance or tax information, pricing information, and the terms of this Contract.

19.2 Protection and Disclosure of Confidential Information. The Consultant shall exercise at least the same degree of care and protection with respect to the Confidential Information of TAM that it exercises with respect to its own Confidential Information, but in no event shall the Consultant exercise less than a reasonable standard of care, and in addition shall not directly or indirectly disclose, copy, distribute, republish or allow any third party to have access to any Confidential Information of TAM except to the extent expressly permitted in writing by TAM. Notwithstanding the above, the Consultant may disclose Confidential Information of TAM to the employees and agents of the Consultant who have a bona fide need to know and to third parties if so required by law (including court order or subpoena), provided that such disclosure is made in accordance with the terms of Section 20.3. Consultant acknowledges that breach of this Section will cause irreparable harm to TAM entitling TAM to injunctive relief, among other remedies.

19.3 Notification Obligation. If the Consultant becomes aware of any unauthorized use or disclosure of the Confidential Information, the Consultant shall promptly and fully notify TAM of all facts known to it concerning such unauthorized use or disclosure. In addition, if the Consultant or any of its employees or agents are requested or required (by oral questions, interrogatories, requests for information or documents in legal proceedings, subpoena, civil investigative demand or other similar process) to disclose any of the Confidential Information, the Consultant shall not disclose the Confidential Information without providing TAM at least twenty-four (24) hours prior written notice of any such request or requirement so that TAM may seek a protective order or other appropriate remedy and/or waive compliance with the provisions of this Contract. Notwithstanding the foregoing, the Consultant shall exercise its best efforts to preserve the confidentiality of the Confidential Information including, without limitation, by cooperating with TAM to obtain an appropriate protective order or other reliable assurance that confidential treatment will be accorded the Confidential Information by such tribunal.

19.4 Restricted Storage and Access. Consultant shall access Confidential Information that is stored electronically only via TAM's computers, and shall access Confidential Information only while Consultant is at TAM's offices, unless otherwise expressly authorized by TAM in writing. If Consultant wishes to store Confidential Information electronically, Consultant may only store such Confidential Information on TAM's computers located at TAM's offices. Under no circumstances shall Consultant copy Confidential Information onto non-TAM computers or other equipment not owned by TAM without the express prior written consent of TAM. Consultant shall not remove any Confidential Information from TAM's offices without the express prior written consent of TAM. TAM reserves the right, in its sole discretion, to revoke any authorization or consent given hereunder.

19.5 Mutual Cooperation. Each Party shall notify and cooperate with the other Party in enforcing TAM's rights if such Party becomes aware of a threatened or actual violation of TAM's confidentiality requirements by a third party. Upon reasonable request by TAM, the Consultant shall provide copies of the confidentiality agreements entered into with its agents or independent contractors relating to this Contract.

19.6 Return of Confidential Information. Upon the termination or expiration and non-renewal of this Contract or upon the request of TAM, Consultant shall either promptly return the Confidential Information, and any and all reproductions and copies thereof, to TAM or destroy all such Confidential Information, and Consultant shall sign an affidavit certifying to TAM under penalty of perjury that all such Confidential Information in Consultant's possession has been returned or destroyed.

20. WORKS FOR HIRE

20.1 Work Product. Consultant acknowledges and agrees that the Proprietary Rights in and to any and all studies, deliverables, inventions, ideas, improvements, know-how, designs and discoveries, whether or not patentable and whether or not reduced to practice, patents, trademarks, trade secrets, original works of authorship (including, but not limited to, all algorithms, HTML, Java files and associated data, graphic materials, illustrations, creative writings, written information, photographs, product documentation, flow charts, databases, developments, processes, techniques, formulae, technology, drawings, marketing, advertising, product plans, reports, specifications, technical data, any computer program (source code and object code), research, schematics, prototypes, models and products) made, conceived and/or created by Consultant, whether solely or jointly with others that: (i) is developed in whole or in part on TAM's time or using TAM's computers, equipment, supplies, facilities or Confidential Information; (ii) results from, or is suggested by, any task or project assigned to Consultant under this Contract, the Services or the fulfillment of Consultant's obligations under this Contract; or (iii) relates in any manner to the actual or reasonably anticipated project, work, research and/or operations of TAM (separately and collectively, "**Work Product**"), is solely owned by, and belongs to, TAM. Consultant expressly acknowledges and agrees that all such works of authorship are "works made for hire" as defined in the U.S. Copyright Act and belong exclusively to TAM to the fullest extent permitted under applicable law. Consultant hereby waives and shall not assert any and all moral rights Consultant may have to such works of authorship, which may inure to Consultant under the laws of any nation.

20.2 Assignment of Work Product. If Work Product, or any part thereof, is for any reason deemed not to constitute works made for hire owned by TAM, or if Consultant should, by operation of law or otherwise, be deemed to retain any rights thereto, for good and valuable consideration, including without limitation the consideration recited herein, Consultant hereby grants, conveys, bargains, sells, assigns, transfers and delivers to TAM, its successors and assigns, any and all of Consultant's Proprietary Rights, in and to the Work Product. Consultant also expressly assigns to TAM all legal rights necessary for TAM to pursue any legal action against any third party arising out of or in connection with the Work Product assigned hereunder. Consultant shall cause Consultant's permitted successors and assigns to assign all Proprietary Rights in Work Product to TAM to the maximum extent permitted by law. Consultant covenants not to personally, or cause any third party to, infringe any of TAM's Proprietary Rights in or to the Work Product. Upon the request of TAM, its agents or attorneys (each a "**TAM Party**"), Consultant shall promptly execute further written assignments and any additional document a TAM Party, in its sole and absolute discretion, deems necessary to effect, record and/or perfect the transfer of rights, title and interest in and to the Work Product.

20.3 Disclosure of Work Product. Consultant agrees that in connection with any Work Product Consultant shall: (i) promptly disclose such Work Product in writing to TAM (which shall be received in confidence by TAM), to permit TAM to claim rights to which it may be entitled under this Contract, and (ii) if TAM requests, promptly execute any additional written assignment of title to TAM for any Work Product required to be assigned by this Section 20 and Consultant shall preserve any such Work Product as Confidential Information of TAM. If Consultant believes that Consultant is entitled to ownership, either in whole or in part, of any Work Product, Consultant shall immediately so notify TAM's Board in writing. Consultant shall preserve all Work Product as Confidential Information of TAM. Consultant expressly agrees and covenants to keep and maintain adequate and current written records of all Work Product. The records will be in the form of notes, sketches, drawings and any other format that may be specified by TAM and shall at all times be available to, and remain the sole property of, TAM.

20.4 Termination of Proprietary Rights. TAM and Consultant hereby acknowledge that certain Proprietary Rights in and to Work Product assigned to TAM hereunder may, under certain circumstances and after the assignment thereof to TAM, be terminated by Consultant in accordance with the provisions of the Copyright Act. The Parties further acknowledge that it is their intention that, if any such assignments are terminated by Consultant, TAM shall have the exclusive rights of first and last refusal with respect thereto, which right of first and last refusal shall be exercised as follows:

Until the expiration of a period of sixty (60) days following TAM's receipt of a valid notice of termination with respect to any such Proprietary Rights, Consultant shall not negotiate with any third party with respect to the grant, sale, assignment, license, or other transfer of the Work Product thereof. During said sixty (60) day period, Consultant shall negotiate in good faith and exert best efforts to reach an agreement with TAM for TAM's acquisition of such Proprietary Rights and/or Work Product. If TAM and Consultant fail to reach agreement by the end of said sixty (60) day period, Consultant shall be free to negotiate with third parties for the grant, sale, assignment, license, or other transfer of such Proprietary Rights and/or Work Product, only for terms and conditions more favorable to Consultant than those last offered by TAM.

If Consultant receives such a bona fide offer from a third party, which offer Consultant wishes to accept, Consultant shall notify TAM of the terms therein in writing and TAM shall have ten (10) days from its receipt thereof to notify Consultant that it desires to acquire the Proprietary Rights and/or Work Product subject to the terms of such offer. If TAM so notifies Consultant, such copyrights shall automatically vest in TAM and Consultant shall enter into a written agreement with TAM reflecting such terms and conditions promptly after Consultant's receipt of such notice. If TAM does not so notify Consultant and Consultant does not accept such third party offer, the foregoing procedures shall apply to any further offers which Consultant receives and wishes to accept, including any offer containing identical terms and conditions rejected by Consultant, whether received by Consultant from the same or from a different third party.

20.5 Patent, Trademark and Copyright Registrations. Consultant agrees to assist any TAM Party, at TAM's expense, to secure TAM's rights in the Work Product and any Proprietary Rights relating thereto in any and all countries, including the disclosure to TAM of all pertinent information, written records and data with respect thereto, the execution of all applications, specifications, oaths, assignments and other instruments that a TAM Party, in its sole discretion, deems necessary to apply for and obtain such rights. Upon the request of a TAM Party, Consultant shall promptly execute any and all applications for U.S. or foreign patent, trademark or copyright registrations regarding Work Product and execute any additional documents and do all other lawfully permitted acts to further the prosecution and issuance letters of registration thereon. Consultant hereby irrevocably appoints each TAM Party as Consultant's attorney-in-fact for the purpose of executing such registration applications, assignments and additional documents in Consultant's name and stead and with the same legal force and effect as if executed by Consultant.

21. TERMINATION / FORCE MAJEURE

- A. If Consultant fails to properly provide in any manner the Services required under this Contract or otherwise fails to comply with the terms of this Contract or violates any ordinance, regulation or other law which applies to its performance hereunder, TAM may terminate this Contract by giving five (5) calendar days written notice to Consultant.
- B. Nonperformance of either Party shall be excused to the extent that performance is rendered impossible by strike, fire, flood, governmental acts or orders or restrictions, failure of suppliers, or any other reason where failure to perform is beyond the control and not caused by the negligence of the nonperforming Party.
- C. Either Party may terminate this Contract for any reason by giving thirty (30) calendar days written notice to the other Party. Notice of termination shall be by written notice to the other Party and be sent in accordance with Section 36.
- D. In the event of termination not due to the fault of Consultant, Consultant shall be paid for Services properly performed to the date of termination in accordance with the terms of this Contract so long as proof of required insurance is provided for the periods covered in the Contract including any and all amendments thereto. Any unpaid Fixed Fee amounts will not be paid.
- E. Upon receipt of termination notice, Consultant shall commence and perform, with diligence, all actions necessary on the part of Consultant to effect the termination of this Contract on the date specified by

TAM and to minimize the liability of Consultant and TAM to third parties as a result of termination. All such actions shall be subject to the prior approval of TAM. Such actions shall include, without limitation:

- i. Halting the performance of the Services and other work under this Consultant on the date(s) and in the manner specified by TAM.
 - ii. Not placing any further orders or subcontracts for materials, services, equipment or other items.
 - iii. Terminating all existing orders and subcontracts.
 - iv. At TAM's direction, assigning to TAM any or all of Consultant's right, title, and interest under the orders and subcontracts terminated. Upon such assignment, TAM shall have the right, in its sole discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts.
 - v. Subject to TAM's approval, settling all outstanding liabilities and all claims arising out of the termination of orders and subcontracts.
 - vi. Completing performance of any Services or work that TAM designates to be completed prior to the date of termination specified by TAM.
 - vii. Taking such action as may be necessary, or as TAM may direct, for the protection and preservation of any property related to this Contract which is in the possession of Consultant and in which TAM has or may acquire an interest.
- F. In no event shall TAM be liable for costs incurred by Consultant or any of its sub-consultants after the termination date specified by TAM, except for those costs associated in compliance with the immediately preceding subsection (E). Non-recoverable costs include, but are not limited to, anticipated profits on this Contract, post-termination employee salaries, post-termination administrative expenses, post-termination overhead or unabsorbed overhead, attorneys' fees or other costs relating to the prosecution of a claim or lawsuit, prejudgment interest, or any other expense which is not reasonable or authorized under subsection (E).
- G. TAM's payment obligation under this Section shall survive termination of this Contract
- F To the extent applicable, Federal Transit Administration Contract Provisions in Exhibit D, relevant to this section, will apply.

22. RIGHTS AND DUTIES UPON TERMINATION OR EXPIRATION

- A. Sections 19, 20, and each other provision of this Contract that may be reasonably construed to survive termination hereof, shall survive termination or expiration of this Contract for any reason.
- B. Subject to the immediately preceding subsection (A), upon termination of this Contract prior to the expiration of the Term specified in Section 6, this Contract shall terminate and be of no further force or effect. Consultant shall transfer title to TAM, and deliver in the manner, at the times, and to the extent, if any, directed by TAM, any work in progress, completed work, supplies, equipment, and other materials produced as part of, or acquired in connection with the performance of this Contract, and any completed or partially completed work which, if this Contract had been completed, would have been required to be furnished to TAM. This subsection shall survive termination of this Contract.

23. RELATIONSHIP BETWEEN THE PARTIES

It is expressly understood that in the performances of the Services herein, Consultant, and the agents and employees thereof, shall act in an independent capacity and as an independent contractor and not as officers, employees or agents of TAM. Consultant shall be solely responsible to pay all required taxes, including but not limited to, all payroll withholding taxes, social security, and worker's compensation arising from or relating to Services. Consultant or any agent or employee of Consultant is liable for the acts or omissions of itself, its employees and its agents. Nothing in this Contract shall be construed as creating an employment or agency relationship between TAM and Consultant or any agent or employee of Consultant.

Any terms in this Contract referring to direction from TAM shall be construed as providing for direction as to policy and the result of Consultant's work only, and not as to the means by which such a result is obtained. TAM does not retain the right to control the means or the method by which Consultant performs work under this Contract.

24. PAYMENT OF TAXES AND OTHER EXPENSES

Should TAM, in its discretion, or a relevant taxing authority such as the Internal Revenue Service or the State Employment Development Division, or both, determine that Consultant is an employee for purposes of collection of any employment taxes, the amounts payable under this Contract shall be reduced by amounts equal to both the employee and employer portions of the tax due (and offsetting any credits for amounts already paid by Consultant which can be applied against this liability). TAM shall then forward those amounts to the relevant taxing authority.

Should a relevant taxing authority determine a liability for past services performed by Consultant for TAM, upon notification of such fact by TAM, Consultant shall promptly remit such amount due or arrange with TAM to have the amount due withheld from future payments to Consultant under this Contract (again, offsetting any amounts already paid by Consultant which can be applied as a credit against such liability).

A determination of employment status pursuant to the preceding two paragraphs shall be solely for the purposes of the particular tax in question, and for all other purposes of this Contract, Consultant shall not be considered an employee of TAM. Notwithstanding the foregoing, should any court, arbitrator, or administrative authority determine that Consultant is an employee for any other purpose, then Consultant agrees to a reduction in TAM's financial liability so that TAM's total expenses under this Contract are not greater than they would have been had the court, arbitrator, or administrative authority determined that Consultant was not an employee.

25. PAYMENT DOES NOT IMPLY ACCEPTANCE OF WORK

The granting of any payment by TAM, or the receipt thereof by Consultant, shall in no way lessen the liability of Consultant to replace unsatisfactory work, equipment, or materials, and thereafter the unsatisfactory character of such work, equipment, components, or workmanship that do not conform to the requirements of this Contract may be rejected by TAM and in such case must be replaced by Consultant without delay.

26. SUBMITTING FALSE CLAIMS AND MONETARY PENALTIES

Pursuant to Government Code sections 12650 et seq., any Consultant, sub-consultant or consultant who submits a false claim shall be liable to TAM for three times the amount of damages that TAM sustains because of the false claim. A Consultant, sub-consultant or consultant who submits a false claim shall also be liable to TAM for the costs of a civil action brought to recover any of those penalties or damages, and may be liable to TAM for a civil penalty for up to \$10,000 for each false claim. A Consultant, sub-consultant or consultant will be deemed to have submitted a false claim to TAM if the Consultant, sub-consultant or consultant: (a) knowingly presents or causes to be presented to an officer or employee of TAM, a false claim for payment or approval; (b) knowingly makes, uses or causes to be made or used a false record or statement to get a false claim paid or approved by TAM; (c) conspires to defraud TAM by getting a false claim allowed or paid by TAM; (d) has possession, custody, or control of public property or money used or to be used by TAM and knowingly delivers or causes to be delivered less property than the amount for which the person receives a certificate or receipt; (e) is authorized to make or deliver a document certifying receipt of property used or to be used by TAM and knowingly makes or delivers a receipt that falsely represent the property used or to be used; (f) knowingly makes, uses, or causes to be made or used a false record or statement to conceal, avoid, or decrease an obligation to pay or transmit money or property to TAM; (g) is a beneficiary of an inadvertent submission of a false claim to TAM, subsequently discovers the falsity of the claim, and fails to disclose the false claim to TAM within a reasonable time after discovery of the false claim.

27. MODIFICATION OF CONTRACT

This Contract may not be modified, nor may compliance with any of its terms be waived, except by written instrument executed by duly authorized officers or representatives of both Parties and approved in the same manner as this Contract.

28. ENTIRE AGREEMENT

This Contract sets forth the entire agreement between the Parties, and supersedes all other oral or written agreements, understandings and provisions between them, concerning the subject matter hereof. This Contract may be modified only as provided in Section 27.

29. SEVERABILITY

Should the application of any provision of this Contract to any particular facts or circumstances be found by a court of competent jurisdiction to be invalid or unenforceable, then (a) the validity of other provisions of this Contract shall not be affected or impaired thereby, and (b) such invalid or unenforceable provision shall be enforced to the maximum extent possible so as to effect the intent of the Parties and shall be reformed without further action by the Parties to the extent necessary to make such provision valid and enforceable.

To the extent applicable, Federal Transit Administration Contract Provisions in Exhibit D, relevant to this section, will apply.

30. JURISDICTION AND VENUE / LEGAL EXPENSES

This Contract shall be construed in accordance with the laws of the State of California, without reference to its conflict of laws principles. The Parties agree that exclusive venue for any dispute arising hereunder shall be in a state court located in Marin County, California, or federal court located in San Francisco, California, and the Parties hereby consent to the exclusive jurisdiction of such courts. If TAM initiates legal action to enforce its rights under this Agreement, TAM shall be entitled, in addition to all other remedies available under law, to recover its legal expenses incurred in connection therewith, including without limitation reasonable attorney's and expert witness fees.

31. LIABILITY OF TAM

TAM's payment of obligations under this Contract shall be limited to the payment of the compensation provided for in Sections 3 and 5 of this Contract. NOTWITHSTANDING ANY OTHER PROVISION OF THIS CONTRACT, IN NO EVENT SHALL TAM BE LIABLE, REGARDLESS OF WHETHER ANY CLAIM IS BASED ON CONTRACT OR TORT, FOR ANY SPECIAL, PUNITIVE, CONSEQUENTIAL INDIRECT OR INCIDENTAL DAMAGES, INCLUDING, BUT NOT LIMITED TO LOST PROFITS, ARISING OUT OF OR IN CONNECTION WITH THIS CONTRACT OR THE SERVICES PERFORMED IN CONNECTION WITH THIS CONTRACT, EVEN IF TAM HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

32. COMPLIANCE WITH APPLICABLE LAWS

The Consultant shall comply with any and all Federal, State and local laws and resolutions: including, but not limited to the Covenant Against Contingent Fees (below), County of Marin Nuclear Free Zone and Living Wage Ordinance Copies of any of the above-referenced local laws and resolutions may be secured from the Contract Manager referenced in Section 36 (NOTICES). In addition, the following NOTICES may apply:

1. Pursuant to California Franchise Tax Board regulations, TAM will automatically withhold 7% from all payments made to vendors who are non-residents of California.
2. Consultant agrees to meet all applicable program access and physical accessibility requirements under State and Federal laws as may apply to services, programs or activities for the benefit of the public.

3. For Contracts involving any Federal Transit Administration grant funds, Exhibit D must be attached. Exhibit D provides all Federal Transit Administration Contract Provisions relevant to this Contract.

33. COVENANT AGAINST CONTINGENCY FEES

Consultant warrants that it has not employed or retained any company or person, other than a bona fide employee working for Consultant; to solicit or secure this Contract; and that it has not paid or agreed to pay any company or person other than a bona fide employee, any fee, commission, percentage, brokerage fee, gift, or any other consideration, contingent upon or resulting from the award, or formation of this Contract. For breach or violation of this warranty, the local agency shall have the right to annul this Contract without liability, or at its discretion; to deduct from the Contract price or consideration, or otherwise recover the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.

34. ADMINISTRATIVE REMEDY FOR AGREEMENT INTERPRETATION / MISCELLANEOUS

Should any question arise as to the meaning and intent of this Contract, the question shall, prior to any other action or resort to any other legal remedy, be referred to the Executive Director of TAM, who shall decide the true meaning and intent of the Contract. This Contract may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Headings used in this Contract are for reference purposes only and in no way define, limit, construe or describe the scope or extent of such section or in any way affect this Contract. This Contract shall be construed within its fair meaning and no inference shall be drawn against the drafting Party in interpreting this Contract. Whenever used in this Contract, the singular shall include the plural, the plural shall include the singular, and the neuter gender shall include the male and female as well as a trust, firm, corporation, or other legal entity all as the context and meaning of this Contract may require.

35. DEBARMENT AND SUSPENSION CERTIFICATION

The Consultant's signature affixed herein shall constitute a certification under penalty of perjury under the laws of the State of California that the Consultant has complied with Title 49, Code of Federal Regulations, Part 29, Debarment and Suspension Certificate, which certifies that he/she or any person associated therewith in the capacity of owner, partner, director, officer, or manager, is not currently under suspension, debarred, voluntarily excluded, or determined ineligible by any federal agency within the past three (3) years; does not have a proposed debarment pending; and has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud of official misconduct within the past three (3) years. Any exceptions to this certification must be disclosed to the TAM, including being attached to any proposal.

Exceptions will not necessarily result in denial of recommendation for award, but will be considered in determining Consultant responsibility. Disclosures must indicate to whom the exceptions apply, initiating agency, and dates of action.

To the extent applicable, Federal Transit Administration Contract Provisions in Exhibit D, relevant to this section, will apply.

36. NOTICES

All notices permitted or required under this Contract shall be in writing and shall be sent by registered or certified mail, or by FedEx or other similar overnight courier, to the Parties at their respective addresses below. A notice sent by registered or certified mail shall be deemed given five (5) business days after deposited in the mail, or one (1) business day after being sent by FedEx or similar over night courier for next day delivery. This Contract shall be managed and administered on TAM's behalf by the Contract Manager named below. All invoices shall be submitted and approved by this Contract Manager and all notices shall be given to TAM at the following location:

Contract Manager: _____
Location: 900 5th Avenue, Suite 100
San Rafael, CA 94901
Contact: _____

Notices shall be given to Consultant at the following address:

Consultant: _____
Location: _____
Contact: _____

37. ACKNOWLEDGEMENT OF EXHIBITS

CONSULTANT'S INITIALS

- EXHIBIT A.** **Scope of Services and Schedule** _____
- EXHIBIT B.** **Consultant Cost Proposal** _____
- EXHIBIT C.** **Insurance Reduction/Waiver** _____
- EXHIBIT D.** **Federal Transit Administration
Contract Provisions** _____

IN WITNESS WHEREOF, the Parties have executed this Contract on the Effective Date.

TRANSPORTATION AUTHORITY OF MARIN:

CONSULTANT:

By: _____
Anne Richman, Executive Director

By: _____
Authorized Signature

Name (Print)

Title

Company Name

Federal Employer ID Number or SSN

EXHIBIT "A"

Scope of Services will be everything necessary to provide for a Caltrans approved PID and PAED for the Southbound US-101 Part Time Transit Lanes. Product is to include acceptance of preferred alternative by project stakeholders including TAM and Caltrans.

EXHIBIT "B"

Rates to be determined by current salary multiplied by Indirect Cost Rate. ICR to be calculated for previous year or year prior to previous year for invoices through April. ICR should be audited by outside accounting firm. ICR can be based on Caltrans Safe Harbor Program for life of the contract. Subcontracts that will bill under \$25,000 for the life of the contract may use their published Fee Schedule. All invoiced costs including any reimbursable must be provided on a cost basis with calculated back-up.

Fixed Fee of \$_____ shall be paid according to the following schedule. Should the contract terminate before full scope is complete, any remaining Fixed Fee shall be cancelled.

EXHIBIT "C"

INSURANCE REDUCTION/WAIVER (if applicable)

CONSULTANT: _____

CONTRACT TITLE: _____

This statement shall accompany all requests for a reduction/waiver of insurance requirements. Please check the box if a waiver is requested or fill in the reduced coverage(s) where indicated below:

	<i>Check Where Applicable</i>	<i>Requested Limit Amount</i>	<i>TAM Use Only</i>
General Liability Insurance	<input type="checkbox"/>	\$	
Automobile Liability Insurance	<input type="checkbox"/>	\$	
Workers' Compensation Insurance	<input type="checkbox"/>		
Professional Liability Deductible	<input type="checkbox"/>	\$	

Consultant - please set forth the reasons for the requested reductions or waiver.

TAM Contract Manager Signature: _____

Date: _____

EXHIBIT "D"

FTA GRANT CONTRACT PROVISIONS PROFESSIONAL SERVICES

A. ACCESS TO RECORDS AND REPORTS

1. Record Retention. The Contractor will retain and will require its subcontractors of all tiers to retain, complete and readily accessible records related in whole or in part to the contract, including, but not limited to, data, documents, reports, statistics, leases, subcontracts, arrangements, other third party Contracts of any type, and supporting materials related to those records. (a) A bid guarantee from each bidder equivalent to five percent of the bid price. The "bid guarantee" must consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of the bid, execute such contractual documents as may be required within the time specified.
2. Retention Period. The Contractor agrees to comply with the record retention requirements in accordance with 2 C.F.R. § 200.334. The Contractor shall maintain all books, records, accounts and reports required under this Contract for a period of at not less than three (3) years after the date of termination or expiration of this Contract, except in the event of litigation or settlement of claims arising from the performance of this Contract, in which case records shall be maintained until the disposition of all such litigation, appeals, claims or exceptions related thereto.
3. Access to Records. The Contractor agrees to provide sufficient access to FTA and its contractors to inspect and audit records and information, including such records and information the contractor or its subcontractors may regard as confidential or proprietary, related to performance of this contract in accordance with 2 CFR § 200.337.
4. Access to the Sites of Performance. The Contractor agrees to permit FTA and its contractors access to the sites of performance under this contract in accordance with 2 CFR § 200.337.

B. AMERICANS WITH DISABILITIES ACT (ADA)

The contractor agrees to comply with all applicable requirements of section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, which prohibits discrimination on the basis of handicaps, with the Americans with Disabilities Act of 1990 (ADA), as amended, 42 U.S.C. §§ 12101 et seq., which requires that accessible facilities and services be made available to persons with disabilities, including any subsequent amendments to that Act, and with the Architectural Barriers act of 1968, as amended, 42 U.S.C. §§ 4151 et seq., which requires that buildings and public accommodations be accessible to persons with disabilities, including any subsequent amendments to that Act. In addition, the contractor agrees to comply with any and all applicable requirements issued by the FTA, DOT, DOJ, U.S. GSA, U.S. EEOC, U.S. FCC, any subsequent amendments thereto and any other nondiscrimination statute(s) that may apply to the Project.

C. CHANGES TO FEDERAL REQUIREMENTS

Federal requirements that apply to the Recipient or the Award, the accompanying Underlying Agreement, and any Amendments thereto may change due to changes in federal law, regulation, other requirements, or guidance, or changes in the Recipient's Underlying Agreement including any information incorporated by reference and made part of that Underlying Agreement; and

Applicable changes to those federal requirements will apply to each Third Party Agreement and parties thereto at any tier.

D. CIVIL RIGHTS LAWS AND REGULATIONS

The following Federal Civil Rights laws and regulations apply to all contracts.

The Contractor and any subcontractor agree to comply with all the requirements prohibiting discrimination on the basis of race, color, or national origin of the Title VI of the Civil Rights Action of 1964, as amended 52 U.S.C

2000d, and U.S. DOT regulation "Nondiscrimination in Federally-Assisted Programs of the Department of Transportation – Effectuation of the Title VI of the Civil rights Act, "49 C.F. R. Part 21 and any implementing requirement FTA may issue.

1. **Federal Equal Employment Opportunity (EEO) Requirements.** These include, but are not limited to:
 - a) Nondiscrimination in Federal Public Transportation Programs. 49 U.S.C. § 5332, covering projects, programs, and activities financed under 49 U.S.C. Chapter 53, prohibits discrimination on the basis of race, color, religion, national origin, sex (including sexual orientation and gender identity), disability, or age, and prohibits discrimination in employment or business opportunity.
 - b) Prohibition against Employment Discrimination. Title VII of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000e, and Executive Order No. 11246, "Equal Employment Opportunity," September 24, 1965, as amended, prohibit discrimination in employment on the basis of race, color, religion, sex, or national origin.
2. **Nondiscrimination on the Basis of Sex.** Title IX of the Education Amendments of 1972, as amended, 20 U.S.C. § 1681 et seq. and implementing Federal regulations, "Nondiscrimination on the Basis of Sex in Education Programs or Activities Receiving Federal Financial Assistance," 49 C.F.R. part 25 prohibit discrimination on the basis of sex.
3. **Nondiscrimination on the Basis of Age.** The "Age Discrimination Act of 1975," as amended, 42 U.S.C. § 6101 et seq., and Department of Health and Human Services implementing regulations, "Nondiscrimination on the Basis of Age in Programs or Activities Receiving Federal Financial Assistance," 45 C.F.R. part 90, prohibit discrimination by participants in federally assisted programs against individuals on the basis of age. The Age Discrimination in Employment Act (ADEA), 29 U.S.C. § 621 et seq., and Equal Employment Opportunity Commission (EEOC) implementing regulations, "Age Discrimination in Employment Act," 29 C.F.R. part 1625, also prohibit employment discrimination against individuals age 40 and over on the basis of age.
4. **Federal Protections for Individuals with Disabilities.** The Americans with Disabilities Act of 1990, as amended (ADA), 42 U.S.C. § 12101 et seq., prohibits discrimination against qualified individuals with disabilities in programs, activities, and services, and imposes specific requirements on public and private entities. Third party contractors must comply with their responsibilities under Titles I, II, III, IV, and V of the ADA in employment, public services, public accommodations, telecommunications, and other provisions, many of which are subject to regulations issued by other Federal agencies.

E. Civil Rights and Equal Opportunity

TAM is an Equal Opportunity Employer. As such, TAM agrees to comply with all applicable Federal civil rights laws and implementing regulations. Apart from inconsistent requirements imposed by Federal laws or regulations, TAM agrees to comply with the requirements of 49 U.S.C. § 5323(h) (3) by not using any Federal assistance awarded by FTA to support procurements using exclusionary or discriminatory specifications. Under this Contract, the Contractor shall at all times comply with the following requirements and shall include these requirements in each subcontract entered into as part thereof.

1. **Nondiscrimination.** In accordance with Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, religion, national origin, sex, disability, or age. In addition, the Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.
2. **Race, Color, Religion, National Origin, Sex.** In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e et seq., and Federal transit laws at 49 U.S.C. § 5332, the Contractor agrees to comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. chapter 60, and Executive Order No. 11246, "Equal Employment Opportunity in Federal Employment," September 24, 1965, 42 U.S.C. § 2000e note, as amended by any later Executive

Order that amends or supersedes it, referenced in 42 U.S.C. § 2000e note. The Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, national origin, or sex (including sexual orientation and gender identity). Such action shall include, but not be limited to, the following: employment, promotion, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

3. **Age.** In accordance with the Age Discrimination in Employment Act, 29 U.S.C. §§ 621-634, U.S. Equal Employment Opportunity Commission (U.S. EEOC) regulations, "Age Discrimination in Employment Act," 29 C.F.R. part 1625, the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6101 et seq., U.S. Health and Human Services regulations, "Nondiscrimination on the Basis of Age in Programs or Activities Receiving Federal Financial Assistance," 45 C.F.R. part 90, and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the Contractor agrees to comply with any Implementing requirements FTA may issue.
4. **Disabilities.** In accordance with section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, the Americans with Disabilities Act of 1990, as amended, 42 U.S.C. § 12101 et seq., the Architectural Barriers Act of 1968, as amended, 42 U.S.C. § 4151 et seq., and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against individuals on the basis of disability. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.
5. **Promoting Free Speech and Religious Liberty.** The Contractor shall ensure that Federal funding is expended in full accordance with the U.S. Constitution, Federal Law, and statutory and public policy requirements: including, but not limited to, those protecting free speech, religious liberty, public welfare, the environment, and prohibiting discrimination.

F. CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

The Contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act (42 U.S.C. § 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. § 1251-1387). Violations must be reported to FTA and the Regional Office of the Environmental Protection Agency. The following applies for contracts of amounts in excess of \$150,000:

Clean Air Act

- (1) The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
- (2) The contractor agrees to report each violation to TAM and understands and agrees that TAM will, in turn, report each violation as required to assure notification to TAM, Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.
- (3) The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FTA.

Federal Water Pollution Control Act

- (1) The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.
- (2) The contractor agrees to report each violation to TAM and understands and agrees that TAM will, in turn, report each violation as required to assure notification to TAM, Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.
- (3) The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FTA."

G. DEBARMENT AND SUSPENSION

The Contractor shall comply and facilitate compliance with U.S. DOT regulations, "Nonprocurement

Suspension and Debarment," 2 C.F.R. part 1200, which adopts and supplements the U.S. Office of Management and Budget (U.S. OMB) "Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement)," 2 C.F.R. part 180. These provisions apply to each contract at any tier of \$25,000 or more, and to each contract at any tier for a federally required audit (irrespective of the contract amount), and to each contract at any tier that must be approved by an FTA official irrespective of the contract amount. As such, the Contractor shall verify that its principals, affiliates, and subcontractors are eligible to participate in this federally funded contract and are not presently declared by any Federal department or agency to be:

- (1) Debarred from participation in any federally assisted Award;
- (2) Suspended from participation in any federally assisted Award;
- (3) Proposed for debarment from participation in any federally assisted Award;
- (4) Declared ineligible to participate in any federally assisted Award;
- (5) Voluntarily excluded from participation in any federally assisted Award; or
- (6) Disqualified from participation in any federally assisted Award.

By signing and submitting its bid or proposal, the bidder or proposer certifies as follows:

The certification in this clause is a material representation of fact relied upon by TAM. If it is later determined by TAM that the bidder or proposer knowingly rendered an erroneous certification, in addition to remedies available to TAM, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The bidder or proposer agrees to comply with the requirements of 2 C.F.R. part 180, subpart C, as supplemented by 2 C.F.R. part 1200, while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

H. DISADVANTAGED BUSINESS ENTERPRISE (DBE)

It is the policy of TAM and the United States Department of Transportation ("DOT") that Disadvantaged Business Enterprises ("DBE's"), as defined herein and in the Federal regulations published at 49 C.F.R. part 26, shall have an equal opportunity to participate in DOT-assisted contracts.

The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 C.F.R. part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as TAM deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible. 49 C.F.R. § 26.13(b).

Prime contractors are required to pay subcontractors for satisfactory performance of their contracts no later than 30 days from receipt of each payment TAM makes to the prime contractor. 49 C.F.R. § 26.29(a).

Finally, for contracts with defined DBE contract goals, the contractor shall utilize the specific DBEs listed unless the contractor obtains TAM's written consent; and that, unless TAM's consent is provided, the contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE. 49 C.F.R. § 26.53(f) (1).

I. ENERGY CONSERVATION

The contractor agrees to comply with mandatory standards and policies relating to energy efficiency, which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. § 6201).

J. EQUAL EMPLOYMENT OPPORTUNITY

During the performance of this contract, the contractor agrees as follows:

- (1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.
- (2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
- (3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer or is consistent with the contractor's legal duty to furnish information.
- (4) The contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided by TAM contracting officer, advising the labor union or workers' representative of the contractor's commitments under section 202 of Executive Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (7) In the event of the contractor's non-compliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- (8) The contractor will include the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

K. FLY AMERICA

a) Definitions. As used in this clause-

- 1) "International air transportation" means transportation by air between a place in the United States and a place outside the United States or between two places both of which are outside the United States.
- 2) "United States" means the 50 States, the District of Columbia, and outlying areas.
- 3) "U.S.-flag air carrier" means an air carrier holding a certificate under 49 U.S.C. Chapter 411.

b) When Federal funds are used to fund travel, Section 5 of the International Air Transportation Fair Competitive Practices Act of 1974 (49 U.S.C. 40118) (Fly America Act) requires contractors, Agencies, and others use U.S.-flag air carriers for U.S. Government-financed international air transportation of personnel (and their personal effects) or property, to the extent that service by those carriers is available. It requires the Comptroller General of the United States, in the absence of satisfactory proof of the necessity for foreign-flag air transportation, to disallow expenditures from funds, appropriated or otherwise established for the account of the United States, for international air transportation secured aboard a foreign-flag air carrier if a U.S.-flag air carrier is available to provide such services.

c) If available, the Contractor, in performing work under this contract, shall use U.S.-flag carriers for international air transportation of personnel (and their personal effects) or property.

d) In the event that the Contractor selects a carrier other than a U.S.-flag air carrier for international air transportation, the Contractor shall include a statement on vouchers involving such transportation essentially as follows:

Statement of Unavailability of U.S. Flag Air Carriers

International air transportation of persons (and their personal effects) or property by U.S.-flag air carrier was not available or it was necessary to use foreign- flag air carrier service for the following reasons. See FAR § 47.403. [State reasons]:

e) Contractor shall include the substance of this clause, including this paragraph (e), in each subcontract or purchase under this contract that may involve international air transportation.

L. INCORPORATION OF FEDERAL TRANSIT ADMINISTRATION (FTA) TERMS

The provisions within include, in part, certain Standard Terms and Conditions required under the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (2 CFR § 200), whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, detailed in 2 CFR § 200 or as amended by 2 CFR § 1201, or the most recent version of FTA Circular 4220.1 are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Contract. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any request which would cause a violation of the FTA terms and conditions.

M. NO GOVERNMENT OBLIGATION TO THIRD PARTIES

The Recipient and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying Contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this Contract and shall not be subject to any obligations or liabilities to the Recipient, Contractor or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying Contract. The Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by the FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to its provisions.

N. NOTICE TO FTA AND U.S. DOT INSPECTOR GENERAL OF INFORMATION RELATED TO FRAUD, WASTE, ABUSE, OR OTHER LEGAL MATTERS

If a current or prospective legal matter that may affect the Federal Government emerges, the Recipient must promptly notify the FTA Chief Counsel and FTA Regional Counsel for the Region in which the Recipient is located. The Recipient must include a similar notification requirement in its Third Party Agreements and must require each Third Party Participant to include an equivalent provision in its subagreements at every tier, for any agreement that is a “covered transaction” according to 2 C.F.R. §§ 180.220 and 1200.220.

- (1) The types of legal matters that require notification include, but are not limited to, a major dispute, breach, default, litigation, or naming the Federal Government as a party to litigation or a legal disagreement in any forum for any reason.
- (2) Matters that may affect the Federal Government include, but are not limited to, the Federal Government’s interests in the Award, the accompanying Underlying Agreement, and any Amendments thereto, or the Federal Government’s administration or enforcement of federal laws, regulations, and requirements.
- (3) The Recipient must promptly notify the U.S. DOT Inspector General in addition to the FTA Chief Counsel or Regional Counsel for the Region in which the Recipient is located, if the Recipient has knowledge of potential fraud, waste, or abuse occurring on a Project receiving assistance from FTA. The notification provision applies if a person has or may have submitted a false claim under the False Claims Act, 31 U.S.C. § 3729 et seq., or has or may have committed a criminal or civil violation of law pertaining to such matters as fraud, conflict of interest, bribery, gratuity, or similar misconduct. This responsibility occurs whether the Project is subject to this Agreement or another agreement between the Recipient and FTA, or an agreement involving a principal, officer, employee, agent, or Third Party Participant of the Recipient. It also applies to subcontractors at any tier. Knowledge, as used in this paragraph, includes, but is not limited to, knowledge of a criminal or civil investigation by a Federal, state, or local law enforcement or other investigative agency, a criminal indictment or civil complaint, or probable cause that could support a criminal indictment, or any other credible information in the possession of the Recipient.

O. PATENT RIGHTS AND RIGHTS IN DATA

Intellectual Property Rights

This Project is funded through a Federal award with FTA for experimental, developmental, or research work purposes. As such, certain Patent Rights and Data Rights apply to all subject data first produced in the performance of this Contract. The Contractor shall grant TAM intellectual property access and licenses deemed necessary for the work performed under this Contract and in accordance with the requirements of 37 C.F.R. part 401, “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by FTA or U.S. DOT.

The terms of an intellectual property agreement and software license rights will be finalized prior to execution of this Contract and shall, at a minimum, include the following restrictions:

Except for its own internal use, the Contractor may not publish or reproduce subject data in whole or in part, or in any manner or form, nor may the Contractor authorize others to do so, without the written consent of FTA, until such time as FTA may have either released or approved the release of such data to the public. This restriction on publication, however, does not apply to any contract with an academic institution.

For purposes of this Contract, the term “subject data” means recorded information whether or not copyrighted, and that is delivered or specified to be delivered as required by the Contract. Examples of “subject data” include, but are not limited to computer software, standards, specifications, engineering drawings and associated lists, process sheets, manuals, technical reports, catalog item identifications, and related information, but do not include financial reports, cost analyses, or other similar information used for performance or administration of the Contract.

1. The Federal Government reserves a royalty-free, non-exclusive and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use for "Federal Government Purposes," any subject data or copyright described below. For "Federal Government Purposes," means use only for the direct purposes of the Federal Government. Without the copyright owner's consent, the Federal Government may not extend its Federal license to any other party.
 - a. Any subject data developed under the Contract, whether or not a copyright has been obtained; and
 - b. Any rights of copyright purchased by the Contractor using Federal assistance in whole or in part by the FTA.
2. Unless FTA determines otherwise, the Contractor performing experimental, developmental, or research work required as part of this Contract agrees to permit FTA to make available to the public, either FTA's license in the copyright to any subject data developed in the course of the Contract, or a copy of the subject data first produced under the Contract for which a copyright has not been obtained. If the experimental, developmental, or research work, which is the subject of this Contract, is not completed for any reason whatsoever, all data developed under the Contract shall become subject data as defined herein and shall be delivered as the Federal Government may direct.
3. Unless prohibited by state law, upon request by the Federal Government, the Contractor agrees to indemnify, save, and hold harmless the Federal Government, its officers, agents, and employees acting within the scope of their official duties against any liability, including costs and expenses, resulting from any willful or intentional violation by the Contractor of proprietary rights, copyrights, or right of privacy, arising out of the publication, translation, reproduction, delivery, use, or disposition of any data furnished under that contract. The Contractor shall not be required to indemnify the Federal Government for any such liability arising out of the wrongful act of any employee, official, or agents of the Federal Government.
4. Nothing contained in this clause on rights in data shall imply a license to the Federal Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Federal Government under any patent.
5. Data developed by the Contractor and financed entirely without using Federal assistance provided by the Federal Government that has been incorporated into work required by the underlying Contract is exempt from the requirements herein, provided that the Contractor identifies those data in writing at the time of delivery of the Contract work.
6. The Contractor agrees to include these requirements in each subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance.

P. PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS AND RELATED ACTS

The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. § 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. part 31, apply to its actions pertaining to this Project. Upon execution of the underlying contract, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying contract or the FTA assisted project for which this contract work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate. The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. chapter 53, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5323(l) on the Contractor, to the extent the Federal Government deems appropriate.

The Contractor agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to

identify the subcontractor who will be subject to the provisions.

Q. PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT.

- a. Recipients and subrecipients are prohibited from obligating or expending loan or grant funds to:
 1. Procure or obtain;
 2. Extend or renew a contract to procure or obtain; or
 3. Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).
 - i. For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).
 - ii. Telecommunications or video surveillance services provided by such entities or using such equipment.
 - iii. Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.
- b. In implementing the prohibition under Public Law 115-232, section 889, subsection (f), paragraph (1), heads of executive agencies administering loan, grant, or subsidy programs shall prioritize available funding and technical support to assist affected businesses, institutions and organizations as is reasonably necessary for those affected entities to transition from covered communications equipment and services, to procure replacement equipment and services, and to ensure that communications service to users and customers is sustained.
- c. See Public Law 115-232, section 889 for additional information.
- d. See also § 200.471.

R. PROMPT PAYMENT

(Does not apply to projects fully funded by the Tribal Transportation Program (TTP).)

The contractor is required to pay its subcontractors performing work related to this contract for satisfactory performance of that work no later than 30 days after the contractor's receipt of payment for that work. In addition, the contractor is required to return any retainage payments to those subcontractors within 30 days after the subcontractor's work related to this contract is satisfactorily completed.

The contractor must promptly notify TAM, whenever a DBE subcontractor performing work related to this contract is terminated or fails to complete its work and must make good faith efforts to engage another DBE subcontractor to perform at least the same amount of work. The contractor may not terminate any DBE subcontractor and perform that work through its own forces or those of an affiliate without prior written consent of TAM.

S. RESTRICTIONS ON LOBBYING

Conditions On Use Of Funds.

- (a) No appropriated funds may be expended by the recipient of a Federal contract, grant, loan, or cooperative agreement to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions: the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (b) Each person who requests or receives from an agency a Federal contract, grant, loan, or cooperative agreement shall file with that agency a certification, that the person has not made, and will not make, any payment prohibited by paragraph (a) of this section.
- (c) Each person who requests or receives from an agency a Federal contract, grant, loan, or a cooperative agreement shall file with that agency a disclosure form if such person has made or has agreed to make any payment using non-appropriated funds (to include profits from any covered Federal action), which would be prohibited under paragraph (a) of this section if paid for with appropriated funds.
- (d) Each person who requests or receives from an agency a commitment providing for the United States to insure or guarantee a loan shall file with that agency a statement, whether that person has made or has agreed to make any payment to influence or attempt to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with that loan insurance or guarantee.
- (e) Each person who requests or receives from an agency a commitment providing for the United States to insure or guarantee a loan shall file with that agency a disclosure form if that person has made or has agreed to make any payment to influence or attempt to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with that loan insurance or guarantee.

Certification And Disclosure

- (a) Each person shall file a certification, and a disclosure form, if required, with each submission that initiates agency consideration of such person for:
 - (1) Award of a Federal contract, grant, or cooperative agreement exceeding \$100,000; or
 - (2) An award of a Federal loan or a commitment providing for the United States to insure or guarantee a loan exceeding \$150,000.
- (b) Each person shall file a certification, and a disclosure form, if required, upon receipt by such person of:
 - (1) A Federal contract, grant, or cooperative agreement exceeding \$100,000; or
 - (2) A Federal loan or a commitment providing for the United States to insure or guarantee a loan exceeding \$150,000,

Unless such person previously filed a certification, and a disclosure form, if required, under paragraph (a) of this section.

- (c) Each person shall file a disclosure form at the end of each calendar quarter in which there occurs any event that requires disclosure or that materially affects the accuracy of the information contained in any disclosure form previously filed by such person under paragraphs (a) or (b) of this section. An event that materially affects the accuracy of the information reported includes:
 - (1) A cumulative increase of \$25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or
 - (2) A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or,

(3) A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal action.

(d) Any person who requests or receives from a person referred to in paragraphs (a) or (b) of this section:

(1) A subcontract exceeding \$100,000 at any tier under a Federal contract;

(2) A subgrant, contract, or subcontract exceeding \$100,000 at any tier under a Federal grant;

(3) A contract or subcontract exceeding \$100,000 at any tier under a Federal loan exceeding \$150,000; or,

(4) A contract or subcontract exceeding \$100,000 at any tier under a Federal cooperative agreement,

Shall file a certification, and a disclosure form, if required, to the next tier above.

(e) All disclosure forms, but not certifications, shall be forwarded from tier to tier until received by the person referred to in paragraphs (a) or (b) of this section. That person shall forward all disclosure forms to TAM.

(f) Any certification or disclosure form filed under paragraph (e) of this section shall be treated as a material representation of fact upon which all receiving tiers shall rely. All liability arising from an erroneous representation shall be borne solely by the tier filing that representation and shall not be shared by any tier to which the erroneous representation is forwarded. Submitting an erroneous certification or disclosure constitutes a failure to file the required certification or disclosure, respectively. If a person fails to file a required certification or disclosure, the United States may pursue all available remedies, including those authorized by section 1352, title 31, U.S. Code.

(g) For awards and commitments in process prior to December 23, 1989, but not made before that date, certifications shall be required at award or commitment, covering activities occurring between December 23, 1989, and the date of award or commitment. However, for awards and commitments in process prior to the December 23, 1989 effective date of these provisions, but not made before December 23, 1989, disclosure forms shall not be required at time of award or commitment but shall be filed within 30 days.

(h) No reporting is required for an activity paid for with appropriated funds if that activity is allowable under either subpart B or C.

T. SAFE OPERATION OF MOTOR VEHICLES

Seat Belt Use

The Contractor is encouraged to adopt and promote on-the-job seat belt use policies and programs for its employees and other personnel that operate company-owned vehicles, company rented vehicles, or personally operated vehicles. The terms "company-owned" and "company-leased" refer to vehicles owned or leased either by the Contractor or Agency.

Distracted Driving

The Contractor agrees to adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers, including policies to ban text messaging while using an electronic device supplied by an employer, and driving a vehicle the driver owns or rents, a vehicle Contractor owns, leases, or rents, or a privately-owned vehicle when on official business in connection with the work performed under this Contract.

U. SEISMIC SAFETY

The contractor agrees that any new building or addition to an existing building will be designed and constructed in accordance with the standards for Seismic Safety required in Department of Transportation (DOT) Seismic Safety Regulations 49 C.F.R. part 41 and will certify to compliance to the extent required by the regulation. The contractor also agrees to ensure that all work performed under this contract, including work performed by a subcontractor, is in compliance with the standards required by the Seismic Safety regulations and the certification of compliance issued on the project.

V. SIMPLIFIED ACQUISITION THRESHOLD

Contracts for more than the simplified acquisition threshold, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. § 1908, or otherwise set by law, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate.

Note that the simplified acquisition threshold determines the procurement procedures that must be employed pursuant to 2 C.F.R. §§ 200.317–200.327. The simplified acquisition threshold does not exempt a procurement from other eligibility or processes requirements that may apply. For example, Buy America's eligibility and process requirements apply to any procurement in excess of \$150,000. 49 U.S.C. § 5323(j)(13).

W. TERMINATION

Termination for Convenience

TAM, by written notice, may terminate this contract, in whole or in part, when it is in TAM's interest. If this contract is terminated, TAM shall be liable only for payment under the payment provisions of this contract for services rendered before the effective date of termination.

TAM may terminate this contract in whole or in part, for TAM's convenience or because of the failure of the Contractor to fulfill the contract obligations. TAM shall terminate by delivering to the Contractor a Notice of Termination specifying the nature, extent, and effective date of the termination. Upon receipt of the notice, the Contractor shall (1) immediately discontinue all services affected (unless the notice directs otherwise), and (2) deliver to TAM's Contracting Officer all data, drawings, specifications, reports, estimates, summaries, and other information and materials accumulated in performing this contract, whether completed or in process. Agency has a royalty-free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, all such data, drawings, specifications, reports, estimates, summaries, and other information and materials.

If the termination is for the convenience of TAM, TAM's Contracting Officer shall make an equitable adjustment in the contract price but shall allow no anticipated profit on unperformed services.

If the termination is for failure of the Contractor to fulfill the contract obligations, TAM may complete the work by contract or otherwise and the Contractor shall be liable for any additional cost incurred by TAM.

If, after termination for failure to fulfill contract obligations, it is determined that the Contractor was not in default, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of TAM.

Opportunity to Cure

TAM, in its sole discretion may, in the case of a termination for breach or default, allow the Contractor an appropriately short period of time in which to cure the defect. In such case, the Notice of Termination will state the time period in which cure is permitted and other appropriate conditions.

If Contractor fails to remedy to Agency's satisfaction the breach or default of any of the terms, covenants, or conditions of this Contract within 10 working days after receipt by Contractor of written notice from Agency setting forth the nature of said breach or default, Agency shall have the right to terminate the contract without any further obligation to Contractor. Any such termination for default shall not in any way operate to preclude Agency from also pursuing all available remedies against Contractor and its sureties for said breach or default.

X. VIOLATION AND BREACH OF CONTRACT

- (1) **Disputes:** Disputes arising in the performance of this Contract that are not resolved by agreement of the parties shall be decided in writing by the authorized representative of TAM. This decision shall be final

and conclusive unless within 10 working days from the date of receipt of its copy, the Contractor mails or otherwise furnishes a written appeal to the agencies authorized representative. In connection with any such appeal, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of the agencies authorized representative shall be binding upon the Contractor and the Contractor shall abide by the decision.

- (2) **Performance during Dispute:** Unless otherwise directed by the agencies authorized representative, contractor shall continue performance under this contract while matters in dispute are being resolved.
- (3) **Claims for Damages:** Should either party to the contract suffer injury or damage to person or property because of any act or omission of the party or of any of his employees, agents or others for whose acts he is legally liable, a claim for damages therefore shall be made in writing to such other party within a reasonable time after the first observance of such injury or damage.
- (4) **Remedies:** Unless this contract provides otherwise, all claims, counterclaims, disputes and other matters in question between the agencies authorized representative and contractor arising out of or relating to this agreement or its breach will be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the State in which TAM is located.
- (5) **Rights and Remedies:** Duties and obligations imposed by the contract documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by TAM or contractor shall constitute a waiver of any right or duty afforded any of them under the contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

Y. CONFORMANCE WITH ITS NATIONAL ARCHITECTURE

Intelligent Transportation Systems (ITS) projects shall conform to the National ITS Architecture and standards pursuant to 23 CFR § 940. Conformance with the National ITS Architecture is interpreted to mean the use of the National ITS Architecture to develop a regional ITS architecture in support of integration and the subsequent adherence of all ITS projects to that regional ITS architecture. Development of the regional ITS architecture should be consistent with the transportation planning process for Statewide and Metropolitan Transportation Planning (49 CFR Part 613 and 621).

Z. FEDERAL TAX LIABILITY AND RECENT FELONY CONVICTIONS

- (1) The contractor certifies that it:
 - (a) Does not have any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability; and
 - (b) Was not convicted of the felony criminal violation under any Federal law within the preceding 24 months.

If the contractor cannot so certify, the Recipient will refer the matter to FTA and not enter into any Third Party Agreement with the Third Party Participant without FTA's written approval.

- (2) Flow-Down. The Recipient agrees to require the contractor to flow this requirement down to participants at all lower tiers, without regard to the value of any sub-agreement.

AA. SEVERABILITY

The Contractor agrees that if any provision of this agreement or any amendment thereto is determined to be invalid, then the remaining provisions thereof that conform to federal laws, regulations, requirements, and guidance will continue in effect.

BB. TRAFFICKING IN PERSONS

The contractor agrees that it and its employees that participate in the Recipient's Award, may not:

- (a) Engage in severe forms of trafficking in persons during the period of time that the Recipient's Award is in effect;
- (b) Procure a commercial sex act during the period of time that the Recipient's Award is in effect; or
- (c) Use forced labor in the performance of the Recipient's Award or sub-agreements thereunder.



US 101 Part-Time Transit Lane Feasibility Study Feasibility Study

September 2021 | Final

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Appendix A: Part-Time Transit Lane Preliminary Concept Layouts

Appendix B: Opinion of Probable Cost

EXECUTIVE SUMMARY

The Transportation Authority of Marin (TAM), supported by a California Department of Transportation (Caltrans) Sustainable Communities (SB-1) Grant, evaluated the feasibility of implementing part-time transit lanes (PTTL) along US Highway 101 (US 101) in northern Marin County. The US 101 Part-Time Transit Lane Feasibility Study (Study) examined the conditions for, and feasibility of, PTTL operations along the corridor with the goal of developing an operational concept for implementation based on demonstrated travel benefits to transit travel time and reliability.

As part of this Study, TAM and the project team:

- Determined the suitability of shoulders, slip lanes, and auxiliary lanes for bus use
- Developed concept plans and identified improvements
- Evaluated travel benefits
- Formulated next steps for implementation and assessed relationships to other ongoing projects along US 101

The evaluation and conceptualization of PTTL operations involved active and ongoing coordination between TAM and partner agencies, including Caltrans, California Highway Patrol (CHP); Metropolitan Transportation Commission (MTC); transit operators Marin Transit and Golden Gate Bridge, Highway and Transportation District (GGBHTD); Sonoma-Marín Area Rapid Transit District (SMART); and the local jurisdictions of the County of Marin and the Cities of Novato and San Rafael.

As the only major north-south thoroughfare spanning the full length of Marin County, US 101 is critical to both regional and local multimodal travel. Due to significant travel demand prior to the onset of the COVID-19 pandemic, the corridor experienced high levels of recurring commute congestion which degraded transit travel times. Forecasts in the 2017 Plan Bay Area 2040 anticipated that Marin County would have the highest per capita vehicle miles traveled (VMT) of all Bay Area counties by 2020.

Regional transportation agencies, in partnership with Caltrans, are exploring new ways to prioritize transit buses through congested and constrained freeway corridors to combat mounting operational challenges associated with deteriorating operating speed and reliability. Although it has been proven effective in other states, PTTL is still an emerging solution in California. Caltrans is currently developing guidance and recommended policy revisions to allow for consistent PTTL implementation across the state. Therefore, in order to pursue PTTL in California, significant work needs to be conducted to verify feasibility, assess relationships with other projects, and identify implementation hurdles and processes. This Study began the process for TAM to assess geometric feasibility, cost-benefit trade-offs, and implementation steps. It served as a critical first step in defining a project to advance through subsequent engineering, approvals, and budgeting processes.

The Study assessed the feasibility of PTTL operations along US 101 as a potential strategy to improve transit travel performance. This included determining the suitability of shoulders, slip lanes, and auxiliary lanes for bus use as well as identifying the roadway segments that would most benefit from implementation of PTTL. The Study included the development of concept plans and the evaluation of travel benefits to inform decision-makers and stakeholders on the effectiveness and value of PTTL in the corridor. The Study also determined next steps for implementation, with consideration for other concurrent and planned US 101 projects.

Project Need

US 101 serves as the spine of Marin County's multimodal transportation network. The north-south corridor carries more than 200,000 vehicles per day during weekdays, serving local and regional routes throughout Marin County and nearby counties. Longstanding congestion issues have degraded travel conditions along the corridor, particularly southbound between De Long Avenue in Novato and North San Pedro Road in San Rafael. Pre-pandemic existing conditions showed that average travel speeds within the segment were at or below 35 miles per hour (mph) between 6:30 a.m. and 10:00 a.m. In addition, there is significant variability in the levels of congestion each day, contributing to travel time reliability challenges in the corridor. Travel time and travel time

variability were found to be significantly impacted for bus routes, both operating in the mainline and in the HOV lane in the southbound direction. There is minimal recurring congestion in the northbound direction.

US 101 supports a robust and complex transit system with a wide range of service patterns and operations. On an average weekday, there are more than 350 individual transit bus trips that occur along the study area corridor, with schedules starting as early as 4:00 a.m. and ending as late as 1:30 a.m. During the peak hour, there are approximately 22 different buses traveling in the peak direction alone.



Source: TAM (2020)

PTTL Concept

The PTTL pilot concept proposes an operational scheme in which buses utilize a combination of freeway shoulder lanes, auxiliary lanes, exit lanes, and existing bus bypass lanes to circumvent general purpose traffic on US 101 between North San Pedro Road in San Rafael and De Long Avenue in Novato when specific operational conditions are met, as shown in **Figure O-1**. Authorized transit vehicles would be permitted to operate within the freeway shoulder lanes during periods of heavy traffic congestion when general purpose lanes are operating below 35 mph. Based on existing traffic conditions identified prior to the onset of COVID-19, PTTL operational parameters would most likely be met on weekday mornings in the southbound direction. However, PTTL operations would be permitted at any time that the operational parameters are met, resulting from recurring or non-recurring congestion. When buses utilize the PTTL, they would be allowed to travel up to 15 mph faster than the adjacent speed of traffic, not to exceed 35 mph. Buses would utilize the auxiliary lane in the several segments within the project limits where it is currently provided instead of the outside shoulder. At interchanges, local buses would use entry and exit ramps as they do today. Buses not stopping at a local stop would continue in the freeway shoulder lane through the interchange, except in limited locations where geometrics warrant. PTTL would primarily benefit local transit services that serve the in-line bus stops along US 101, although travel time savings would also be recognized in the peak of the morning period by express services operating in the corridor.

Implementation of PTTL requires limited restriping to widen outside shoulders in some locations within the study corridor as well as repaving and drainage inlet modifications. The PTTL concept includes new signage and striping to notify drivers of the provision of PTTL. The operational concept and parameters for the PTTL pilot will be further defined as part of a Concept of Operations (ConOps) document, to be prepared in a subsequent project phase.

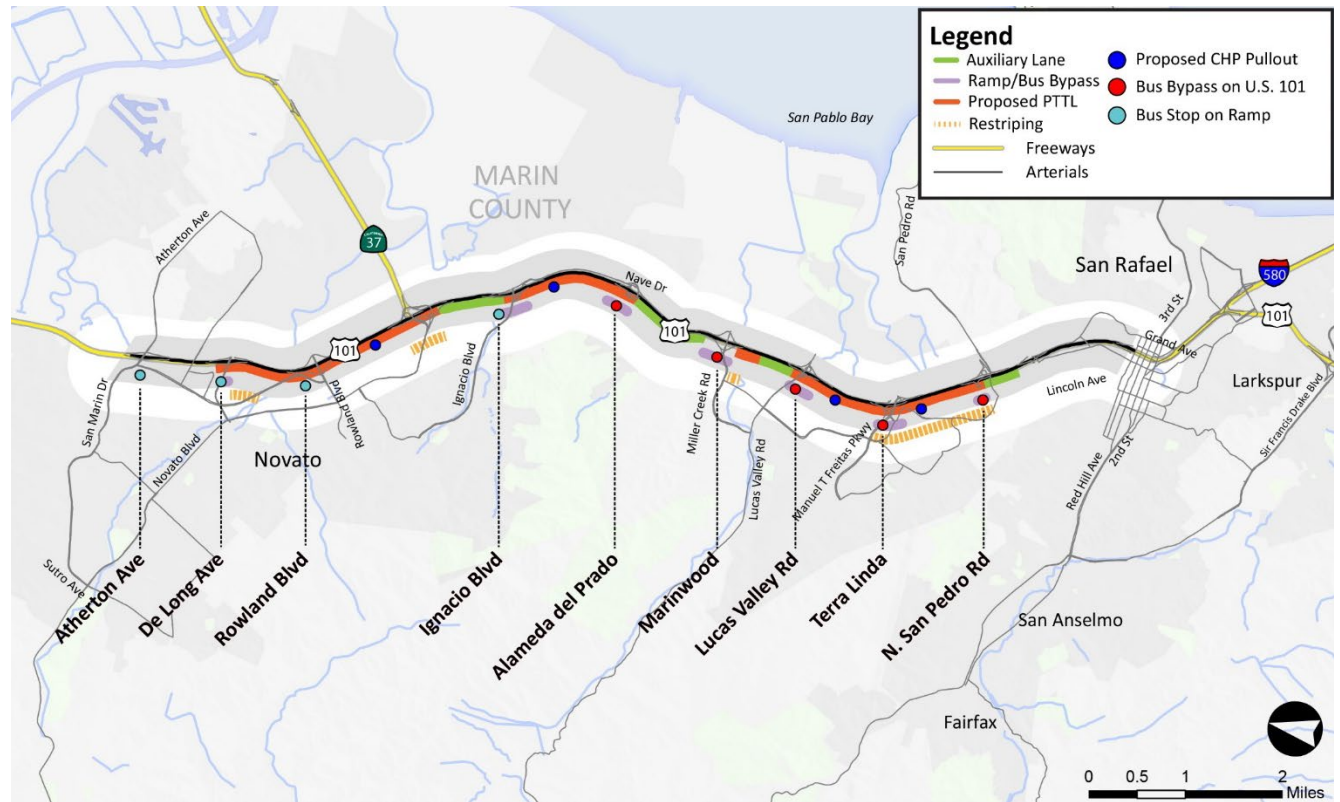


Figure 0-1: PTTL Study Corridor Summary

Project Benefits

Study analyses show that PTTL operations along the study corridor have the potential to produce operational benefits that could lead to an increase in ridership and contribute to the reduction of VMT and greenhouse gas (GHG) emissions. Results indicate that the pilot concept is associated with an increase in transit travel time savings and travel time reliability during the a.m. peak period, both of which affect mode choice. These improvements can help operators meet performance and service objectives while improving the transit user experience, correlating to a shift in travel modes from auto to transit. In addition, the visual impact of seeing transit in motion while using the PTTL segments, as drivers are stuck in congestion, can improve the perceived utility of using transit, particularly US 101 corridor services, as a viable means of mobility and further encourage people to switch modes. The estimated change in ridership patterns is expected to result in less VMT and a decrease in GHG emissions and other criteria pollutants.

With improved transit reliability and reduced travel times, the PTTL concept is anticipated to provide operating efficiencies and improved on-time performance for transit operators. These efficiencies can translate to operating cost savings that can be applied to provide additional service in the corridor and long-term operational sustainability.

By providing significant transit travel time and reliability improvements for local routes serving the in-line stops on US 101, PTTL would provide the greatest benefit to historically disadvantaged populations, including minority and low-income populations that comprise a disproportionate share of the ridership of those routes. Thus, PTTL can serve as an effective tool for improving equity within Marin County and the mobility of transit-dependent populations.

Project Cost

The project capital cost for PTTL pilot implementation includes roadway striping, re-paving, signage, drainage inlet modification, and limited additional ramp modifications. Project capital costs also include the necessary design, permitting, and approvals processes for project implementation. The total project capital cost is estimated at \$6.5 million to \$7 million. Ongoing operating costs includes the cost of training bus operators, CHP enforcement, and additional maintenance of the PTTL segments along US 101. Anticipated updates to state legislation and Caltrans guidance may impact various aspects of the design, operations, enforcement, and overall approvals process, as well as their respective costs. Costs will be further refined in subsequent project phases.

Highway Systems Plan

A number of improvements are currently being planned or implemented along the US 101 corridor to address congestion, improve multimodal access, and mitigate climate change impacts. There are five identified projects planned within, or adjacent to, the PTTL study corridor that are considered for their relationship to PTTL.

Ongoing phases of the Marin-Sonoma Narrows (MSN) project will extend the existing HOV lane on US 101 north of Novato. The project will benefit inter-regional travel for both auto vehicles and transit with the increased capacity and continuous HOV lanes through Marin County. The project area does not directly overlap with the PTTL study corridor, but the additional roadway capacity may increase congestion within it and further increase the need for the project. While the MSN project most benefits inter-regional traffic, PTTL benefits are focused more on intra-regional and local transit services.

The HOV Hours of Operations effort will synchronize the HOV hours of operations in Marin and Sonoma counties. The modified hours of operations are anticipated to benefit express bus performance during the shoulder periods, including within the PTTL study corridor. However, it would not have provided benefits to local/non-express transit services that need to operate in the general-purpose lanes, nor does it provide benefit during the peak of the peak period when HOV lane performance is already degraded. It is these services that benefit the most from PTTL.

The Ramp Metering II project will implement ramp meters at multiple on-ramps along US 101. This project is not anticipated to be constructed until FY2026/2027 at the earliest, which is anticipated to be after the pilot period of PTTL. If the PTTL pilot is successful and PTTL operation is retained in the corridor, then integration of the PTTL with ramp metering technology may provide benefits for safety alongside the ramp meter implementation. Ramp metering is not considered a prerequisite for PTTL implementation. The implementation of Ramp Metering Phase II would optimize corridor throughput, which could potentially lead to increased auto VMT, which can be partially offset by the transit benefits provided by the PTTL project.

The Highway 101 Interchanges and Approaching Roadway Study (Interchange Study) is evaluating 12 interchanges and adjacent roadways to provide recommendations for multimodal access improvements. Five of the 12 interchanges are within the study corridor, four of which have existing transit stops located on the ramp shoulder or between the on- and off-ramps. The Interchange Study will support the PTTL project by enhancing access to existing in-line bus stops along the corridor, the functionality of park-and-rides along the US 101 corridor, and the configuration of interchange ramps. The Interchange Study and PTTL implementation efforts should be coordinated to leverage ramp improvements to improve transit operations and efficiency along with the PTTL project.

The SR-37 Corridor Project includes multiple projects along SR-37 aimed to address congestion and expected sea level rise. The timing and extent of the improvements are not known, but they are not anticipated to cause any modifications to PTTL operations or geometrics. However, the projects will increase traffic flow on SR-37, which connects directly to US 101. The increased congestion on US 101 would further increase the need and benefit of PTTL.

PTTL is unique amongst the projects identified in that it primarily benefits local trips—particularly local trips most frequently taken by historically disadvantaged populations, which provides clear equity benefits. PTTL also

uniquely serves as a catalyst for encouraging a sustainability shift from auto drive-alone trips to transit. Therefore, PTTL serves as a critical component of the overall US 101 mobility strategy.

PTTL Implementation

This Feasibility Study assesses the need, opportunities, benefits, and costs associated with PTTL on US 101 between Novato and San Rafael. It represents just the first step in a lengthy process to actual operation of PTTL in this corridor. Subsequent efforts prior to PTTL implementation include: the development of a ConOps document; environmental analysis; design development; continued stakeholder engagement, particularly with Caltrans and CHP; and construction. Most critically, the legal framework for PTTL is uncertain. Efforts are currently ongoing at the state level for new legislation that would govern the advancement of PTTL projects and their operation. Additionally, Caltrans is currently developing design guidance and recommended policy revisions for PTTL operations that will define project parameters. These legislative and guidance processes will ultimately shape the design, delivery, and operations of a PTTL pilot.

1. INTRODUCTION

The Transportation Authority of Marin (TAM), supported by a California Department of Transportation (Caltrans) Sustainable Communities (SB-1) Grant, evaluated the feasibility of implementing part-time transit lanes (PTTL) along US Highway 101 (US 101) in northern Marin County. The US 101 Part-Time Transit Lane Feasibility Study (Study) examined the conditions for, and feasibility of, PTTL operations along the corridor with the goal of developing an operational concept for implementation based on demonstrated travel benefits to transit travel time and reliability.

As part of this Study, TAM and the project team:

- Determined the suitability of shoulders, slip lanes, and auxiliary lanes for bus use
- Developed concept plans and identified improvements
- Evaluated travel benefits
- Formulated next steps for implementation and assessed relationships to other ongoing projects along US 101

The evaluation and conceptualization of PTTL operations involved active and ongoing coordination between TAM and partner agencies, including Caltrans, California Highway Patrol (CHP); Metropolitan Transportation Commission (MTC); transit operators Marin Transit and Golden Gate Bridge, Highway and Transportation District (GGBHTD); Sonoma-Marín Area Rapid Transit District (SMART); and the local jurisdictions of the County of Marin and the Cities of Novato and San Rafael.

As the only major north-south thoroughfare spanning the full length of Marin County, US 101 is critical to both regional and local multimodal travel. Due to significant travel demand prior to the onset of the COVID-19 pandemic, the corridor experienced high levels of recurring commute congestion which degraded transit travel times. Forecasts in the 2017 Plan Bay Area 2040 anticipated that Marin County would have the highest per capita Vehicle Miles Traveled (VMT) of all Bay Area counties by 2020.

Regional transportation agencies, in partnership with Caltrans, are exploring new ways to prioritize transit buses through congested and constrained freeway corridors to combat mounting operational challenges associated with deteriorating operating speed and reliability. Although it has been proven to be effective in other states, PTTL is still an emerging solution in California. Caltrans is currently developing guidance and recommended policy revisions to allow for consistent PTTL implementation across the state. Therefore, in order to pursue PTTL in California, significant work needs to be conducted to verify feasibility, assess relationships with other projects, and identify implementation hurdles and processes. This Study began the process for TAM to assess geometric feasibility, cost-benefit trade-offs, and implementation steps. It served as a critical first step in defining a project to advance through subsequent engineering, approvals, and budgeting processes.

1.1. Study Overview

The Study assessed the feasibility of PTTL operations along US 101 as a potential strategy to improve transit travel performance. This included determining the suitability of shoulders, slip lanes, and auxiliary lanes for bus use as well as identifying the roadway segments that would most benefit from implementation of PTTL. The Study included the development of concept plans and the evaluation of travel benefits to inform decision-makers and stakeholders on the effectiveness and value of PTTL in the corridor. The Study also determined next steps for implementation, with consideration for other concurrent and planned US 101 projects.

1.2. Purpose of This Document

This report represents the culmination of technical tasks and identifies the phasing and implementation approach for PTTL operations. Determination of the appropriate approach is based on the findings of previously prepared assessments and integration with concurrent and anticipated improvements along the US 101 corridor in Marin County between San Rafael and Novato. This report includes the following project elements:

- Summary of project need
- Overview of proposed PTTL design, operational parameters, and transit operations through mainline segments and various ramp conditions along the corridor
- Summary of potential travel benefits and estimated costs associated with the PTTL pilot concept
- Highway Systems Plan, which discusses coordination with concurrent and planned US 101 improvements
- PTTL implementation strategy, which identifies subsequent efforts to advance the Study findings to project implementation

2. REFERENCED DOCUMENTS

- US 101 Part-Time Transit Lane Existing Conditions Report (TAM, 2020)
- US 101 Part-Time Transit Lane Pilot Operations Plan (TAM, 2021)
- US 101 Part-Time Transit Lane Corridor Evaluation Report (TAM, 2021)
- A Guide for Implementing Bus on Shoulder (BOS) Systems (TRB TCRP, 2012)
- Use of Freeway Shoulders for Travel: Guide for Planning, Evaluating, and Designing Part-Time Shoulder Use as a Traffic Management Strategy (FHWA, 2016)

3. US 101 PART-TIME TRANSIT LANE OVERVIEW

3.1. Project Need

US 101 forms the backbone of Marin County's multimodal transportation network and provides connections to neighboring San Francisco, Sonoma County, and Contra Costa County (via I-580). This segment of the US 101 corridor facilitates nearly 100,000 individual trips in each direction on weekdays. Forecasts in the 2017 Plan Bay Area 2040 anticipated that Marin County would have the highest per capita VMT of all Bay Area counties by 2020.

The US 101 corridor also features a robust transit network with unique in-line stop configurations and route patterns to destinations across Marin and adjacent counties. There are more than 350 individual transit bus trips that occur along the study corridor, including 22 in the peak direction in the peak hour. There are roughly 650 boardings and alightings at in-line stops in the study area during weekdays, with a total bi-directional peak transit load of 3,000 passengers. This does not include boardings at the San Rafael Transit Center, at the southern end of the study segment and off of the US 101 corridor. Southbound stop boardings and alightings represent a significant share of corridor boardings at in-line stops (465, or 72 percent).

Due to the significant travel demand, US 101 between Novato and San Rafael is characterized by degrading travel conditions. The weekday average travel time runs by time of day for the whole study corridor with 5th and 95th percentiles shown in **Figure 3-1** and **Figure 3-2**. Congestion along the corridor is most prominent in the southbound direction, with significant delays and extended travel times occurring between De Long Avenue in Novato and North San Pedro Road in San Rafael. Travel speeds are significantly lower in this segment between 6:30 a.m. and 10:00 a.m., with average speeds at or below 35 mph. The analysis also found that HOV lane speeds are also significantly impacted in the segment near SR-37. Bus routes operating in the mainline and HOV lane experience significantly increased travel time and travel time variability in the southbound direction. Travel speeds for express transit routes operating in the HOV lane are currently no better than travel speeds for local transit routes operating in the right-hand lane and accessing each stop. Generally, the northbound direction does not experience recurring congestion; however, the corridor is sensitive to non-recurring capacity reductions.

Note that the information presented in this Study incorporates data collected prior to the COVID-19 pandemic. While travel demand, ridership, and congestion levels have all been affected by the pandemic, current trends suggest travel activity in the corridor reaching or exceeding pre-COVID-19 levels in the coming years.

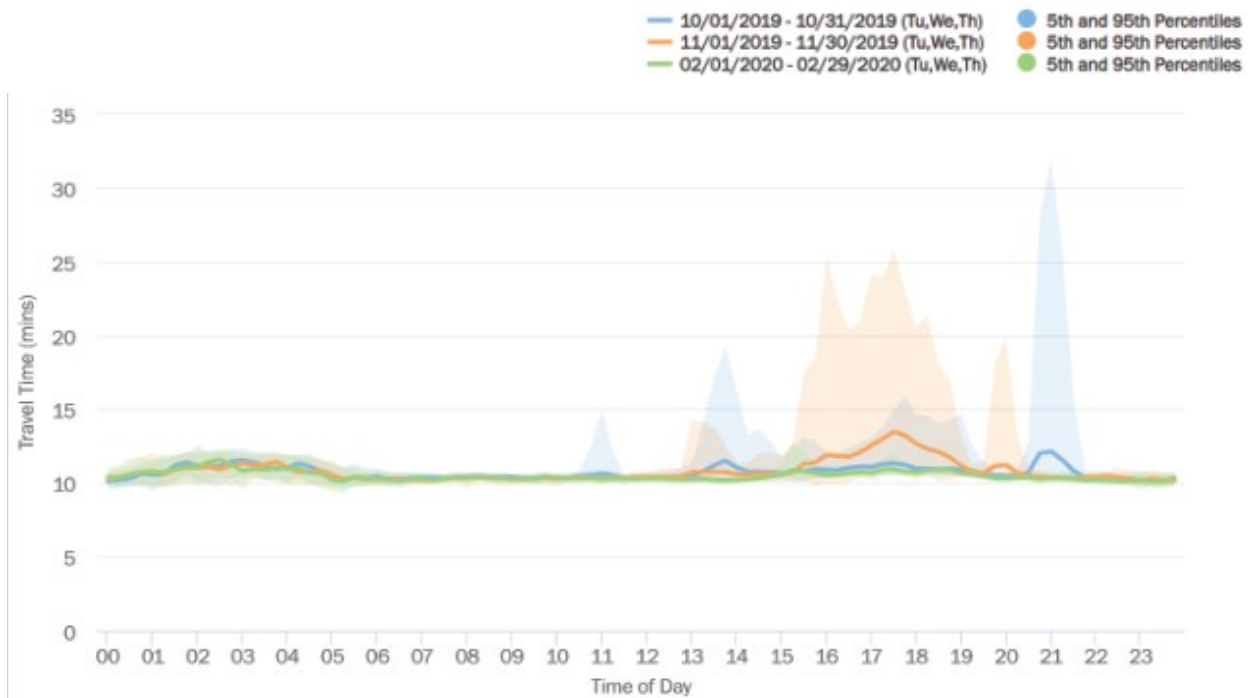


Figure 3-1: Northbound US 101 – Weekday Average Corridor Travel Time Runs

Source: INRIX (2019)

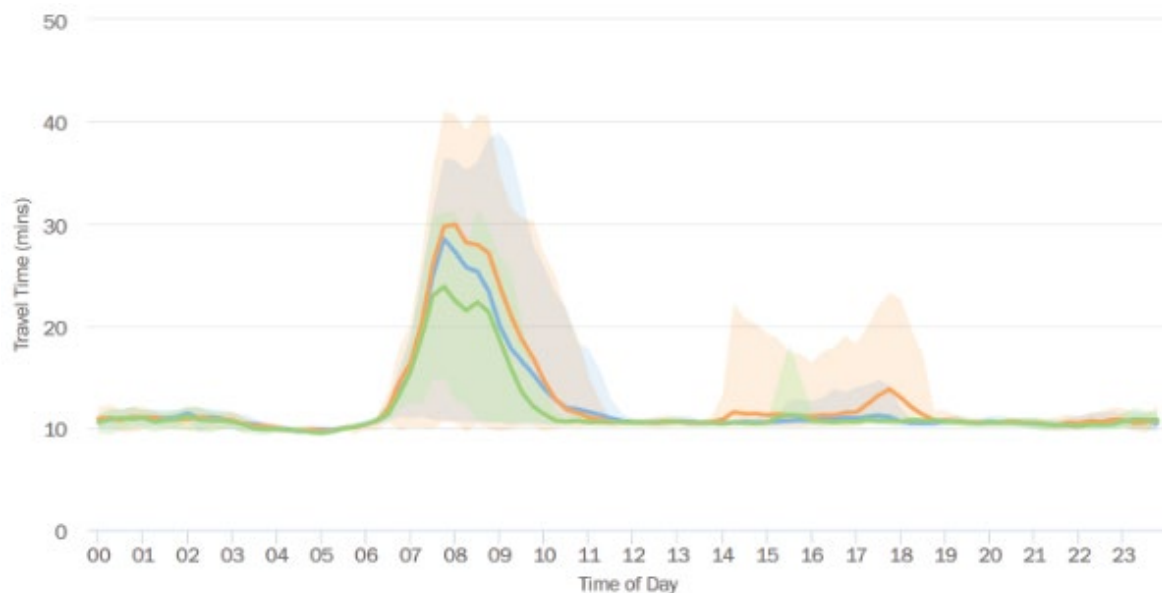


Figure 3-2: Southbound US 101 – Weekday Average Corridor Travel Time Runs

Source: INRIX (2019)

PTTL in the northbound direction could be considered in the future as traffic conditions change and congestion grows; however, it is not initially recommended as part of the pilot concept. Deteriorated corridor travel conditions impact transit reliability and on-time performance, negatively affecting the passenger experience and discouraging ridership. There have been several initiatives to improve corridor conditions on US 101 over the past few decades. Historically, this has focused on roadway widenings and the introduction of HOV lanes. However, as a result of the corridor’s constrained right-of-way and the high costs to expand the roadway,

regional agencies began to examine alternate strategies to improve travel through the corridor, including consideration of ramp metering and PTTL.

PTTL presents an opportunity to reduce the impacts of congestion on transit travel performance by leveraging existing right-of-way within the highly constrained corridor. Findings from the *Corridor Evaluation Report* (May 2021) indicate that PTTL provides an opportunity for transit travel time savings and improvements in transit time reliability, which are anticipated to result in a shift of some users from auto to transit, thereby reducing VMT and GHG emissions. Increased service efficiencies due to these improvements can lead to operating cost savings or generate additional farebox revenue. Furthermore, PTTL has the potential to provide greater benefits to services with a higher propensity of use by historically disadvantaged communities.

3.2. Project Overview

The study corridor boundary extends along the US 101 corridor from Mission Avenue in San Rafael to Atherton Avenue/San Marin Drive in Novato and crosses 12 interchanges and local road crossings. PTTL operations are initially proposed for the southbound direction only as the northbound direction does not experience recurring congestion. In the southbound direction, prior to the COVID-19 pandemic, significant congestion-related delays occurred for the duration of the a.m. peak period over much of the study corridor. During periods of high congestion and under specific operational criteria, buses would be able to utilize the outside shoulder for PTTL operations. Buses would use existing ramps, bus bypass lanes, and auxiliary lanes, in addition to the shoulder, to create a continuous transit priority segment between De Long Avenue in Novato and south of North San Pedro Road in San Rafael. This is defined as the pilot limits and no PTTL use is currently proposed outside of those limits.

In the proposed system, local public transit routes would utilize the PTTL on the outside shoulder when freeway speeds fall below 35 mph to travel between existing in-line stops on US 101. Express routes would also have the option to utilize the PTTL (instead of the HOV lane) and would remain on the mainline shoulder through all interchanges except where they would utilize the on- and off-ramps and bus bypass road at Ignacio Boulevard (where there is no stop on the bus bypass road) and Miller Creek (where the bypass road has a bus pullout), allowing express routes to bypass local routes and avoiding the potential for bus bunching.

The project study corridor is shown in **Figure 3-3** and the proposed PTTL pilot configuration is shown diagrammatically in **Figure 3-4** below. A more detailed exhibit of the proposed configuration, including the proposed use of shoulder lanes, auxiliary lanes, and exit lanes, is provided in **Appendix A**.

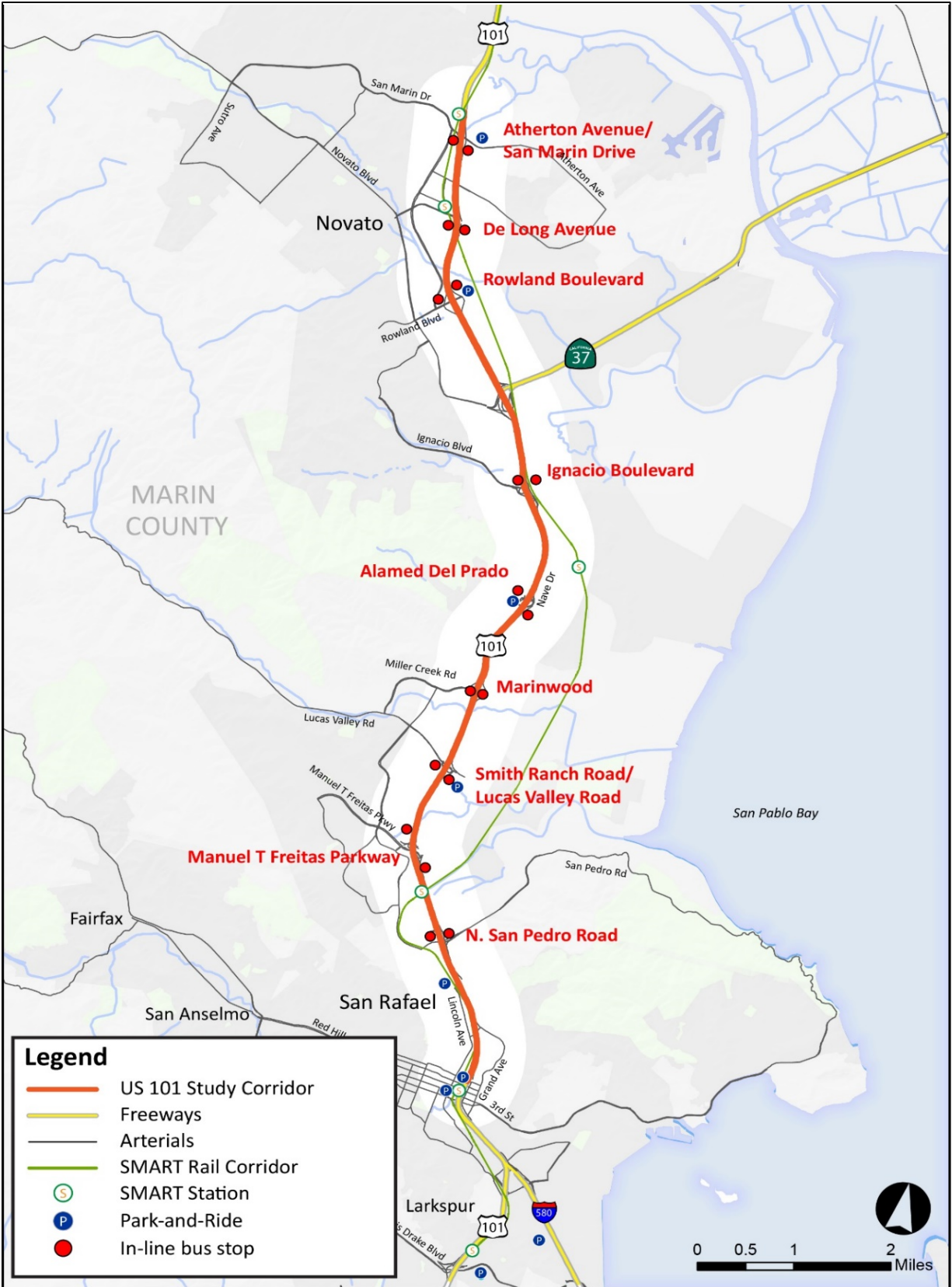


Figure 3-3: Project Study Corridor

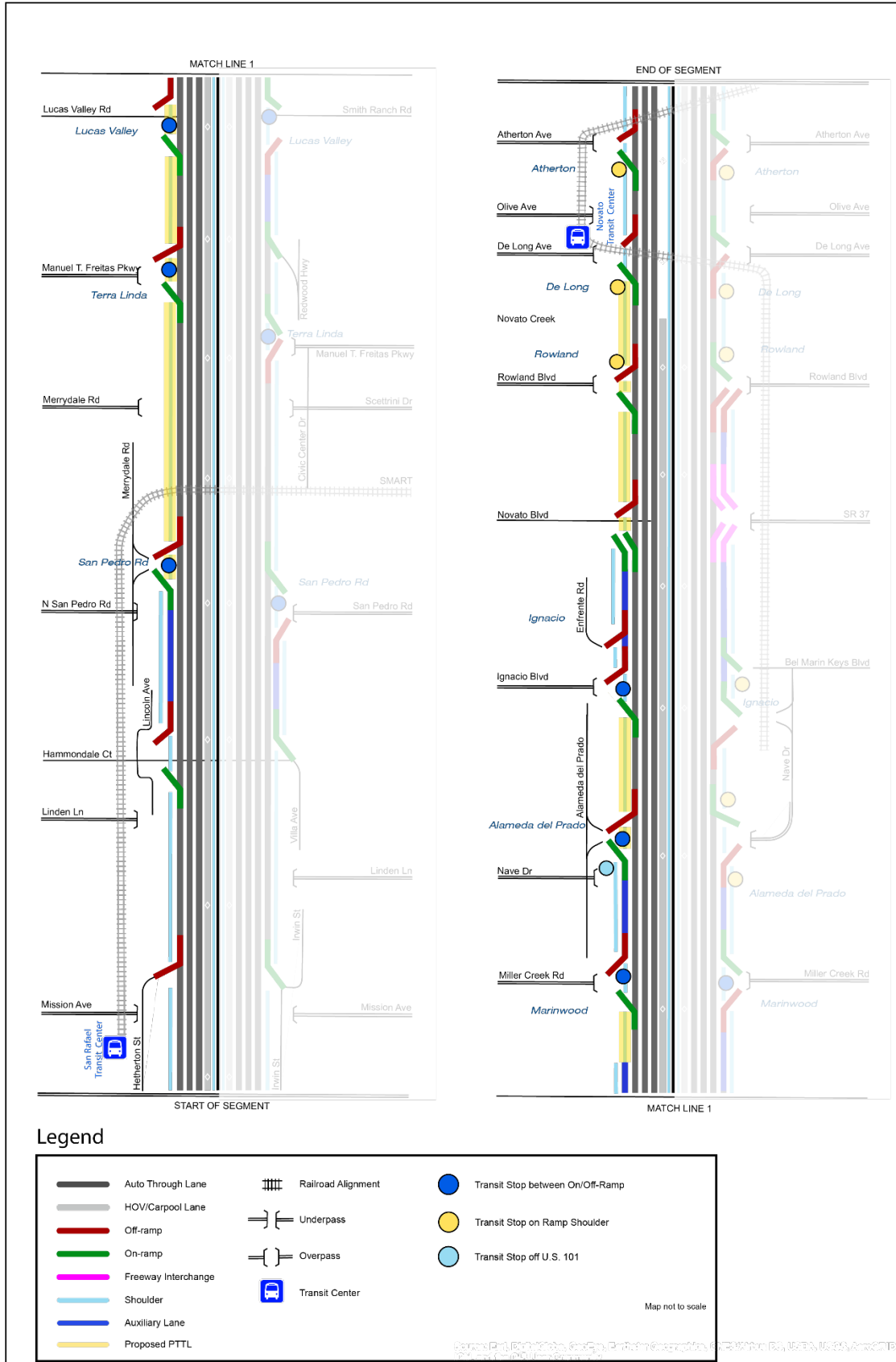


Figure 3-4: Proposed PTTL Configuration
 Note: diagram is conceptual and not to scale

3.3. Corridor Transit Network

The US 101 corridor is the spine of Marin County’s transit network for both local and regional transit. The highway is uniquely configured with in-line transit stops located along the interchange ramps for local, express, and limited-stop bus routes. The PTTL concept does not include any modifications to the in-line transit stops and will maintain them as integral components of the proposed PTTL concept design.

Fifteen public transit routes operate on at least a portion of the 11-mile US 101 corridor segment between Novato and San Rafael. These routes are all operated by GGBHTD, although some local routes are within the Marin Transit route network. Four of the routes operate express from Sonoma County to San Francisco and thus do not stop within the study corridor. Routes that operate on US 101 feature a range of stop patterns at in-line stations, including express, limited-stop, and local service. Some routes, notably Marin Transit routes, only use US 101 for specific segments between local destinations. As shown in **Figure 3-5**, US 101 is the central travel corridor for the study corridor transit network, with routes relying on US 101 for local and regional connections.

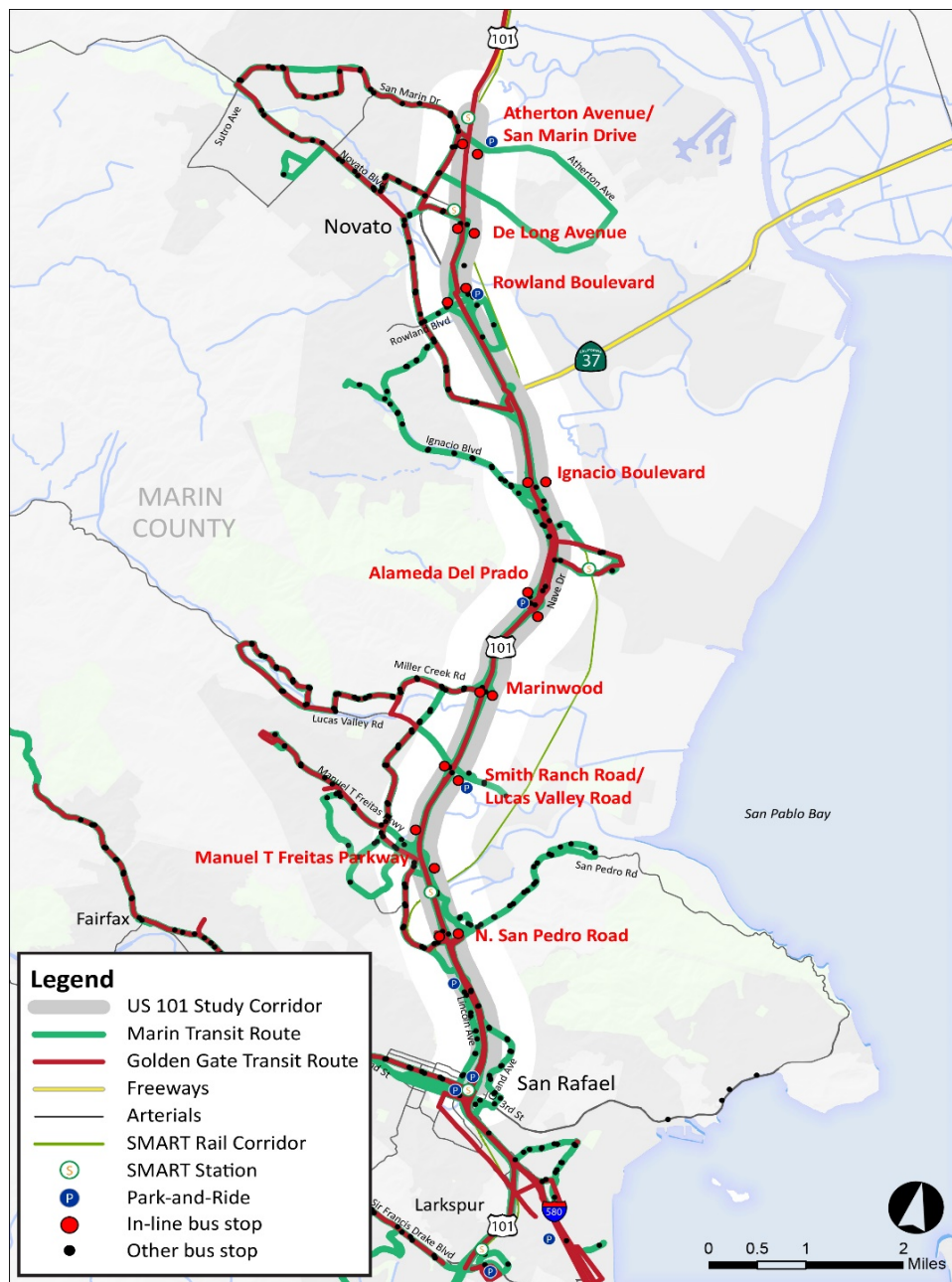


Figure 3-5: Corridor Transit Network

Source: Marin Transit, Golden Gate Transit (2019)

3.4. Corridor Transit Service

US 101 supports a robust and complex transit system with a wide range of service patterns and operations. On an average weekday, there are more than 350 individual transit bus trips that occur along the study corridor, with schedules starting as early as 4:00 a.m. and ending as late as 1:30 a.m. During the peak hour, there are approximately 22 different buses traveling in the peak direction alone.

The information presented in this chapter reflects service patterns prior to the impacts from COVID-19. While some routes and schedules have been modified due to COVID-19 ridership impacts, the transit operators are slowly restoring service consistent with the restoration of demand.

The US 101 route network in northern Marin County is comprised of three general service patterns:

- Internal Marin:** Routes that exclusively serve Marin County and facilitate internal trips (corresponding to the Marin Transit routes in **Figure 3-6**). These four individual routes typically stop at each in-line bus stop when using US 101 and may deviate from the US 101 corridor to serve local roads. Each route stops at San Rafael Transit Center and serves Redwood Boulevard in Novato.
- Marin – San Francisco:** Routes that provide service between San Francisco and Marin County, with local stops in Marin County off the US 101 corridor. These six individual routes have a range of stop patterns on US 101, but typically make several stops at in-line bus pads. In addition, most of these routes stop at San Rafael Transit Center and along Redwood Boulevard in Novato.
- Sonoma–San Francisco via Marin:** Routes that provide express service between Sonoma and San Francisco Counties, with limited or no stops in Marin County and no route deviations off the US 101 corridor. Only one of the five routes (GGT Route 101) has a stop in Marin County.

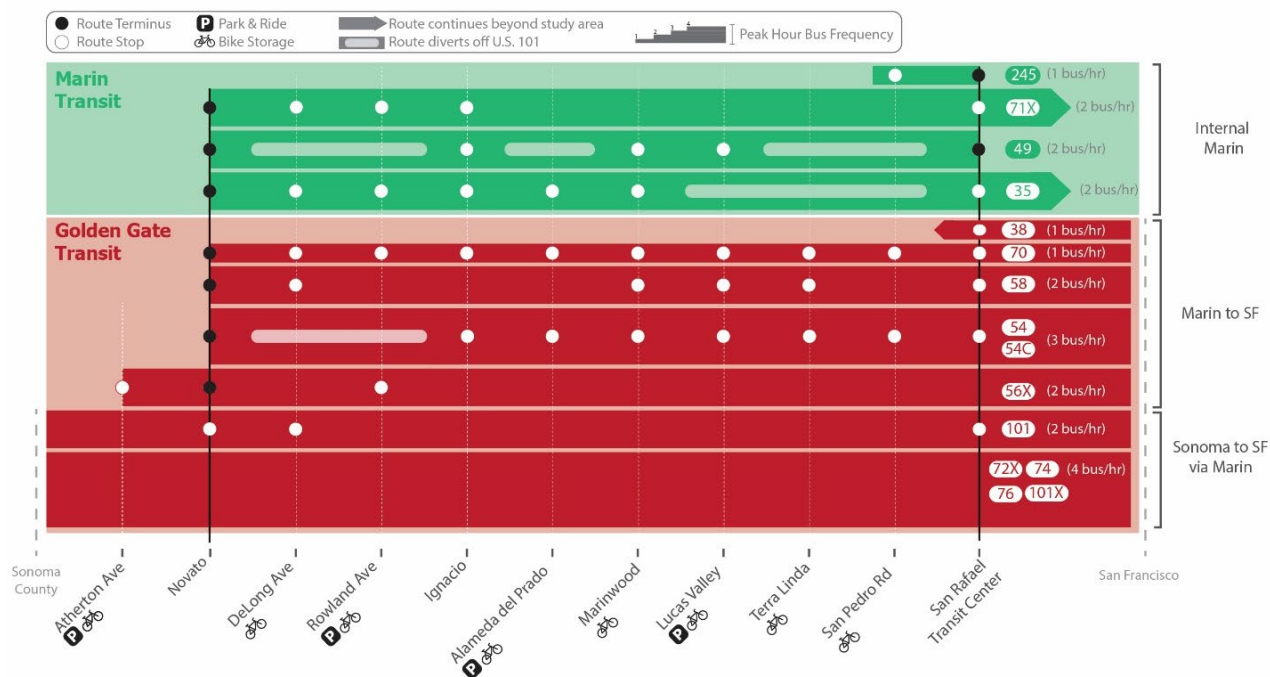


Figure 3-6: Existing Corridor Transit Network

Source: Marin Transit, Golden Gate Transit (November 2019)

Note: Does not include Sonoma County Transit Route 38, which prior to COVID service modifications, operated express from Sonoma County to the San Rafael Transit Center via SR-37 and US 101

3.5. Geometric Improvements

Improvements to accommodate PTTL will predominantly require lane restriping to increase outside shoulder widths along the freeway. Caltrans standard taper lengths at the beginning and end of the restriping areas are recommended to provide lane consistency and driver comfort. **Table 3-1** describes the striping changes that are proposed depending on the existing shoulder widths.

Table 3-1: Proposed Restriping

Condition	Proposed Restriping
Outside shoulder less than 10', or 10' adjacent to a vertical barrier; inside shoulder between 2' and 8' or 15' or greater	Restripe corridor segment shifting up to 3' from the inside shoulder to the outside shoulder
Outside shoulder less than 10'; inside shoulder 2' or less or between 8' and 15'	Reduce width of #2 and/or #3 lanes by 1'; maintain 12' for the outside general purpose lane and HOV lane to accommodate larger vehicles

New pavement markings and signage will be required to denote the beginning and end of PTTL operations in accordance with the California Manual on Uniform Traffic Control Devices (CA MUTCD) and the California Traffic Control Devices Committee (CTCDC), the anticipated body for determining signage and markings for statewide PTTL implementation. Related pavement markings and signage will be refined in future project phases based on Caltrans guidance, state-adopted standards, and state legislation, as applicable. They are anticipated to be subject to approval by the CTCDC prior to implementation. It is noted that the term “transit bus” is not currently defined by the California Vehicle Code and thus may not be enforceable without further state action.

There are approximately 33 drainage inlets in the outside shoulder in the southbound direction within the study corridor, 16 of which are in segments proposed for PTTL in this concept. These inlets are currently unlikely to be suitable for smooth travel for PTTL operations and will likely require pavement transitions for smooth operation. The inlet grates will be adjusted to be structurally reinforced and to eliminate bumps within PTTL. No drainage system modification is anticipated for the pilot implementation.

Based on the available as-builts, the structural pavement section materials utilized on the outside shoulder and mainline in the southbound direction are similar from Mission Avenue to the SR-37/South Novato Boulevard interchange. Between SR-37/Novato Boulevard and Atherton Avenue, a 0.10-foot Hot Mix Asphalt (HMA) overlay was added on the mainline and three feet into the shoulder. It is recommended the rest of the shoulder have HMA overlay to fix the uneven pavement. Besides the overlay, the existing outside shoulder structural section and the mainline structural section are similar in the southbound direction. Structural testing will be required in a subsequent project phase to confirm pavement suitability for a pilot project.

3.5.1. CHP Enforcement Areas

The PTTL concept includes the provision of four (4) additional CHP enforcement areas. These areas would be pullouts adjacent to the shoulder where the CHP could stop and function outside of the PTTL path of travel. It is noted that the CHP would have the ability to continue to utilize the shoulder at all times, with any bus operating in the PTTL merging into the adjacent general-purpose lane to bypass the PTTL obstruction.

A 16-foot-wide by 75-foot-long CHP enforcement area is proposed adjacent to shoulders, approximately in the middle of two interchanges where shoulder-running PTTL are proposed. The enforcement areas shall be placed in consultation with CHP and at locations without adjacent soundwalls and with adjacent traversable slopes. Under the proposed concept plan, four CHP locations are proposed along the study corridor between the following interchanges:

- North San Pedro Road and Manuel T. Freitas Parkway
- Manuel T. Freitas Parkway and Lucas Valley Road
- Nave Drive and Ignacio Boulevard
- SR-37/South Novato Boulevard and Rowland Boulevard

3.6. Operations

Caltrans is in the process of developing guidance for PTTL operations, including defining operational, geometric, and enforcement parameters for consistent PTTL implementation across the state. Indications from Caltrans, however, are that the operational guidance will reflect several of the precedents established nationally for PTTL operations. The proposed operational parameters for use of the PTTL follow these precedents, and include the following:

- Authorized transit vehicles will be permitted to utilize PTTL when freeway speeds fall below 35 mph
- Authorized transit vehicles may travel in the PTTL up to 15 mph faster than the adjacent general-purpose lane, not to exceed 35 mph
- When auxiliary lanes are present, buses will utilize the auxiliary lane instead of the shoulder
- Buses must rejoin the general purpose lanes to yield to blockages in the shoulder such as incidents, stalled vehicles, debris or flooding, and enforcement activity

Conditions warranting PTTL operations will vary based on congestion but based on historical data are primarily expected to be met during the weekday morning peak period. Based on traffic conditions as documented in the *Existing Conditions Report* (September 2020), PTTL operational parameters would most frequently be met on weekdays between 7:00 a.m. and 9:30 a.m. in the southbound direction, but operations would be permitted at any time that the operational parameters are met, resulting from recurring or non-recurring congestion. PTTL pilot operations will be further defined in subsequent project phases during the development of the ConOps.

PTTL implementation would not require or be associated with any modifications to the location or configuration of in-line bus stops. Routes serving local stops would also use on- and off-ramps and bus bypass lanes as they currently do today to access existing stops. Express routes, when using the PTTL, would remain on the mainline shoulder through most interchanges where a PTTL is provided and will be required to merge into the approaching on-ramp traffic to cross the entry ramps. To navigate these segments, buses in the PTTL shall yield to vehicles on the ramps. At Ignacio Boulevard (where there is no stop on the bus bypass road) and Miller Creek Road (where a bus pullout is proposed for the bypass road), express routes can utilize the bus bypass roads at these interchanges as part of the PTTL system.

Further discussion of bus operations through the several ramp conditions that exist within the corridor is included in the *Pilot Operations Plan* (February 2021)

3.6.1. Transit Communications and Operator Training

Transit dispatchers and PTTL bus drivers would communicate—in a similar manner as they do today—regarding field conditions and operations that may affect PTTL operations. Standard communications protocol would be developed for how PTTL information is dispatched to bus drivers, and how drivers may communicate back with dispatch. Protocol would be developed in accordance with existing policies as part of future project efforts.

Marin Transit and Golden Gate Transit bus drivers would be required to undergo training to use the PTTL. A driver that has not been trained on PTTL operations could be assigned to drive routes within the project limits but would not be permitted to utilize the PTTL until they had completed training. It is expected that the training program would last from three to four days and would be attended by users of the facility, including transit drivers, transit supervisors, CHP, and emergency response partners. Select CHP and Caltrans staff should also participate in classroom sessions to understand the standard operating policies and practices. The training program will require both classroom and behind-the-wheel elements, with operators and dispatchers from the

transit agencies participating. The training program will inform participants on operating procedures for the use of the PTTL and navigation of obstacles, such as law enforcement activity in the shoulder.

Training programs from peer agencies, including MTS in San Diego and their transportation services provider, Transdev, may be referenced for the development of the training program. Details regarding the training program, including the agency responsible for its creation, would be determined as a part of the ConOps development. Further discussions with transit operators, DMV, Caltrans, and CHP are required to develop a detailed training program curriculum.

3.6.2. Maintenance

Caltrans maintenance crews have regular rotations for where they are assigned to pick up debris along the roadway, sometimes in support of sweeping operations. Freeway Service Patrol may also be contracted for sweeping, debris removal, and removing vehicles from the PTTL as needed. If one of the bus operators driving on the shoulder encounters debris and alerts dispatch at their next stop, the maintenance crew may receive instruction to go to the location of the debris immediately and clear the debris from the shoulder as soon as possible. They would be under no obligation to perform their duties in any way other than in accordance with Caltrans policies, procedures, and safe practices. Policies that may conflict with the immediate removal of debris or stalled vehicles, such as the 4-hour restriction noted in CVC Sec. 22651 (f), will be identified for resolution during the development of the ConOps.

However, expedited maintenance and repair activities would be preferred whenever possible, and especially in the peak periods when PTTL operational parameters are most likely to be met. It is requested that Caltrans provide transit operators with a courtesy notification for any planned maintenance in the shoulder to allow for driver notification.

3.6.3. Enforcement Conditions

Regulatory signage stating the restricted use of the shoulder and minimum fines would be installed along the PTTL segments of the corridor in compliance with state statutes and the CA MUTCD in place at the time of project implementation. The signage would be intended to enable CHP to enforce the sole use of the transit-only shoulder lanes by transit vehicles. See Chapter 6.3.2 for information about the steps needed to provide CHP with the authority to enforce activity in the PTTL.

4. PROJECT COSTS AND BENEFITS

Capital, operations, and maintenance costs were estimated for the project based on the proposed PTTL concept. These estimates are based on information currently known about the PTTL approval and design process. Pending state legislation and draft Caltrans guidance may modify the design and approval requirements for PTTL projects that could influence project costs, either positively or negatively. Estimates are provided for future project programming and will be revised in subsequent project phases.

4.1. Capital and Operating Cost Estimates

The major costs of implementing the PTTL pilot include the capital cost of the required infrastructure and ongoing operations and maintenance costs including training, enforcement, and maintenance. A detailed breakdown of costs and assumptions is provided in **Appendix B**. PTTL is expected to result in improved operational efficiency for the transit operators through increased reliability and reduced travel times. This efficiency would translate to a combination of on-time performance improvement and cost savings that could be utilized to assist agencies in post-COVID-19 transit recovery or be re-allocated to improve transit service in the corridor.

4.1.1. Capital Costs

An estimate of infrastructure costs was developed for the proposed PTTL system. Cost estimates include construction costs for the proposed infrastructure as well as design, environmental clearance, and construction management. Two separate estimates were developed: one assuming the project is implemented through the Caltrans Project Development process, and another assuming the project is implemented through the expedited Caltrans Design Engineering Evaluation Report (DEER) process. While the construction costs would be identical regardless of the process, the expedited DEER process would allow for cost savings in the review and approvals process. A summary of these estimated costs is provided below.

- Caltrans Project Development Process: **\$6,963,000**
- Caltrans DEER Process: **\$6,463,000**

4.1.2. Operator Training

The cost of operator training will be dependent on the number of operators who undergo training. Transit providers may elect to have all operators undergo PTTL training to allow for more flexibility in staffing operations or have just a subset of the operators undergo training to reduce the upfront cost of training.

The training program will require a mix of classroom and in-vehicle training. It is expected that the training program would last three to four days. As a result, the estimated cost of operator training is the cost of paying operators for three to four days of training times the number of operators undergoing the training. The determination of this cost will require further refinement based on anticipated staffing plans and usage from each of the involved transit agencies.

4.1.3. Maintenance

Maintenance-related costs will include sweeping of the shoulder lane and debris removal, as needed. Caltrans maintenance will be required to sweep the shoulder more often than without the PTTL, which incurs additional costs, and Freeway Service Patrol may also be contracted for sweeping or debris removal as needed. Based on maintenance costs from previous PTTL projects, an estimate of \$125,000 annually is assumed to cover these costs. Estimated maintenance costs will be further refined in subsequent project phases.

4.1.4. Enforcement

The sponsoring agency of the PTTL pilot should anticipate a need for one CHP full-time equivalent to staff the enforcement of the PTTL. Development of a staffing plan, and thus estimation of the associated costs, will

require coordination with CHP. It is anticipated that the costs of enforcement could range from \$90,000 to \$300,000 annually.

4.2. Project Benefits

PTTL operations provide several benefits for transit operations that result in an improved user experience. The increased ridership on transit resulting from improved service quality and travel time competitiveness creates the secondary benefits of reduced VMT and GHG emissions by converting auto trips to transit trips as well as increased farebox revenue for transit.

4.2.1. Potential Operations Cost Savings

The travel time reductions resulting from PTTL creates an opportunity for operating cost savings. Transit providers with an 85 percent on-time performance goal (for example, Golden Gate Transit¹) typically schedule based on the 85th percentile travel times to ensure on-time performance and provide services in a reliable manner. Therefore, estimating the decrease in 85th percentile travel time as a result of PTTL could inform the potential reduction in scheduled travel time for transit and corresponding operations cost savings or efficiencies.

Figure 4-1 visualizes the 85th percentile in-motion transit travel time results by time period and lane type for existing and with-PTTL conditions. As shown in the figure, the travel time benefits for transit using the PTTL could be significant during 85th percentile congestion conditions (exceeding a five-minute benefit over the HOV lanes and ten-minute benefit over general purpose lanes).

Accounting for reductions in 85th percentile travel time—and the resulting potential to reduce schedule travel times based on the improved reliability of service—there is a potential total savings of 780 bus-hours per year. Based on 2019 NTD data on average operating cost per revenue vehicle hour, that time reduction could result in an annual savings of \$212,000 in operating costs.

The above estimated potential operating cost savings assumes a 1:1 translation of reduced travel time to reduced revenue vehicle hours; however, it is worth noting that operating costs have been rising rapidly in recent years. Future savings may be higher than estimated, even if not all of the travel time savings can be captured in reduced operating hours.

The reduced travel time and improved reliability resulting from PTTL could have additional financial benefits outside of cost savings resulting from reduced schedule time. On-time performance could be improved by gaining additional layover time and the cost savings could be used to provide additional service on routes with increased ridership. Additional ridership associated with providing a faster and more reliable trip would be expected to generate additional farebox revenue.

¹ Golden Gate Transit, Short-Range Transit Plan (FY2019-2028)

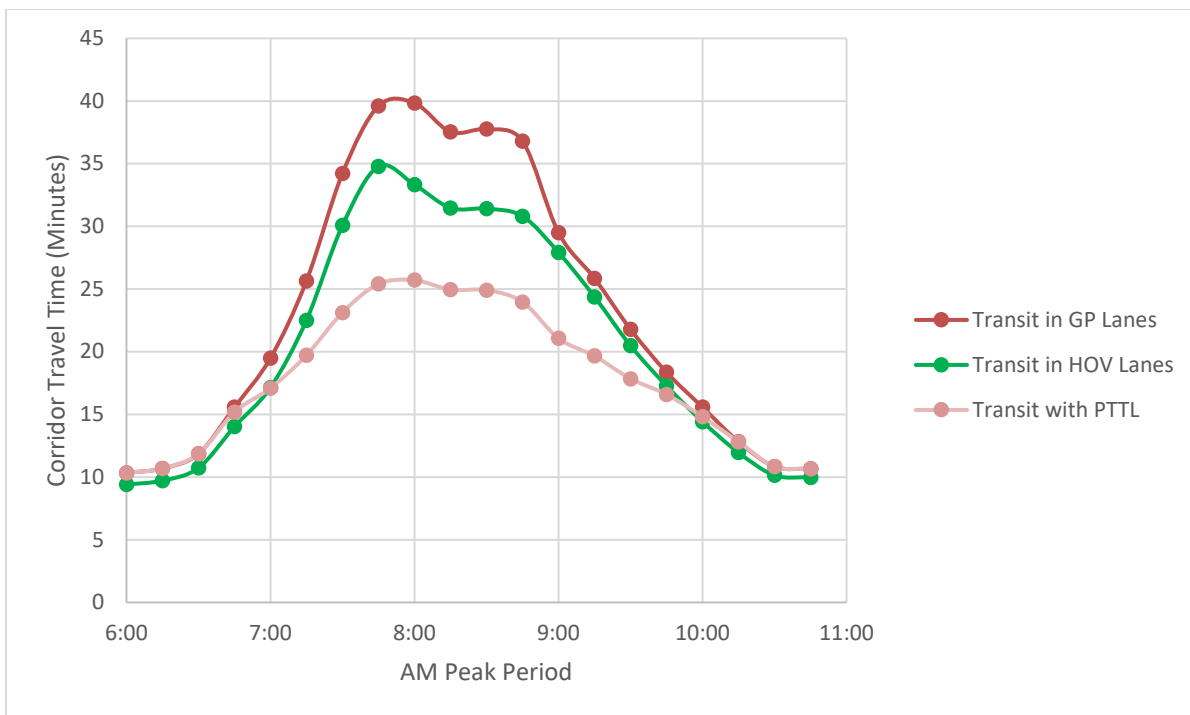


Figure 4-1: 85th Percentile In-Motion Transit Travel Times – Southbound A.M. Weekday (Study Corridor, Existing and With PTTL)

4.2.2. Ridership

The proposed scheme would reduce average travel times for local buses throughout the morning peak period, and for express buses during the busiest periods of the morning peak. This translates to shorter travel times for transit users and the potential for a corresponding six to eight percent increase in ridership based on those travel time savings. The PTTL would also improve reliability for transit by reducing the variability of bus travel times. This results in an improved user experience as it will allow for riders to expect more consistent travel times. The improved user experience resulting from greater reliability could also result in an increase in ridership. Though this analysis of travel times did not account for incidents or obstructions in the PTTL—stalled vehicles, debris, flooding, CHP activity, or the presence of maintenance vehicles, for example—it is anticipated that bypassing these both short and temporary blockages of the shoulder lane would have a relatively limited impact on bus travel time on a limited number of bus trips.

The increased ridership on transit resulting from improved service quality and travel time competitiveness creates the secondary benefits of reduced VMT and GHG emissions by converting auto trips to transit trips as well as increased farebox revenue for transit.

PTTL also has the notable benefit of demonstrating the benefits of transit priority strategies in Marin County. Drivers stuck in congestion on US 101 may give greater thought to using transit if they observe buses safely passing them and avoiding congestion during the peak commute periods. This may help build the perception of transit as a reliable, efficient, and environmentally sustainable solution for meeting mobility needs.



Source: TAM (2020)

4.2.3. VMT Impacts

The effects of mode shifts from auto to transit directly results in an estimated daily decrease of 924 miles of VMT during the a.m. peak period. This estimate reflects a conservative estimate, as the impacts of longer-distance person-trips that extend beyond the study corridor are not incorporated. **Table 4-1** summarizes the daily and yearly estimates of VMT reduction.

Table 4-1: Estimated Weekday VMT Reduction with PTTL

Total Person-Trips Shifted	90-120
Daily VMT Reduction	790-1,060
Annual VMT Reduction	196,250 - 265,750

4.2.4. GHG Emissions

Transportation is one of the leading sources of GHG emissions in California. Thus, a reduction in VMT and improved speeds along US 101 can result in an improvement in emissions. Based on the results from the Emission Factor Model (EMFAC2017) mobile source emissions inventory model, the estimated reduction in GHG emissions resulting from PTTL implementation is equivalent to 161 metric tons of CO₂e (MTCO₂e) per year, as shown in **Table 4-2**. The values represented in the table are a conservative estimate as noted in the VMT reduction section. Additionally, criteria pollutants such as reactive organic gases (ROG), nitrogen oxide (NOX), carbon monoxide (CO), sulfur dioxide (SO₂), fine particulate matter (PM_{2.5}), and coarse particulate matter (PM₁₀) would decrease or remain the same from PTTL implementation.

Table 4-2: CO₂e Emissions Reductions

Scenario	Total Metric Tons/Year (CO₂e)
Existing	65,321
With PTTL	65,160
Net Change	-161

4.3. Effects on Disadvantaged Populations

The Transportation Authority of Marin’s 2017 Strategic Vision Plan and 2019 Measure AA Strategic Plan both emphasize the need for equity in project deployments. As PTTL implementation would not be expected to have measurable negative impacts on local communities, its ability to meet equity goals is focused on the equitable distribution of project benefits to traditionally disadvantaged populations. PTTL implementation would potentially benefit existing and future transit riders by providing a more reliable and faster transit trip.

To assess the distribution of benefits associated with a PTTL implementation, demographic profiles were prepared for riders who use transit routes that travel along US 101 in the project study corridor. In general, transit riders on the corridor are more likely to be minority and lower income than the general Marin County population. Different route types will experience different levels of benefit from the project, as routes that serve multiple stops in Marin County are more likely to see travel time benefits from, and thus utilize, the PTTL. In considering potential differences in demographics between individuals traveling on routes with destinations internal to Marin County and out-of-county, the rider profiles were segmented into the three general service patterns described in the project’s *Existing Conditions Report* (September 2020): 1) Internal Marin; 2) Marin – San Francisco; and 3) Sonoma – San Francisco, via Marin.

The demographics of Internal Marin route passengers is notably different, as seen in **Table 4-3**, than both the overall demographics of the County and the demographics of other transit users in the corridor. Whereas routes that serve San Francisco have demographics comparable to the Marin County general population, the Marin Transit routes that provide internal Marin County trips have a disproportionately higher percentage of minorities, individuals with household income less than \$50,000, and individuals who speak a language other than English at home. Although the study corridor census tracts do not qualify as Communities of Concern based on Metropolitan Transportation Commission (MTC) definitions, the demographic cohort of local transit riders would qualify.

This difference is worth noting because local trips that serve local destinations typically have route patterns with frequent stops along the US 101 mainline and these routes stand to benefit the most with potential implementation of PTTL operations. Therefore, PTTL have the potential to provide greater benefits to services with a higher propensity of use by historically disadvantaged communities.

Table 4-3: Rider Demographics

Characteristic	Internal to Marin (MT 35, 49, 71X, 245)	Marin – San Francisco (GGT 38, 54, 54C, 56X, 58, 70)	Sonoma – SF, via Marin (GGT 72X, 74, 76, 101, 101X)	Marin County General Population
Minority %	80%	32%	31%	29%
Household Income <\$50K	46%	19%	22%	20%
Language other than English spoken at home	45%	9%	15%	23%
Daily average travel time savings for routes (minutes)	68.9	38.1	19.4	-

Source: MTC On-board surveys, 2017-2018; U.S. Census Factfinder, 2019

5. HIGHWAY SYSTEMS PLAN

Given the significant constraints in the US 101 and adjacent corridors, there are a number of projects planned or currently being advanced to improve mobility through these corridors. As part of the Highway Systems Plan contained in this chapter, consideration is given to the relationship between the various planned improvements and how they may influence the timing and configuration of PTTL. These projects include:

- Marin-Sonoma Narrows
- HOV Hours of Operations
- Ramp Metering Phases I and II
- Highway 101 Interchange and Approaching Roadway Study
- SR-37 Corridor Projects

These projects are providing improvements for multiple modes of transportation including vehicles, pedestrians, and bicyclists. **Figure 5-1** depicts how these projects interact with the PTTL project.

Caltrans District 4 recently developed the US 101 North Comprehensive Multimodal Corridor Plan (CMCP) in July 2020. A CMCP is recommended for the most congested State highway corridors within the District and includes a multimodal needs analysis for identifying improvement projects and strategies that help inform project programming and funding needs.

The goals of the US 101 North CMCP are to propose strategies to:

- Provide a safe transportation system to all users within the corridor;
- Reduce recurring freeway congestion and improve freeway efficiency in moving people;
- Improve trip reliability within the corridor;
- Support an accessible and inter-connected multimodal transportation system within the corridor;
- Reduce pollutants and GHG emissions within the corridor;
- Support economic prosperity;
- Efficiently manage transportation assets within the corridor to protect existing and future investment; and,
- Support land-use efficiency and climate adaptation.

The CMCP provides a comprehensive set of recommended strategies to address transportation needs for the multiple modes that use US 101. The Highway Systems Plan in this chapter focuses on the set of projects currently planned or in development that have the potential to influence the design or performance of PTTL and is not intended to be as comprehensive in nature as the CMCP.

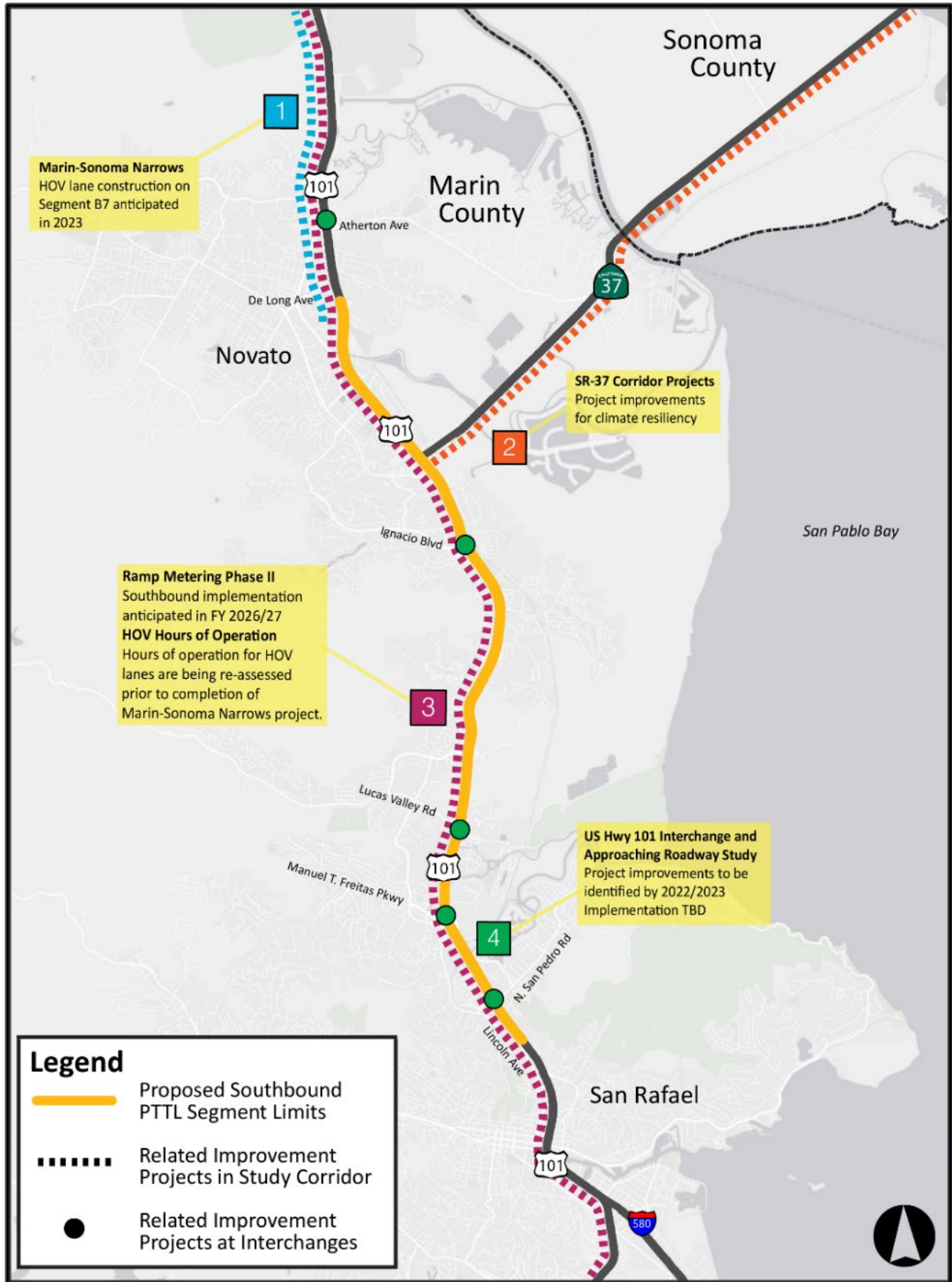


Figure 5-1: Planned Improvements within PTTL Study Corridor

5.1. Marin-Sonoma Narrows

The Marin-Sonoma Narrows (MSN) project consists of a series of facility upgrades along US 101 from SR-37 in Novato to Corona Road in Petaluma, including HOV lane construction, interchange modifications, bridge construction, ramp improvements, and highway widening, shown in **Figure 5-2**. Due to funding constraints, project delivery has been divided into a series of 13 contract packages that are being implemented by TAM, Sonoma County Transportation Authority (SCTA) and Caltrans, using a two-phase approach.

Three of the contracts overlap with the PTTL study corridor: MSN A1, MSN A2, and MSN A3. The Segment A contracts were completed as of 2014 and consist of creating northbound and southbound HOV lanes at various locations between SR-37 to 1.4 miles south of the Redwood Landfill Interchange. These HOV lanes have been accounted for in the PTTL pilot concept and related analysis.

The remaining contracts take place north of the PTTL study corridor and most have been completed. However, MSN B7, which extends the HOV lane from its current terminus in Novato up to the Marin/Sonoma County Line, recently received funding and is anticipated to begin construction in 2023 and be completed by 2025. Other remaining projects include a utility relocation effort along the MSN B7 project area (MSN B8), San Antonio Creek Bridge construction (MSN B3), northbound and southbound HOV lane construction in Sonoma County (MSN B2 Phase II and MSN C2), bridge replacement and sound wall construction (MSN C2).

The MSN Project, specifically the upcoming B7 segment, will benefit inter-regional travel for autos and transit with the extension of HOV lanes through Marin County. The additional roadway capacity will address congestion north of Novato and improve travel for inter-regional trips. It will specifically benefit inter-regional transit by providing a continuous HOV lane for express buses through Marin County.

As the project is to the north of the proposed PTTL segment, it will not directly affect the proposed geometrics for the PTTL segment. However, additional roadway capacity to the north of the PTTL limits may increase the amount of traffic on US 101 within the PTTL segment, thereby further increasing congestion in that segment. The increased traffic would further increase the need for and the benefit of PTTL. The timing of the construction of MSN segment B7 does not affect PTTL implementation as they are not geographically coincident.

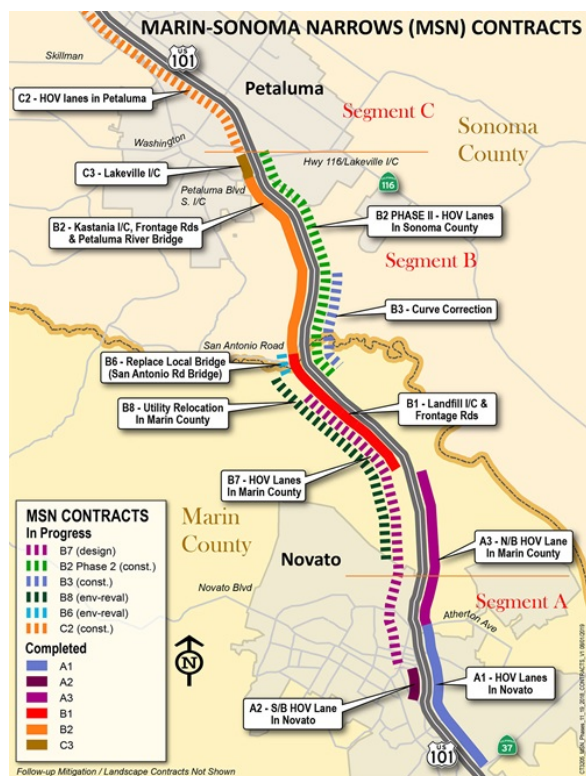


Figure 5-2: Marin-Sonoma Narrows Study Corridor

Source: Caltrans

5.2. HOV Hours of Operations

Currently, Marin County and Sonoma County have differing hours of HOV operations since the HOV lanes do not connect across county lines. Marin County's HOV lane hours of operations currently are Monday to Friday, 6:30 a.m. to 8:30 a.m. in the southbound direction and 4:30 p.m. to 7:00 p.m. in the northbound direction. In Sonoma County, the HOV lane hours of operation are Monday to Friday, 7:00 a.m. to 9:00 a.m. and 3:00 p.m. to 6:00 p.m. in both the northbound and southbound directions. Golden Gate Transit has been pursuing expanding the hours of operation of the HOV lanes in Marin County to provide operational benefit and reliability benefit to its express buses through Marin County.

Since the MSN project closes the gap between the HOV lanes in both counties to provide a continuous facility, the hours of operation will need to be synchronized. Expanded HOV hours of operation will provide improved reliability and travel times for inter-regional express bus transit specifically during the peak's shoulder periods.

If implemented, the modified HOV hours of operation would apply to the area where PTTL lanes are proposed. This may affect express bus performance during the shoulder periods to the benefit of express buses. As a result, some express bus trips may elect to stay in the HOV lane instead of using the PTTL depending on traffic conditions in the HOV lane. It should be noted that changing the HOV lane hours of operation does not benefit transit travel times in the peak of the peak period, which the HOV lane is already degraded, and thus express buses would still accrue benefit by using the PTTL instead of the HOV lane. In addition, changing the HOV hours of operation does not affect local/non-express transit services on US 101 that would benefit to the greatest extent from PTTL. Therefore, while HOV hours of operation can have notable benefits to express transit services, it doesn't have significant implications on the benefits of the PTTL. The timing of the implementation of modified HOV hours of operation does not materially affect the timing of PTTL implementation.

5.3. Ramp Metering Phases I and II

The Ramp Metering Program along US 101 is part of the larger Freeway Performance Initiative, a multi-agency partnership focused on technology applications to reduce the effects of congestion. The construction of ramp meters, led by Caltrans, consists of two phases.

Phase 1 consists of metering the US 101 northbound corridor and installing traffic operations systems, including changeable message signs and traffic detection loops. Phase I extends from southern Marin County from Spencer Avenue to Sir Francis Drake Boulevard. Construction of this phase began in April 2019. This phase does not impact the proposed PTTL study corridor.

Phase II consists of metering the US 101 southbound corridor and remaining northbound on-ramps. Construction for this phase was set to begin in FY2026/27; however, it is likely that the wide-reaching impacts of the COVID-19 pandemic have set back project timelines.

Ramp metering systems and equipment currently exist at the following locations:

- Mission Avenue northbound on-ramp
- Lincoln Avenue northbound and southbound on-ramps
- Ignacio Boulevard northbound on-ramp
- SR-37/South Novato Boulevard northbound and southbound on-ramps
- Rowland Boulevard Interchange northbound and southbound on-ramps
- De Long Avenue northbound and southbound on-ramps
- Atherton Avenue/San Marin Drive northbound and southbound on-ramps

Although ramp metering equipment exists at these locations, the ramp metering system is currently not activated anywhere within the study corridor. Metering for the remaining interchanges are listed in the 2017

Ramp Metering Development Plan (RMDP)² for District 4 as planned, proposed, or programmed projects. The ramp metering project is included in the Caltrans State highway Operation and Protection Program (SHOPP).

Generally, ramp meters regulate the release and speed of vehicles entering the freeway, resulting in a more efficient freeway mainline operation. The goal of the ramp metering installation is to improve overall throughput on US 101, benefitting auto movements, particularly for longer-distance regional traffic.

As discussed in Chapter 6, the PTTL pilot could be implemented and operational with three to four years. However, it is a minimum of five years, and likely longer, prior to implementation of Ramp Metering Program Phase II. Therefore, the pilot likely would have already been implemented (and potentially concluded) by the time ramp metering will be operational. It is unlikely that the construction and operation of ramp meters will affect the pilot project. Thus, the PTTL pilot concept assumes that ramp meters are not operational, and the current ramp configuration is maintained.

If the PTTL project is successful and the improvements are retained, it could be integrated with ramp metering technology to the benefit of corridor operations and safety.

One option for the use of technology at ramp meters is the use of connected vehicle technology; this involves the installation of equipment on board buses, which communicates wirelessly with the ramp meter (and also requires equipment upgrades) to serve as the detection system to activate dynamic warning systems and/or actuation of longer gaps for vehicles at the ramp meter. While a connected vehicle interface offers more interactive communication between the bus and the ramp metering equipment, it is challenging to implement given that PTTLs will be used by buses travelling multiple routes and operated by multiple service providers. As a result, any ramp metering improvements requiring onboard technology in the transit fleet should occur concurrently with transit fleet upgrades or purchases.

In California, many of the ramp meters rely on loop detectors placed upstream of an entrance ramp to determine mainline traffic conditions and adjust metering according to the measured level of local congestion. As a result, ramp metering could thus also be configured to detect oncoming buses with loops added to the PTTL and provide a dynamic warning system for drivers entering the mainline freeway if an oncoming bus is detected and/or hold vehicles on the ramp until the bus has passed the merge or weave point. The advantage of detector loops is that they are inexpensive to install and do not require onboard equipment on buses. Loops, however, come with the trade-off of being less consistent in detecting vehicles and may require more ongoing maintenance. Once ramp metering is operational, technology interventions could be incorporated to further reduce conflicts points by actuating longer gaps or triggering the signal to hold traffic until the bus passes the conflict point. Further discussions will be required with Caltrans if the ramp metering project advances within the time horizon of PTTL as there is currently no guidance in Caltrans' Ramp Metering Design Manual for the integration of PTTL operations.

An additional consideration is to include ramp bypass lanes for buses as part of the Ramp Metering Phase II project. This would benefit buses that access/egress US 101 in various locations along the corridor.

The costs and benefits described within the *Corridor Evaluation Report* (May 2021) do not assume ramp metering nor account for the potential effects of ramp meters on mainline traffic, and thus the potential performance of PTTL. It is recommended that the integration of ramp metering and PTTL be considered at a future date either as part of the Ramp Metering Phase II or at the time that permanent (post-pilot) PTTL operations are evaluated.

The installation of ramp metering on this corridor optimizes corridor throughput and may reduce travel time for longer-distance auto trips and overall congestion. This may serve to contribute to an increase in VMT by autos. By providing PTTL in this corridor, it would provide local trips and trips on local transit with benefits that may serve to counteract that potential for VMT increase.

² 2017 Ramp Metering Development Plan. Caltrans, February 2018. <https://dot.ca.gov/-/media/dot-media/programs/traffic-operations/documents/ramp-metering/rampmeteringdevelopmentplan-a11y.pdf>

5.4. Highway 101 Interchange and Approaching Roadway Study

The Highway 101 Interchange and Approaching Roadway Study's (Interchange Study) objective is to identify operational and safety improvements at twelve US 101 interchanges, approaching roadways, and adjacent intersections. The Interchange Study will evaluate existing conditions and provide tailored recommended actions based on the identified needs. The Interchange Study is managed by TAM in collaboration with GGBHTD, Marin Transit, and Caltrans.

The Interchange Study is currently conducting a survey to understand what is important to drivers, transit riders, bicyclists, and pedestrians that use the interchanges to help inform improvements. The project schedule anticipates that the study will have preferred improvements at the various interchanges by 2022 or 2023. Three interchanges will be prioritized for the Caltrans PID process, and there may be short-term improvements identified for SHOPP or local improvement projects.

Since the Interchange Study timeline and interchange locations overlap with the PTTL implementation schedule, coordination between both projects is needed. There are a few areas of opportunity for mutual benefits with the implementation of both projects. Transit priority treatments—such as providing HOV or bus priority lanes on the ramps—would benefit bus access to the PTTL and overall bus efficiency and reliability alongside PTTL. Improved ramp operations will provide benefit to all vehicles, as well as support the safety and effectiveness of PTTL. The Interchange Study will identify pedestrian and bicycle access improvements to the study corridor bus stops as well as the enhancements to park-and-ride access, to improve transit access. The PTTL pilot would improve transit reliability and competitiveness. The Interchange Study and PTTL seek to enhance different aspects of the transit trip, collectively making transit more desirable and accessible, thereby increasing transit ridership.

Of the twelve interchanges included in the project, shown in **Figure 5-3**, the following five also overlap the PTTL study corridor:

- Merrydale Road/North San Pedro Road
- Manuel T. Freitas Parkway
- Lucas Valley/Smith Ranch Road
- Ignacio Boulevard
- San Marin Drive/Atherton Avenue

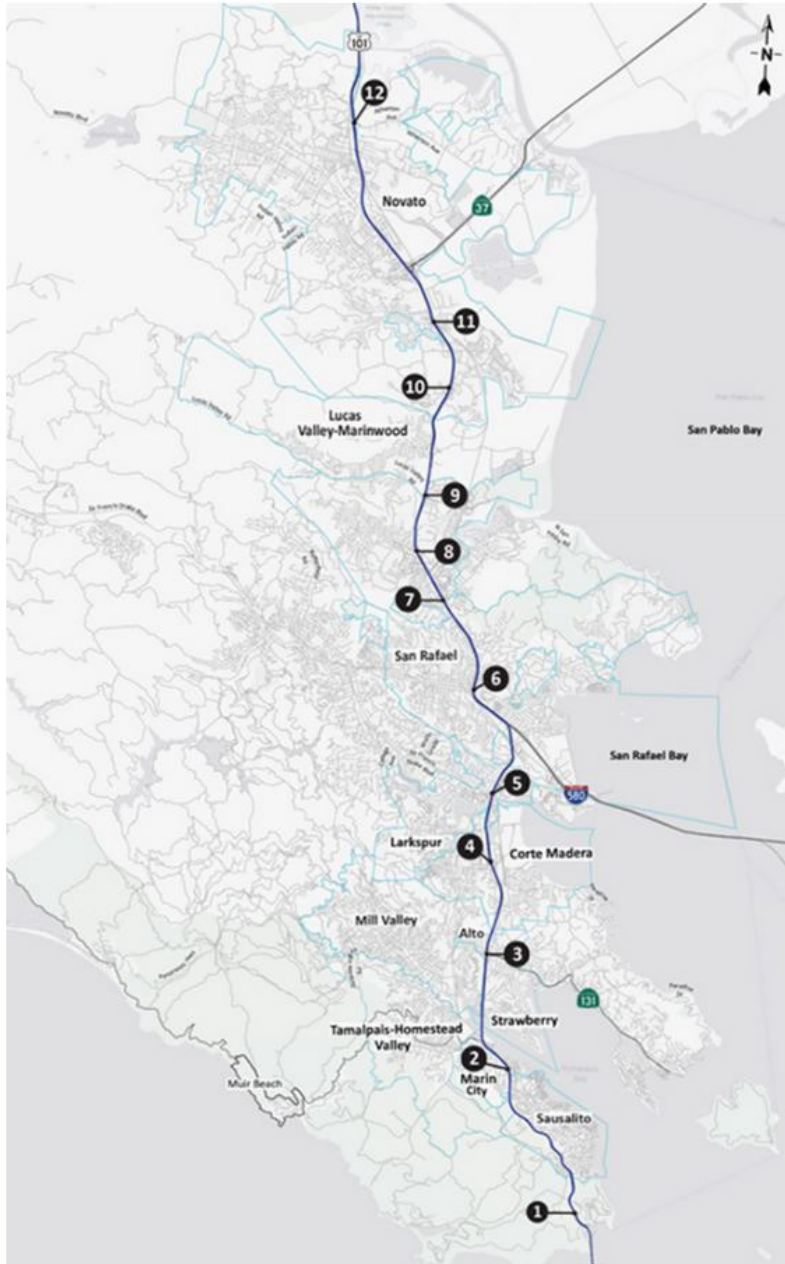


Figure 5-3: Highway 101 Interchange and Approaching Roadway Study Corridor

Source: TAM

Of the five interchanges within the study corridor, the following four have existing transit stops located on the ramp shoulder or between the on- and off-ramps:

- Manuel T. Freitas Parkway
- Lucas Valley/Smith Ranch Road
- Ignacio Boulevard
- San Marin Drive/Atherton Avenue

The progress of improvements at these interchanges will need to be coordinate with the PTTL pilot to ensure that the interchange improvements do not impact PTTL operations and that pedestrian and bicyclist access to the bus stops are maintained or improved with the project.

5.5. SR-37 Corridor Projects

Caltrans is currently conducting multiple projects along SR-37 with the goals of improving mobility across all modes; maintaining public access; increasing corridor resiliency to storm surges and sea level rise; and integrating transportation, ecosystem, and sea level rise adaptation into one design. SR-37 extends for 21 miles from US 101 in Novato to I-80 in Vallejo through highly sensitive marshlands. The corridor has already experienced flooding which is expected to continue in the upcoming years due to extreme weather from climate change.

The projects have been separated into three project areas, shown in **Figure 5-4**. There are currently five projects identified in Segment A between US 101 and SR-121 that aim to address the near-term and long-term challenges. These projects are either managed by Caltrans through SHOPP or are being led by MTC. **Table 5-1** includes the five projects and their anticipated timeframes, spanning from planning and environmental to construction.



Figure 5-4: SR-37 Corridor Projects Study Corridor

Source: Caltrans

Table 5-1: SR-37 Corridor Projects Connecting to US 101

Project Name	Description/Purpose	Timeline
SR-37 Pavement Rehabilitation CAPM	Rehabilitate the mainline and ramps pavement, replace metal beam guard rails with Midwest Guardrail systems, and upgrade curb ramps.	Q4 2020 to Q3 2026
SR-37 Resilience Project and SR-37 Flood Reduction Project	Address recurring flooding due to seasonal rain and high tide events as interim improvements.	Q3 2022 to Q1 2025 Q2 2019 to Q3 2026
SR-37 Ultimate SLR Resilience Design Alternatives Assessment	Improve traffic flow, accommodate multimodal users, improve resiliency of infrastructure, and provide ecological and hydrologic enhancements to landscape.	Q3 2020 to Q4 2021
SR-37 Corridor Sea Level Rise and Complete Streets	Reconstruct SR-37 to address sea level rise and recurring flooding, while including Complete Streets features to address multimodal bicycle and pedestrian use.	Q1 2020 to Q1 2021
SR-37 Corridor PEL Study	Identify transportation needs, environmental issues, and community expectations as well as involve development of broad corridor strategies to address environmental issues.	Q3 2020 to Q2 2022

Source: Caltrans

The SR-37 projects will collectively serve to increase traffic flow on SR-37, which has the potential to then funnel more cars onto US 101 during peak periods. This would then result in additional congestion on US 101 south of SR-37, which includes the PTTL segment. The completion of any capacity enhancements on SR-37 therefore has the potential to increase travel delay on US 101, thereby increasing the need for and benefits from PTTL on the US 101 corridor. Options for transit improvements along SR-37 are being considered as part of overall corridor efforts. Should new bus services be proposed for the SR-37 corridor, then to the extent those services connect onto US 101 those new services would also benefit from the PTTL implementation.

As the exact nature and timing of the improvements on SR-37 are not yet known at this time, the relationship to US 101 PTTL is unknown. However, it is not expected that the SR-37 improvements would require any modification to the PTTL geometrics or operations. Future SR-37 efforts should consider the opportunity of the US 101 PTTL to offset potential VMT impacts and improve regional transit.

5.6. Systems Plan Summary

The investment projects described above will provide improved access and benefit to inter-regional trips, mainline operations for autos, pedestrians and bicyclists, and transit operations. PTTL is unique amongst the projects identified in that it primarily benefits local trips, and particularly local trips most frequently taken by historically disadvantaged populations, which provides clear equity benefits. PTTL can also uniquely serve as a catalyst for encouraging a sustainability shift from auto drive-alone trips to transit. Therefore, PTTL serves as a critical component of the overall US 101 mobility strategy. Due to the distinctive nature of the various ongoing projects and differences in geographic boundaries, none of the ongoing projects are anticipated to significantly affect the geometric configuration of the PTTL pilot as proposed. If PTTL is maintained beyond the pilot phase, further analysis may be needed on how to best integrate PTTL with the other projects planned for the corridor, specifically including Ramp Metering Phase II and the Interchange Study.

6. PTTL IMPLEMENTATION

This Feasibility Study assesses the need for, opportunities, benefits, and costs associated with PTTL on US 101 between Novato and San Rafael. It represents just the first step in a lengthy process to actual operation of PTTL lanes in this corridor. Subsequent efforts necessary prior to PTTL implementation include: the development of a Concept of Operations; environmental analysis; design development; continued stakeholder engagement, particularly with Caltrans and CHP; and finally, construction. Most critically, the legal framework for PTTL is uncertain. Efforts are currently ongoing at the state level for new legislation that would govern the advancement of PTTL projects and their operation. Additionally, Caltrans is currently developing design guidance and recommended policy revisions for PTTL operations that will define project parameters. These legislative and guidance processes will ultimately shape the design, delivery, and operations of the PTTL pilot.

6.1. Phasing Considerations

The *Existing Conditions Report* (September 2020) and the *Corridor Evaluation Report* (May 2021) concluded that the traffic conditions that allow for PTTL operations would most likely be met on weekdays between 6:00 a.m. to 11:00 a.m. in the southbound direction. The area of congestion extends across the vast majority of the study corridor between Novato and San Rafael. Since the project would only be implemented along one direction of US 101, the travel time benefits would be optimized by having the project in operation along the entire proposed limits. Because there are no significant and unique geometric barriers in any particular area of the corridor, it is recommended that PTTL be implemented in a single deployment as opposed to phased segments. Implementing the pilot using a single-deployment approach would also allow for a more thorough evaluation and assessment of the pilot performance.

6.2. Legislative Framework

It is currently against the law for any vehicle to drive on shoulders in California. The lone exception allows for buses on shoulders within Monterey and Santa Cruz Counties (CSHC Sec. 148.1 and CVC Sec. 21650). Recent efforts to expand Bus on Shoulders (BOS) have been unsuccessful. Assembly Bill 1746 (2016) would have expanded BOS to additional transit agencies; however, opposition based on safety concerns arose and it failed in the State Senate.

Assembly Bill 476 is currently at the California Legislature and is an act to add Section 148.2 to the Streets and Highways Code and amend Section 21650 of the Vehicle Code. The bill states:

“This bill would authorize the Department of Transportation to establish a pilot program to authorize a transit operator or operators to operate transit buses on the shoulders of state highways, under a project selected under the program. The bill would authorize an operator or operators, in partnership with a regional transportation agency that meets specified requirements, to submit an application to the department to establish and operate a project under the program. The bill would authorize the department to select no more than 8 total projects under the program using guidelines developed with input from the Department of the California Highway Patrol and the public. The bill would require the department, the Department of the California Highway Patrol, and the operator or operators and regional transportation agency that submitted the application to jointly determine the state highways, or segment of state highways, that will be used in a project. The bill would require the applicable regional transportation agency to be responsible for all costs attributable to the project. Two years after commencing a project, the bill would require an operator or operators, in conjunction with the applicable regional transportation agency, to submit a report to the Legislature that includes certain information about the project.”³

³ California Legislature, AB-476 Department of Transportation: state highways: transit bus pilot program (March 2021). https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB476

Passage of AB476 would provide a clear process by which the US 101 PTTL pilot project could be advanced. As noted in the current language of the bill, the onus would fall on both TAM as the regional transportation agency and the transit operators (Marin Transit and Golden Gate Transit) to lead an application for consideration of the US 101 PTTL as one of the pilot projects. It is recommended that TAM and the transit operators closely track the progress of AB476 and consider how to best position the US 101 PTTL for inclusion as one of the initial pilot projects. Should AB476 not advance, further coordination and consensus-building amongst Caltrans, CHP, the transit operators, and TAM would be necessary to determine the legal framework under which PTTL could be implemented and enforced on US 101.

6.3. Project Elements for Future Consideration

Future project efforts will need to address key elements that have been discussed, but not fully resolved, within the feasibility study.

6.3.1. Technology

Further discussions will be required with Caltrans if the Ramp Metering Phase II Project advances within the time horizon of the PTTL pilot as there is currently no guidance in Caltrans' Ramp Metering Design Manual for the integration of PTTL operations. Technology—including ramp metering and onboard technology to transmit signal priority or advanced driver assistance—is not being recommended for the pilot project at this time. However, if technology is ultimately implemented, it can be configured to support enhanced effectiveness of the PTTL. Ramp metering equipment and signals are already installed at Lincoln Avenue, SR-37/South Novato Boulevard, Rowland Boulevard, De Long Avenue, and Atherton Avenue/San Marin Drive. Once ramp metering is operational, technology interventions could be incorporated to further reduce conflicts points by actuating longer gaps or triggering the signal to hold traffic until the bus passes the conflict point.

6.3.2. Enforcement, Signing, and Marking

The Code mentioned in Chapter 6.2 does not currently have provisions for regulating the type of public transit buses that can use the shoulder, nor provisions for restricting private buses from utilizing bus lanes, nor limits on the use of the lanes to specific times of day. The signing and markings used for enforcement as included in the *Pilot Operations Plan* (February 2021) are illustrative in nature and will be refined in future project phases. Modification of the Code through state legislation or guidance through agreement between Caltrans and CHP is beneficial to further define use of the PTTL on US 101 to adequately support effective CHP enforcement.

As mentioned in Chapter 3.5, new pavement markings and signage will need to be compliant with the CA MUTCD and the CTCDC. This Feasibility Study identifies the current vehicle code restrictions and recognizes that further state legislation or agreements between Caltrans and CHP would determine enforcement and appropriate signing and striping.

Public education, signage, and increased driver awareness is recommended to accompany implementation of the project to enhance safety and effectiveness.

6.3.3. Drainage Inlets

As mentioned in Chapter 3.5, existing pavement around drainage inlets may need to be modified to eliminate bumps within the PTTL. No drainage system modification is anticipated for the pilot implementation. Future project phases will evaluate the loading capacity of each drainage inlet, impacts to hydrologic and hydraulic design assumptions for adequate drainage, and any necessary mitigations required to avoid drainage impacts and PTTL safety hazards.

6.3.4. Pavement Structural Analysis

The assessment of pavement conditions was based on a combination of available as-builts and field observations. Further analysis, likely including a detailed pavement assessment, will be necessary to confirm assumptions as to the shoulder improvements necessary to support PTTL pilot operations.

6.3.5. Safety and Operational Analysis

California Streets and Highway Code Section 149 requirements, to the extent applicable by state statute, concerning impacts on safety, congestion, and highway capacity will need to be addressed during the Caltrans approval process in subsequent project phases.

6.3.6. Concept of Operations (ConOps)

As a future project step, a ConOps will be prepared to describe the characteristics of the PTTL system in greater detail than contained in this Feasibility Study. The ConOps will identify the systems, technologies, and infrastructure changes needed for implementation. This document contains both technical and non-technical descriptions of the following project elements: the project stakeholders, along with their respective roles and responsibilities; existing conditions and systems; the operational needs and project concept; modifications and changes to existing systems and new systems; modifications and changes to the existing operations and support environment; operational scenarios; and PTTL communications protocol and training material. The ConOps will also document an evaluation methodology and pilot monitoring program to allow for the project to be objectively assessed during and after the pilot's implementation period. The ConOps will be followed by the development of the system requirements, PS&E, and procurement documents.

Caltrans is in the process of developing guidance for PTTL operations, including defining operational, geometric, and enforcement parameters for consistent PTTL implementation across the state. Indications from Caltrans, however, are that the operational guidance will reflect several of the precedents established nationally for PTTL operations. This may also provide further guidance regarding the relationship of technology to PTTL operations.

6.4. Implementation Process

The successful implementation of PTTL is dependent on the partnership between TAM, Caltrans, CHP, GGTBD, and other partner agencies, transit operator unions, stakeholders, and corridor jurisdictions. Continued coordination amongst these agencies is critical for project advancement. Following this Feasibility Study, the implementation of PTTL will involve the completion of multiple project elements in accordance with the Caltrans approval process. Key elements include:

- Determining the Caltrans and environmental clearance process
- Advancing the design to ensure alignment with future Caltrans PTTL design guidance
- Preparing an analysis to meet the requirements of Streets and Highway Code Section 149

Senate Bill No. 288 was approved in September 2020 and would likely allow the project to be exempt from the California Environmental Quality Act (CEQA). As stated in the bill:

“This bill would further exempt from the requirements of CEQA certain projects, including projects for the institution or increase of new bus rapid transit, bus, or light rail services on public rail or highway rights-of-way, as specified, whether or not the right-of-way is in use for public mass transit, as specified, and projects for the designation and conversion of general purpose lanes, high-occupancy toll lanes, high-occupancy vehicle lanes, or highway shoulders, as specified.”

SB 288 sunsets on January 1, 2030. As SB 288 provides significant benefits to streamline the environmental review process and timeline, it would be beneficial for the pilot project to advance prior to the sunset of its statutes.

Both the capital and operations and maintenance costs will be refined throughout the implementation process as the project's details are confirmed. The costs for enforcement, maintenance, and service patrol will be determined in coordination with the transit service providers, CHP, and Caltrans. Potential transit operation cost savings will also continue to be evaluated as the transit operational parameters and schedule modifications are solidified. A funding source for subsequent PTTL implementation phases has not yet been identified, although a variety of grant programs present logical opportunities. As mentioned in Chapter 4.1, the capital cost of the required infrastructure is estimated to be between \$6.5 million and \$7 million. Funding for ongoing operations and maintenance costs including training, enforcement, and maintenance would also be needed.

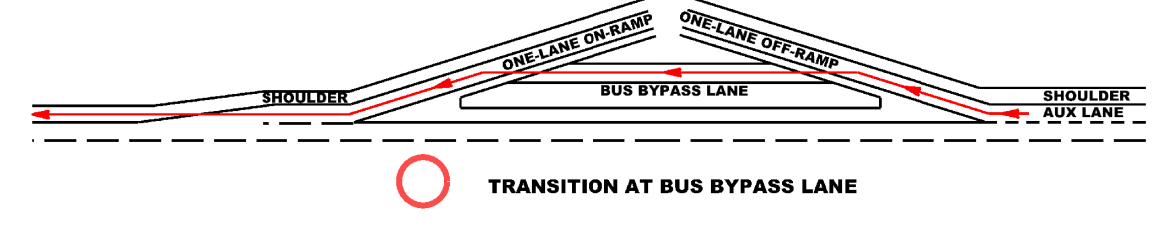
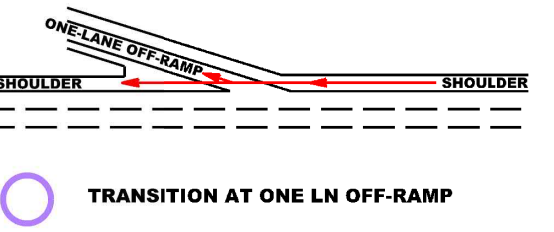
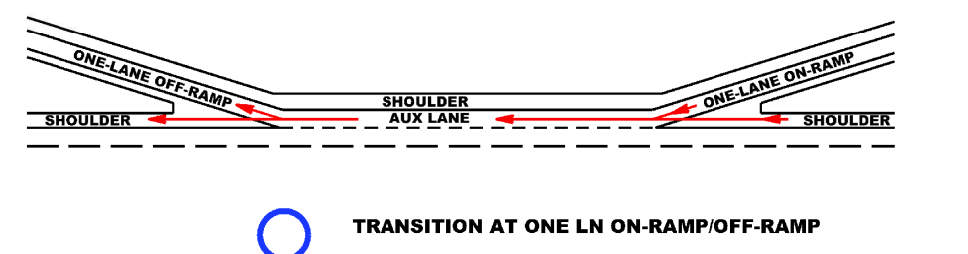
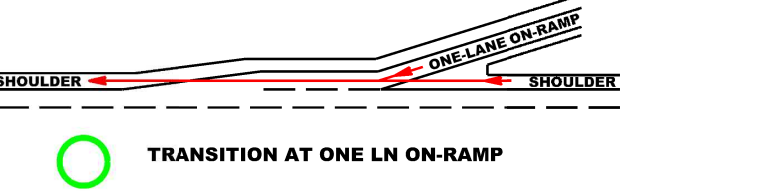
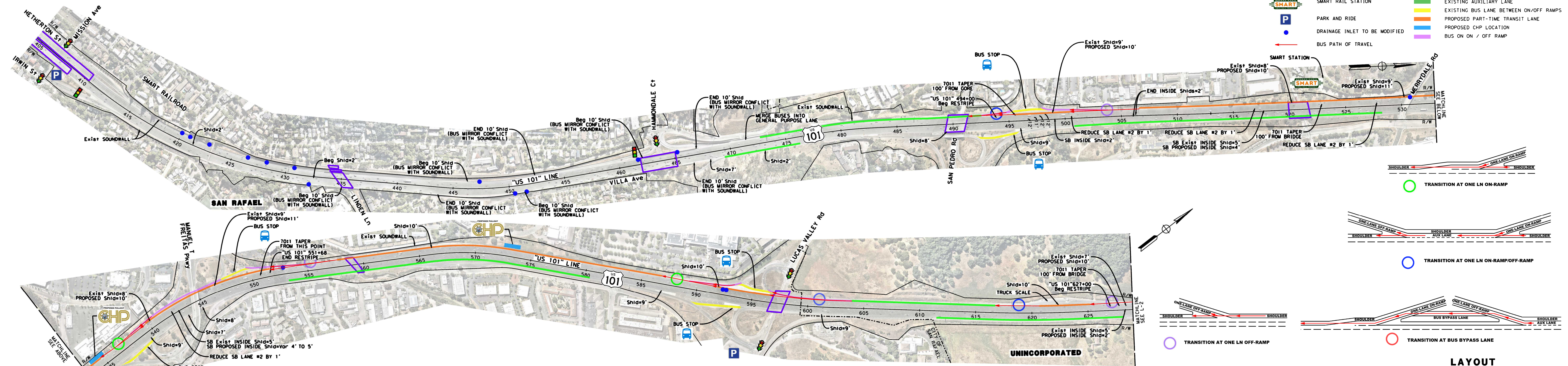
The timeframe to implementation and start of service is challenging to estimate due to a couple of significant unknowns, particularly the legal framework for enforcement and its implications on Caltrans design and operations guidance. In addition, the timing and source of project funding is uncertain. However, should both the legal framework and funding uncertainty be resolved in a desirable timeframe, the pilot project is envisioned to be operational within an approximately three- to four-year period, accounting for design, environmental, approvals, and construction phases.

Appendix A: Part-Time Transit Lane Preliminary Concept Layouts

US 101 PROPOSED PART-TIME TRANSIT LANE PART-TIME TRANSIT LANE SUITABILITY

LEGEND:

- SIGNALIZED INTERSECTION
- RAMP METER LOCATION
- SMART RAIL STATION
- PARK AND RIDE
- DRAINAGE INLET TO BE MODIFIED
- BUS PATH OF TRAVEL
- BUS STOPS
- RIGHT OF WAY
- CITY BOUNDARY
- EXISTING BRIDGE
- EXISTING AUXILIARY LANE
- EXISTING BUS LANE BETWEEN ON/OFF RAMP
- PROPOSED PART-TIME TRANSIT LANE
- PROPOSED CHP LOCATION
- BUS ON ON / OFF RAMP



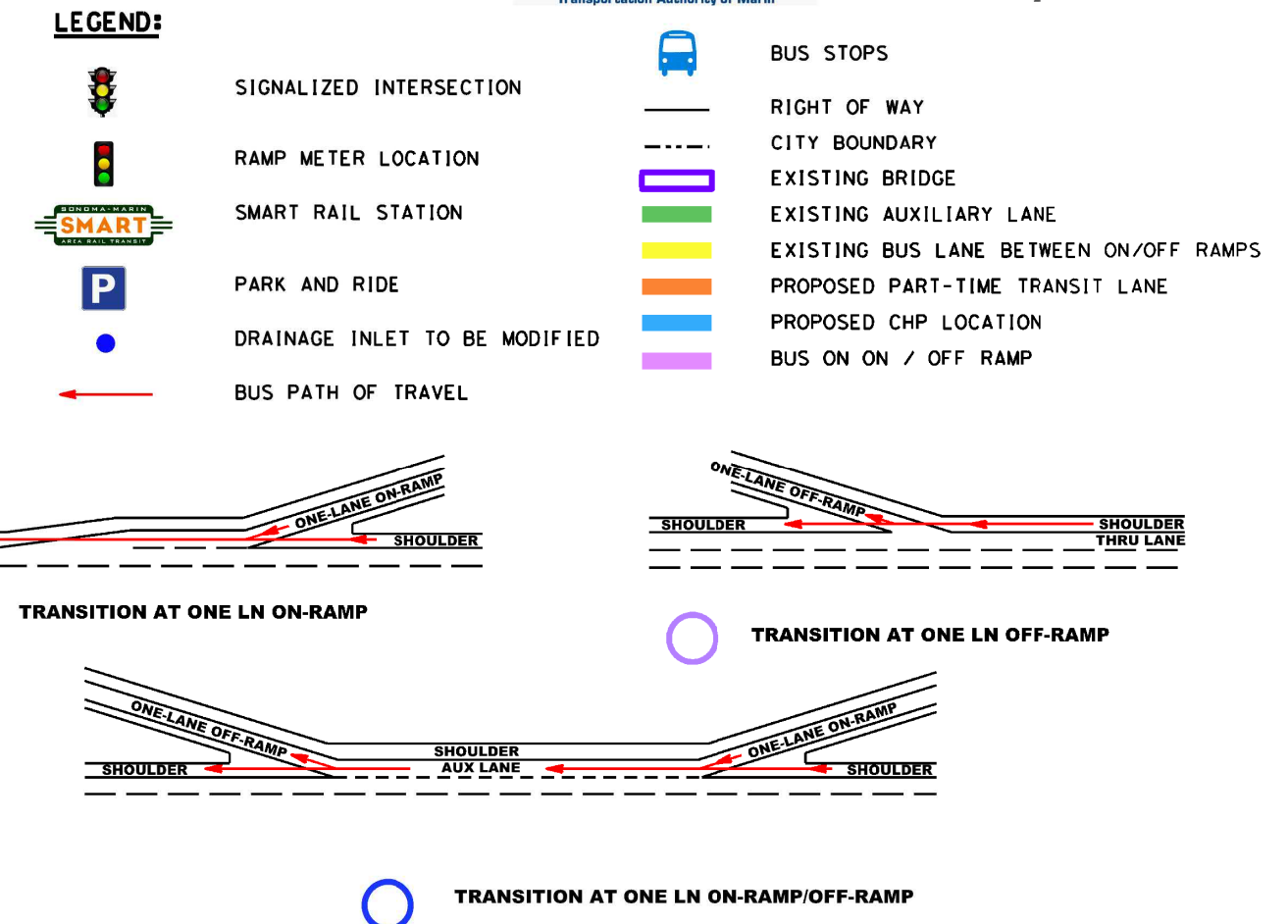
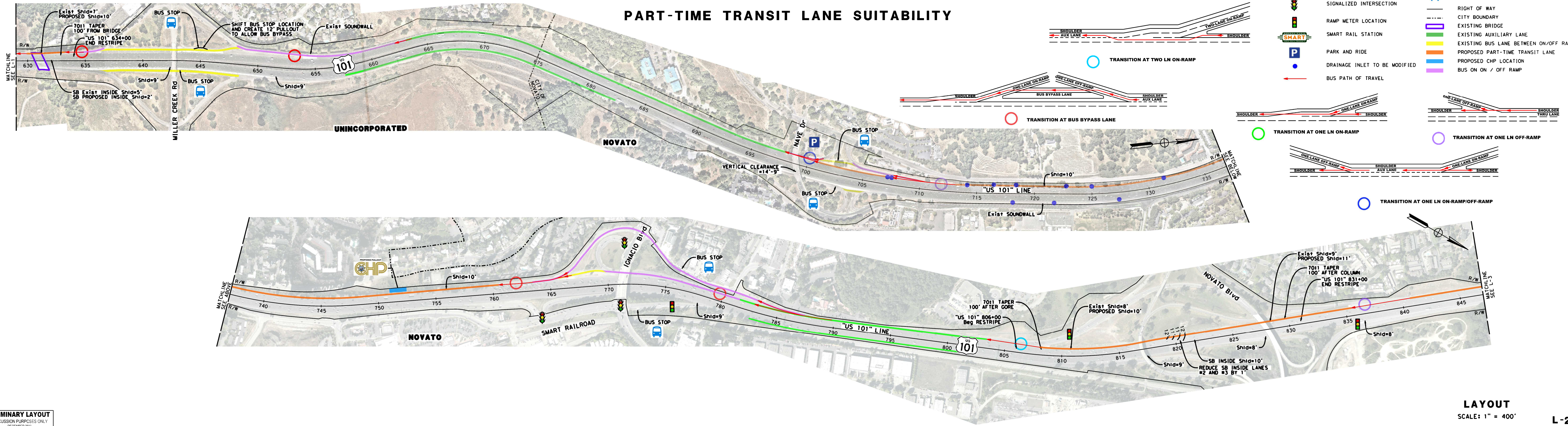
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PRELIMINARY LAYOUT
FOR DISCUSSION PURPOSES ONLY
DECEMBER 2020

US 101 PROPOSED PART-TIME TRANSIT LANE

PART-TIME TRANSIT LANE SUITABILITY



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PRELIMINARY LAYOUT
 FOR DISCUSSION PURPOSES ONLY
 DECEMBER 2020

LAYOUT
 SCALE: 1" = 400'
L-2

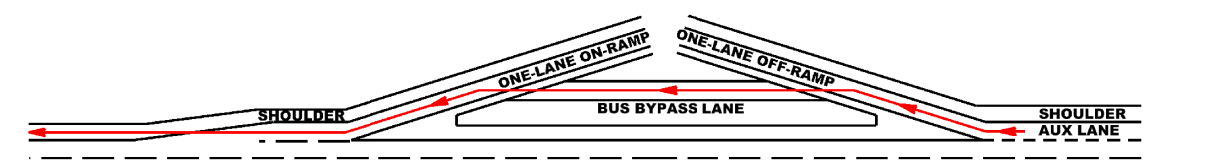
US 101 PROPOSED PART-TIME TRANSIT LANE

PART-TIME TRANSIT LANE SUITABILITY



LEGEND:

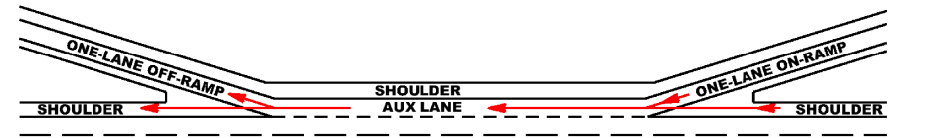
	SIGNALIZED INTERSECTION		BUS STOPS
	RAMP METER LOCATION		RIGHT OF WAY
	SMART RAIL STATION		CITY BOUNDARY
	PARK AND RIDE		EXISTING BRIDGE
	DRAINAGE INLET TO BE MODIFIED		EXISTING AUXILIARY LANE
	BUS PATH OF TRAVEL		EXISTING BUS LANE BETWEEN ON/OFF RAMP
			PROPOSED PART-TIME TRANSIT LANE
			PROPOSED CHP LOCATION
			BUS ON / OFF RAMP



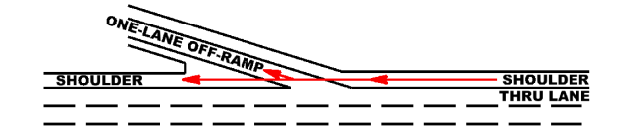
TRANSITION AT BUS BYPASS LANE



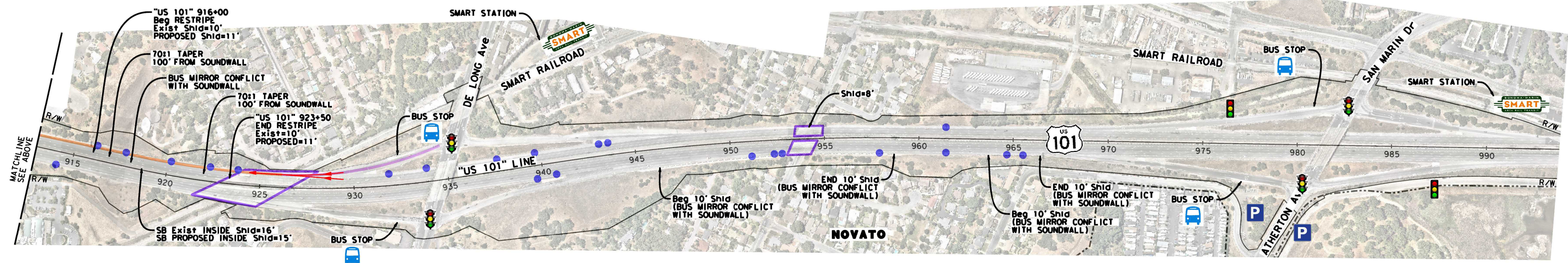
TRANSITION AT ONE LN ON-RAMP



TRANSITION AT ONE LN ON-RAMP/OFF-RAMP



TRANSITION AT ONE LN OFF-RAMP



PRELIMINARY LAYOUT
FOR DISCUSSION PURPOSES ONLY
DECEMBER 2020

LAYOUT
SCALE: 1" = 400'

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TIME PLOTTED => 12:30 PM
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Appendix B: Opinion of Probable Cost

US 101 Part-Time Transit Lane Feasibility Study Pilot Operations Plan Opinion of Probable Cost by Kimley-Horn 1/29/21		Engineer's Opinion of Probable Cost			
SECTION NO.	ITEM	EST QTY	UNIT	UNIT PRICE, \$	ITEM TOTAL, \$
1	Earthwork				
	a. Roadway Excavation	1	LS	\$130,000	\$130,000
	b. Imported Borrow	1	LS	\$20,000	\$20,000
	c. Clearing and Grubbing	1	LS	\$15,000	\$15,000
	d. Contaminated Soil Excavation (ADL)	1	LS	\$15,000	\$15,000
2	Pavement Structural Section				
	a. Hot Mix Asphalt (Type A) (17.4")	5,000	TON	\$200	\$1,000,000
	b. Class 2 Aggregate Base (12")	2,000	CY	\$60	\$120,000
	c. Shoulder Pavement Crack Seal Rehabilitation	1	LS	\$20,000	\$20,000
3	Drainage				
	a. Modify Storm Drain Inlet	17	EA	\$6,000	\$102,000
4	Specialty Items				
	a. CHP Cut-Out	4	EA	\$100,000	\$400,000
	b. Bus Stop Relocation and 12' Pullout at Miller Creek Rd Interchange	1	LS	\$130,000	\$130,000
5	Traffic Items				
	a. Static Signing System	70	EA	\$750	\$52,500
	b. Traffic Delineation (Pavement Markings)	1,400	SF	\$7.50	\$10,500
	c. Traffic Delineation (Restriping)	1	LS	\$100,000	\$100,000
	d. Traffic Control Systems and Stage Construction	1	LS	\$250,000	\$250,000
6	Roadside Management and Safety				
	a. Erosion Control	1	LS	\$100,000	\$100,000
	b. Slope Protection	1	LS	\$25,000	\$25,000
	c. Side Slopes/Embankment Slopes	1	LS	\$20,000	\$20,000
7	Minor Items				
	a. Subtotal sections 1-6 (10%)	1	LS	\$251,000	\$251,000
8	Roadway Mobilization				
	a. Subtotal Sections 1-7 (15%)	1	LS	\$410,000	\$410,000
9	Roadway Additions				
	a. Supplemental Work (subtotal sections 1-7) (10%)	1	LS	\$276,000	\$276,000
	b. Contingencies (subtotal sections 1-7) (35%)	1	LS	\$966,000	\$966,000
10	Agency Furnished Materials				
	a. Transportation Management Plan	1	LS	\$25,000	\$25,000
	b. Resident Engineer Office Space	1	LS	\$25,000	\$25,000

Construction Total \$4,463,000

Caltrans Project Development Process

Preliminary Engineering/Environmental Clearance	\$800,000
PS&E Support	\$1,200,000
Construction Admin/CM	\$500,000
TOTAL PROJECT COST	\$6,963,000

Caltrans DEER Process

Design Engineering Evaluation Report	\$500,000
PS&E Support	\$1,000,000
Construction Admin/CM	\$500,000
TOTAL PROJECT COST	\$6,463,000

Assumptions:

- * Construction cost is shown as the current value and it has not been escalated to the year of expenditure.
- * Preliminary opinion of probable cost assumes a 30% contingency factor.
- * Section 7 covers any ADA items or additional admin.
- * Preliminary Engineering/Environmental Clearance includes PSR-PR, Environmental Technical Studies, CE/CE, ConOps, Decision Document, and Preliminary Design.
- * Design Engineering Evaluation Report (DEER) includes Right of Way impacts, Traffic and Maintenance and Operations Impacts, Structure Information, and Decision Document, and CE/CE.
- * PS&E Support includes 35%, 65%, 95%, Final, Bid Support, and DSDD.
- * The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known.

ATTACHMENT C

TRANSPORTATION AUTHORITY OF MARIN

FEDERAL DEBARMENT CERTIFICATION FORM

(Rev. 01/25)

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion Lower Tier Covered Transactions

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 29 CFR Part 98, Section 98.510, Participant's responsibilities. The regulations were published as Part VII of the May 26, 1988 Federal Register (pages 19160-19211).

(BEFORE COMPLETING CERTIFICATION, READ THE INSTRUCTIONS ON THE NEXT PAGE WHICH ARE AN INTEGRAL PART OF THE CERTIFICATION)

1. The prospective recipient of Federal funds certifies, by submission of this RFQ/RFP Response, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
2. Where the prospective recipient of Federal funds is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this RFQ/RFP Response.

Name and Title of Authorized Representative	
Signature	Date

FEDERAL DEBARMENT CERTIFICATION FORM (CONTINUED)

Instructions for Certification

1. By signing and submitting this RFQ/RFP Response, the prospective recipient of Federal funds is providing the certification as set out below.
2. The certification in this class is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective recipient of Federal funds knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the Department of Labor (DOL) may pursue available remedies, including suspension and/or debarment.
3. The prospective recipient of Federal funds shall provide immediate written notice to the person to which this RFQ/RFP Response is submitted if at any time the prospective recipient of Federal funds learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "RFQ/RFP Response," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this RFQ/RFP Response is submitted for assistance in obtaining a copy of those regulations.
5. The prospective recipient of Federal funds agrees by submitting this RFQ/RFP Response that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier* covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the DOL. (*Note: Lower Tier refers to the agency or contractor receiving Federal funds, as well as any subcontractors that the agency or contractor enters into contract with using those funds).
6. The prospective recipient of Federal funds further agrees by submitting this RFQ/RFP Response that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may but is not required to check the List of Parties Excluded from Procurement or Non-Procurement Programs.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the DOL may pursue available remedies, including suspension and/or debarment.

ATTACHMENT D - CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions. Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Signature

Title

Organization
