Memorandum

To: CHAIR AND COMMISSIONERS **CTC Meeting**: March 19-20, 2026

From: TANISHA TAYLOR, Executive Director

Reference Number: 2.2c.(3), Action

Prepared By: Cherry Zamora
Associate Deputy Director

Published Date: March 6, 2026

Subject: Approval of Project for Future Consideration of Funding – Interstate 680 Northbound Express Lane Completion Project, Resolution E-26-16

Recommendation:

Staff recommends the California Transportation Commission (Commission), as a Responsible Agency under the California Environmental Quality Act (CEQA), approve the attached Resolution E-25-16 (Attachment A); accept the Final Environmental Impact Report for the Interstate 680 Northbound Express Lane Completion Project (Project) in Contra Costa County; approve the Project for future consideration of funding; make CEQA Findings (Attachment C); and adopt a Statement of Overriding Considerations (Attachment D).

Issue:

The California Department of Transportation (Caltrans) is the CEQA Lead Agency for the Project. The Project is located on Interstate 680 from post mile 10.7 to post mile 23.1 in Contra Costa County. The Project includes construction of a northbound express lane from Livorna Road to south of the State Route (SR) 24 Interchange (adding capacity to northbound I-680), conversion of the existing northbound High-Occupancy Vehicle (HOV) lane to an express lane from SR 242 to north of Arthur Road, and construction of braided ramps for the Lawrence Way on-ramp.

For all projects that are seeking funding through a program under the purview of the Commission, full compliance with CEQA is required. The Commission will not allocate funds to projects for design, right-of-way, or construction until the environmental document is complete, and the Commission has approved the environmentally cleared project for future consideration of funding.

Background:

On December 16, 2025, Caltrans certified the Final Environmental Impact Report for the Project. Caltrans found that the Project would have significant and unavoidable impacts on transportation, specifically, Vehicle Miles Traveled (VMT). Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the transportation VMT mitigation measures identified in the Final Environmental Impact Report. Under Public Resources Code Section 21002.1 (c), "If economic, social, or other conditions make it infeasible to mitigate one or more significant effects on the environment of a project, the project may nonetheless be carried out or approved at the discretion of a public agency if the project is otherwise permissible under applicable laws and regulations."

Resources that are utilizing mitigation to reduce impacts to less than significant levels include biological and aquatic resources, specifically, native plant communities and wetlands or other jurisdictional waters. Mitigation measures include avoiding native oak woodlands to the maximum extent feasible, replacement or compensatory mitigation for impacted oak trees at a ratio to be determined in consultation with California Department of Fish and Wildlife (based on and proportional to the size of trees removed), preparation and implementation of a Tree Protection Plan during construction, long-term monitoring of replanted trees, avoiding wetlands/waters to the greatest extent practicable, use of permanent best management practices, mitigation for any permanent impacts on aquatic resources at a minimum 1:1 ratio (to be determined in consultation with the permitting agencies during final design), and use of mitigation through onsite restoration, in-lieu fee payment, or purchase of mitigation credits at a mitigation bank approved by permitting agencies.

The Commission, in its independent judgment as a CEQA responsible agency, has reviewed and considered the Final Environmental Impact Report prepared by Caltrans. The Commission's Findings and Statement of Overriding Considerations, included in Attachment C and Attachment D, respectively, have been prepared pursuant to CEQA.

Attachments:

- Attachment A: Resolution
- Attachment B: Notice of Determination
- Attachment C: California Transportation Commission - Findings
- Attachment D: California Transportation Commission - Statement of Overriding Considerations
- Attachment E: Lead Agency Request for Approval of Project for Future Consideration of Funding Resolution E-26-16
    - Attachment 1: Map
    - Attachment 2: California Department of Transportation -- Findings
    - Attachment 3: California Department of Transportation -- Statement of Overriding Considerations

CALIFORNIA TRANSPORTATION COMMISSION

Resolution for Future Consideration of Funding
04-CC-680, PM R10.7/23.1
Resolution E-26-16

1.1 **WHEREAS,** the California Department of Transportation (Department) has completed a Final Environmental Impact Report pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines for the following project:

- Interstate 680 Northbound Express Lane Completion Project: I-680 in Contra Costa County. Modify NB I-680 from Livorna Road to South of the Benicia-Martinez Bridge Toll Plaza (PM R10.7 to 23.1) in Contra Costa County, California. Specifically, reduce the NB express lane gap by constructing a NB express lane from Livorna Road to south of the State Route 24 Interchange (adding capacity to NB I-680), as well as converting the existing NB High-Occupancy Vehicle lane to an express lane from State Route 242 to north of Arthur road, and construction of braided ramps for the Lawrence Way on-ramp. (PPNO 4532A)

1.2 **WHEREAS**, the Department has certified that a Final Environmental Impact Report has been completed pursuant to CEQA and the State CEQA Guidelines for its implementation; and

1.3 **WHEREAS**, the California Transportation Commission (Commission), as a responsible agency, has considered the information contained in the Final Environmental Impact Report; and

1.4 **WHEREAS,** the project will have a significant effect on the environment; and

1.5 **WHEREAS**, the Commission has made findings as required by California Code of Regulations, section 15096, subdivision (h); and

1.6 **WHEREAS**, the Commission has adopted a Statement of Overriding Considerations (Attachment D) pursuant to California Code of Regulations, title 14, section 15093 and has approved the project under Alternative 2 because it found the benefits of the project render the significant impacts acceptable

2.1 **NOW, THEREFORE, BE IT RESOLVED** that the Commission does hereby accept the Final Environmental Impact Report and approves the above-referenced project for future consideration of funding.

Reference No.: 2.2c.(3)
March 19-20, 2026
Attachment B

NOTICE OF DETERMINATION

To: Office of Land Use and Climate Innovation
1400 Tenth Street, Room 121
Sacramento, CA 95814

From: California Transportation Commission
Attn: Cherry Zamora
1120 N Street, MS 52
Sacramento, CA 95814
(916) 654-4245

Subject: Filing of Notice of Determination in compliance with Section 21108 of the Public Resources Code.

Project Title: Interstate 680 Northbound Express Lane Completion Project

2020060297	Stephanie K. Hu	(925) 256-4740
State Clearinghouse Number	**Lead Agency Contact Person**	**Area Code/Telephone**

Project Location (include county): Interstate 680 (I-680) from Post Mile (PM) R10.7 to 23.1 in Contra Costa County.

Project Description: Modify Northbound (NB) Interstate 680 (I-680) from Livorna Road to South of the Benicia-Martinez Bridge Toll Plaza (Post Mile R10.7 to 23.1) in Contra Costa County, California. Specifically, reduce the NB express lane gap by constructing a NB express lane from Livorna Road to south of the State Route 24 Interchange (adding capacity to NB I-680), as well as converting the existing NB High-Occupancy Vehicle lane to an express lane from State Route 242 to north of Arthur road, and construction of braided ramps for the Lawrence Way on-ramp.

This is to advise that the California Transportation Commission has approved the above-described
(__Lead Agency/ **X** Responsible Agency)
project on March 19-20, 2026, and has made the following determinations regarding the above-described project:

1. The project (_X_will/ _ will not) have a significant effect on the environment.
2. __X_An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
   __A Negative Declaration was prepared for this project pursuant to the provisions of CEQA.
3. Mitigation measures (_X were/ _ were not) made a condition of the approval of the project.
4. Mitigation reporting or monitoring plan (_X was / _ was not) adopted for this project.
5. A Statement of Overriding Considerations (X_ was / _ was not) adopted for this project.
6. Findings (_X were/ _ were not) made pursuant to the provisions of CEQA.

The above identified document with comments and responses and record of project approval is available to the General Public at: Caltrans District 4, 111 Grand Ave, Oakland, CA 94612.

TANISHA TAYLOR		Executive Director California Transportation Commission
Signature (Public Agency)	*Date*	*Title*

Date received for filing at LCI:

Environmental Document: *Interstate 680 Northbound Express Lane Completion Project – Final Environmental Impact Report/Environmental Assessment with Finding of No Significant Impact*

Project Name: Interstate 680 Northbound Express Lane Completion Project
DIST-CO-RTE-PM: 04-CC-680- PM R10.7/23.1
EA: 04-0Q3100
EFIS ID: 0418000070
SCH#: 2020060297

CALIFORNIA TRANSPORTATION COMMISSION
FINDINGS OF FACT

FOR

THE INTERSTATE 680 NORTHBOUND EXPRESS LANE COMPLETION PROJECT, WHICH PROPOSES TO MODIFY NORTHBOUND INTERSTATE 680 FROM LIVORNA ROAD TO SOUTH OF THE BENICIA-MARTINEZ BRIDGE TOLL PLAZA (POST MILES R10.7 TO 23.1) IN CONTRA COSTA COUNTY, CALIFORNIA

The following information is presented to comply with California Environmental Quality Act (CEQA) Guidelines, California Code of Regulations, title 14, sections 15091 and 15096, and also title 21, section 1501 et seq. Reference is made to the Final Environmental Impact Report (EIR)[1] for the Interstate 680 Northbound Express Lane Completion Project (Project), which is the basic source for the information.

The following effects have been identified in the Final EIR as resulting from the project under Alternative 2 (Reduce the Gap Plus Braided Ramps). Effects found not to be significant have not been included.

Biological Resources

The following impacts on biological resources would result from implementation of the Project:

[1] A joint Environmental Impact Report (EIR)/Environmental Assessment (EA) was prepared in compliance with both the California Environmental Quality Act and National Environmental Policy Act. This Findings of Fact refers to the EIR, as the California Transportation Commission's role as a responsible agency is limited to considering the EIR.

Adverse Environmental Effects Biological (BIO)-1:

The Project would impact approximately 1.73 acres of brome grassland, approximately 0.16 acre of coast live oak woodland, and approximately 268 trees, of which 107 are native species. Temporary and permanent impacts on oak woodlands and oak trees are considered potentially significant given the biological importance of oak woodlands. Project redesign to avoid impacting oak woodlands and oak trees proved to be infeasible at this time.

Findings:

Changes or alterations have been required in, or incorporated into, the Project, which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Statement of Facts:

During the final design phase, impacts on native oak woodlands would be avoided to the maximum extent feasible. General avoidance and minimization measures would reduce the potential for impacting native communities. In addition, the California Department of Transportation (Caltrans) and Contra Costa Transportation Authority (CCTA; Project Sponsor) would implement Mitigation Measure Biological (BIO)-Mitigation Measure (MM)-1, requiring mitigation of oak trees that are impacted, in consultation with the regulatory agencies. As a precautionary measure, monitoring by a qualified biologist during construction would also be implemented. Mitigation Measure BIO-MM-1 would fully offset the loss of oak woodlands and oak trees.

- BIO-MM-1: Oak Woodlands. In accordance with Senate Concurrent Resolution No. 17: Oak Woodlands, native oak woodlands will be avoided to the maximum extent feasible. Any oak trees that are impacted would be mitigated through replacement or compensatory mitigation at a ratio to be determined in consultation with California Department of Fish and Wildlife (CDFW) and based on the size of the tree removed, with large-diameter trees requiring greater replacement numbers than small trees. A Tree Protection Plan will be prepared and implemented to minimize damage to native trees during construction. Precise tree planting locations will be determined during the final design phase and will occur within the Caltrans right-of-way. Replanted areas will be monitored for success for up to 3 to 10 years and subject to success criteria. The performance criterion for replacement tree plantings is 70 percent survival of all plantings at the end of the monitoring period.

Adverse Environmental Effects BIO-2:

The Project would impact up to approximately 0.26 acre of wetlands or other jurisdictional waters, which would be confirmed during final design. Temporary and permanent impacts on wetlands and other jurisdictional waters are considered potentially significant given the biological importance of these habitats. Project redesign to avoid impacting aquatic resources proved to be infeasible at this time.

Findings:

Changes or alterations have been required in, or incorporated into, the Project, which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Statement of Facts:

During the final design phase, impacts on wetlands and other waters would be avoided to the maximum extent practicable. These aquatic resources may fall within United States Army Corps of Engineering (USACE), Regional Water Quality Control Board (RWQCB), and/or CDFW jurisdiction. General avoidance and minimization measures would reduce the potential for impacting wetlands and other waters. If during final design, the Project is unable to avoid jurisdictional resources, a Section 404 (Nationwide) Permit from USACE, Section 401 Water Quality Certification from RWQCB, and/or Section 1602 Streambed Alteration Agreement from CDFW will be sought during the final design phase. Mitigation Measure BIO-MM-2 would be implemented requiring compensatory mitigation at a ratio that would be determined in consultation with the permitting agencies during final design. Mitigation Measure BIO-MM-2 would fully offset the loss of wetlands and other waters.

- BIO-MM-2: Jurisdictional Waters. Where impact areas overlap or would be adjacent to potential wetlands/waters, these wetlands/waters would be avoided to the greatest extent practicable. The location of permanent best management practices will be refined during final design and wetlands and other waters would be avoided where feasible. Mitigation for any permanent impacts on aquatic resources shall be provided at a minimum of 1:1 ratio, which would be determined in consultation with the permitting agencies during final design. Mitigation can be achieved through onsite restoration, in-lieu fee payment, or purchase of mitigation credits at a mitigation bank approved by USACE or RWQCB. Mitigation as required in regulatory permits issued through USACE and/or the RWQCB may be applied.

TRANSPORTATION

The following impacts on transportation would result from implementation of the Project.

Adverse Environmental Effects Transportation (TRAN)-1:

Any increase in Vehicle Miles Traveled (VMT) is considered a potentially significant impact under CEQA in accordance with Caltrans, *Transportation Analysis under CEQA* (TAC), First Edition (2020). Under Alternative 2, the Project would result in an increase of 82,353 daily VMT compared to the No-Build for the Design Year (2047).

Mitigation measures and alternatives were developed to minimize impacts from VMT. This included the consideration and evaluation of Alternative 5 (Reduce the Gap with General-Purpose Lane Conversion Plus Braided Ramps), which was screened from requiring VMT analysis or mitigation under the TAC because it would not increase capacity. Alternative 5 was not selected as the preferred alternative due to the number of comments received from the public and elected officials opposing the conversion of a general-purpose lane to an express lane as well as the increase in vehicle hours of delay on Interstate (I)-680 in the morning peak period compared to the No-Build Alternative, the projected deterioration of traffic on State Route 24 compared to the No-Build Alternative, and other concerns raised regarding traffic impacts and constructability.

Under Alternative 2, the Project was also found to have a significant cumulative impact, because when combined with other past, current, and probable future projects in the region, the Project would result in a significant increase in VMT.

Findings:

Changes or alterations have been required in, or incorporated into, the Project, which avoid or substantially lessen the significant environmental effect as identified in the Final EIR.

Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR.

Statement of Facts:

Alternative 2 would result in less VMT than the other VMT increasing project alternatives evaluated. Subject to available funding, Caltrans and CCTA (the Project Sponsor) would implement the following mitigation measures:

- TRAN-MM-1: I-680 Express Bus Service. CCTA will work with County Connection and Livermore Amador Valley Transit Authority to implement a new I-680 express bus service and provide funding to rebrand, refurbish, and upgrade six existing buses for interim service (before hydrogen fuel-cell buses are available) and acquire six hydrogen fuel-cell buses (and 1 spare) when they are available for purchase.

- TRAN-MM-2: Shared Mobility Hubs. CCTA will pursue funds and ensure the implementation of the following mobility hubs: Bollinger Canyon Road, Walnut Creek Bay Area Rapid Transit Station, and Martinez Amtrak Station. These hubs will be designed to support I-680 Express Bus Service as well as other fixed-route transit services. The hubs may include mobility hub improvements and Mobility-on-Demand/Mobility-as-a-Service application and could potentially include additional mobility services, such as microtransit and/or increased eBike/eScooter operations.

- TRAN-MM-3: Transportation Demand Management (TDM) Program Augmentation. CCTA will pursue funds and ensure the implementation of a countywide TDM Program for the I-680 Express Lane Completion Project. This program will consist of enhancing existing and creating new TDM incentives within Contra Costa County. The program will not supplant, supersede, or replace current CCTA TDM initiatives that are funded by Transportation Fund for Clean Air or Measure J. CCTA will operate the program through the County's existing TDM program (511 Contra Costa [511CC]).

The I-680 express bus service (TRAN-MM-1) is estimated to result in a VMT reduction of 36,800 VMT. The VMT reduction for shared mobility hubs (TRAN-MM-2) would depend on the extent of non-automobile access improvements, with a reduction of 6,600 VMT estimated for one mile of improvements and an estimate of 15,400 VMT for two miles of improvements. The augmentation of Contra Costa County’s existing TDM program, 511CC (TRAN-MM-3), would then be used to offset the Project's remaining daily VMT, if the necessary funding sources are secured. That is, the TDM program would seek a reduction of either 38,953 or 30,153 daily VMT depending on the extent of non-automobile access improvements. At this time, it is assumed that two miles of non-automobile access improvements around shared mobility hubs would be implemented. An implementation plan for the TDM program would be prepared during final design.

Indefinite ongoing mitigation funding is currently infeasible. CCTA is committed to continuing to work with the express lane operator (Bay Area Infrastructure Financing Authority) to seek the necessary funding to implement the proposed VMT mitigation for a 20-year period. The project team used 20 years to correspond with the typical design horizon year. Subject to available funding, the mitigation measures would offset the Project's daily VMT for 20 years and could result in a mode shift that would extend beyond the 20-year period.

VMT mitigation is estimated to cost approximately $200 million. To date, CCTA has secured approximately $66 million for VMT mitigation. Caltrans has determined that the impact on transportation would be significant and unavoidable under CEQA because mitigation funding has not been fully secured, and indefinite ongoing mitigation funding is not assured.

DOCUMENT AVAILABILITY

Documents or other material which constitute the record of the proceedings upon which the California Transportation Commission's decision is based are available at: https://ccta.ca.gov/projects/innovate-680/express-lane-completion/.

Tanisha Taylor		
Executive Director	Signature	Date

Environmental Document: *Interstate 680 Northbound Express Lane Completion Project – Final Environmental Impact Report/Environmental Assessment with Finding of No Significant Impact*

Project Name: Interstate 680 Northbound Express Lane Completion Project
DIST-CO-RTE-PM: 04-CC-680- PM R10.7/23.1
EA: 04-0Q3100
EFIS ID: 0418000070
SCH#: 2020060297

CALIFORNIA TRANSPORTATION COMMISSION STATEMENT OF OVERRIDING CONSIDERATIONS

FOR

THE INTERSTATE 680 NORTHBOUND EXPRESS LANE COMPLETION PROJECT, WHICH PROPOSES TO MODIFY NORTHBOUND INTERSTATE 680 FROM LIVORNA ROAD TO SOUTH OF THE BENICIA-MARTINEZ BRIDGE TOLL PLAZA (POST MILES R10.7 TO 23.1) IN CONTRA COSTA COUNTY, CALIFORNIA

The following information is presented to comply with California Environmental Quality Act (CEQA) Guidelines, California Code of Regulations, title 14, sections 15091 and 15096, and also title 21, section 1501 et seq. Reference is made to the Final Environmental Impact Report (EIR)[1] for the Interstate 680 Northbound Express Lane Completion Project (Project), which is the basic source for the information.

The California Transportation Commission (Commission), in its independent judgment as a CEQA responsible agency, reviewed and considered the Final EIR prepared by the California Department of Transportation (Caltrans) and finds that the Final EIR contains a complete, objective, and substantiated reporting of the project's potential impacts.

The following impacts have been identified as significant and not fully mitigable:

[1] A joint Environmental Impact Report (EIR)/Environmental Assessment (EA) was prepared in compliance with both the California Environmental Quality Act and National Environmental Policy Act. This Statement of Overriding Considerations refers to the EIR, as the California Transportation Commission's role as a responsible agency is limited to considering the EIR.

Transportation

According to the California Department of Transportation (Caltrans), *Transportation Analysis under CEQA* (TAC) (California Department of Transportation, 2025), a project within a metropolitan planning organization area "that results in an increase in [vehicle miles traveled (VMT)] when comparing the future build alternative to the future no-build alternative (i.e., the VMT is higher under the future build scenario) will generally be considered significant, and mitigation will be required."

Implementing the Interstate 680 (I-680) Northbound Express Lane Completion Project (Project) under Alternative 2 would result in an increase of 82,353 daily VMT compared to the No-Build Alternative for the Design Year (2047). Mitigation has been incorporated to offset the Project's increase in VMT, which includes implementing an express bus service and shared mobility hubs and augmenting Contra County's existing countywide transportation demand management (TDM) program (511 Contra Costa [511 CC]). The Project Sponsor (Contra Costa Transportation Authority [CCTA]) is committed to continuing to work with the express lane operator (Bay Area Infrastructure Financing Authority [BAIFA]) to seek the necessary funding to implement the VMT mitigation measures for a 20-year period. Caltrans has determined that the impact would be potentially significant and unavoidable because mitigation funding has not been fully secured and indefinite mitigation funding is not assured.

Cumulative

When considering the effects of past, present, and future actions and other projects in the Resource Study Area, Alternative 2 would result in a significant cumulatively considerable impact on transportation because mitigation funding has not been fully secured and indefinite mitigation funding is not assured.

Overriding considerations that support approval of this recommended Project are as follows:

Project Overview

The purpose of the Project is to:

- Reduce peak-period congestion and delay on northbound I-680.

- Encourage use of high-occupancy vehicles (HOV) and transit service.
- Offer non-carpool eligible drivers a reliable travel time option.
- Optimize use of the existing HOV lane capacity in the 1-680 corridor to better meet current and future traffic demands.
- Reduce travel time and improve travel time reliability for travelers in the corridor.

The need for the Project to address existing transportation problems within the Project Study Limits are:

- Congestion - Northbound I-680 general-purpose lanes within the Project Study Limits experience substantial congestion - over 30 minutes of delay - during peak hours.
- System Continuity- There is a 7.5-mile gap in the existing northbound I-680 managed lane system between Livorna Road and State Route (SR) 242; system continuity is lacking through this area, diminishing the effectiveness of the managed lane system and increasing travel time for all users.
- Operational Improvements - The weaving movement between Lawrence Way and Treat Boulevard creates a bottleneck on I-680 and a traffic queue as far back as Livorna Road during the afternoon peak traffic period. The situation is compounded by the gap in the managed lane system.

Build Alternatives

Design and build alternatives were developed to meet the Project purpose and need while avoiding or minimizing environmental effects. The Project alternatives carried forward for evaluation are as follows:

- Build Alternative 1C; Close the Gap with Realignment
- Build Alternative 2: Reduce the Gap Plus Braided Ramps
- Build Alternative 3: Close the Gap with Realignment Plus Braided Ramps

- Build Alternative 5: Reduce the Gap with General-Purpose Lane Conversion Plus Braided Ramp

- No-Build Alternative: The No-Build Alternative does not include any improvement on I-680

The Project Development Team (PDT) worked thoroughly to identify VMT-reducing or neutral project alternatives. As described in Section 1.4.6, Alternatives Considered but Eliminated, of the Final EIR, the PDT developed Alternative 4 (Reduce the Gap with HOV Lane Conversion Plus Braided Ramps) and Alternative 5 (Reduce the Gap with General-Purpose Lane Conversion Plus Braided Ramps) to avoid increasing VMT. Alternative 4 performed operationally worse than the No-Build Alternative and was eliminated from evaluation during the development of the Draft EIR. The PDT carried Alternative 5 forward for evaluation in the Draft EIR.

Alternative 2 has been selected as the preferred alternative for the Project.

Project Benefits

The Project would result in the following traffic operational benefits compared to the No-Build for the Design Year (2047) as described in more detail in Section 2.1.8, *Traffic and Transportation/Pedestrian and Bicycle Facilities* of the Final EIR:

- Improve freeway segment speeds on northbound I-680 in the afternoon peak period;

- Substantially improve travel time in general purpose and managed lanes on northbound I-680;

- Improve vehicle hours of delay (VHD) on northbound I-680;

- Improve freeway segment level of service on northbound I-680; and

- Improve VHD in the morning peak period on SR-24.

Among the four Build Alternatives evaluated in the Final EIR (i.e., Alternatives 1 C, 2, 3, and 5), Alternative 2 provides the most overall operational benefits and best meets the Project's purpose and need. Alternative 2 is a feasible and prudent

alternative that would reduce peak-period congestion and delay on northbound I-680; encourage use of HOV and transit service; offer non-carpool eligible drivers a reliable travel time option; optimize use of the existing HOV lane capacity in the I-680 corridor to better meet current and future traffic demands; and reduce travel time and improve travel time reliability for travelers in the corridor. In sum, the Project would provide motorists with a consistent cross-section and managed lanes in the corridor, as well as reduced travel times and reduced weaving conflicts.

Additional reasons why Alternative 2 was selected as the preferred alternative include the following:

- Unlike all other Build Alternatives evaluated, Alternative 2 would substantially improve freeway segment speeds, travel time, VHD, and vehicle and person throughput on I-680 during the afternoon peak period in the Design Year.

- Unlike all other Build Alternatives evaluated, Alternative 2 would not deteriorate and would substantially improve VHD on SR-24 during the afternoon peak period in the Design Year.

- Alternative 2 would improve freeway segment speeds, travel time, and VHD on I-680 during the morning peak period in the Design Year. Alternative 5 would deteriorate all of these metrics.

- Alternative 2 would require less right-of-way (ROW) than Alternatives 1C and 3. Unlike Alternatives 1C and 3, Alternative 2 would not require permanent or temporary ROW from private property.

- Alternative 2 would require fewer design exceptions than Alternatives 1C and 3, indicating increased likelihood for constructability.

- Unlike Alternatives 1C and 3, Alternative 2 would not include 11-month closure of Olympic Boulevard and would have fewer overnight closures than Alternatives 1 C and 3.

- Unlike Alternatives 1 C and 3, Alternative 2 would not require the replacement of existing soundwalls and construction of new soundwalls at the SR-24 Interchange (i.e., Noise Barrier System 5/24-RW2/SW No.1/24-RW4).

- Unlike Alternative 3, Alternative 2 would not result in a deficit of post-construction treatment areas.

- The capital and mitigation cost of Alternative 2 would be less than Alternatives 1C and 3.

- Alternative 2 would result in fewer VMT impacts and require less mitigation than Alternatives 1C and 3.

- Of the 81 comments received on the Draft EIR, 32 opposed the conversion of a general-purpose lane without adding capacity (i.e., Alternative 5).

Alternative 5 was not selected as the preferred alternative due to the number of comments received from the public and elected officials opposing the conversion of a general-purpose lane to an express lane during the Draft EIR public comment period as well as the increase in VHD on I-680 in the morning peak period compared to the No-Build Alternative, the projected deterioration of traffic on SR-24 compared to the No-Build Alternative, and other concerns raised regarding traffic impacts and constructability.

Raw VMT Impacts

The Project's traffic forecast analysis applied a model benchmarking approach to provide VMT analysis for the Project, which is discussed further in Section 2.1.8, *Traffic and Transportation/Pedestrian and Bicycle Facilities*, of the final environmental document.

As shown in Table 1, Alternative 2 would generate approximately 82,353 VMT by the Design Year (2047), which is less VMT than Alternative 1C (99,389 VMT) or Alternative 3 (99,986 VMT). Alternative 5 is not included in Table 1 because it was screened from requiring VMT analysis or mitigation under CEQA in accordance with the TAC (California Department of Transportation, 2020b; 2025).

Table 1. VMT Estimate for Build Alternatives Evaluated

	Opening Year (2027)		Design Year (2047) With Trucks			Design Year (2047) Without Trucks	
Alternative	**Daily VMT**	**Difference from No-Build**	**Daily VMT**	**Difference from No-Build**	**Daily Truck VMT**	**Daily VMT**	**Difference from No-Build**
No-Build	102,853,478	-	115,101,953	-	3,697,410	111,404,543	-
Alternative 1C	102,922,450	+68,973	115,204,075	+102,122	3,700,143	111,503,933	+99,389
Alternative 2*	102,916,580	+63,102	115,186,351	+84,398	3,699,455	111,486,896	+82,353
Alternative 3	102,925,286	+71,808	115,204,937	+102,985	3,700,408	111,504,529	+99,986

Source: (Kittelson & Associates, 2023)
Notes: Vehicle miles traveled (VMT) for five county Metropolitan Statistical Area – Alameda, Contra Costa, Marin, San Francisco, San Mateo counties. Alternative 5 is not included because it was screened from requiring VMT analysis or mitigation in accordance with Caltrans, *Transportation Analysis under CEQA*, First Edition (2020b).
*Alternative 2 is the preferred alternative.

Mitigation

Mitigation Measures Reviewed

Table 2 provides a list of mitigation strategies that the PDT assessed prior to the preparing the Administrative Draft EIR. This list was screened from a list of over 120 considered projects developed through researching the TAC, projects in the Metropolitan Transportation Commission's (MTC) Regional Transportation Plan (*Plan Bay Area* 2050), projects that were not included in the Regional Transportation Plan (RTP), and recent planning studies. Mitigation strategies was evaluated based on several factors, such as feasibility, cost effectiveness, efficacy in VMT reduction, additionality, sponsor willingness, and schedule (i.e., can the mitigation be implemented in a reasonable time frame) (HDR Engineering, Inc., 2022; Kittelson & Associates, 2022a). "Additionality" refers to the assurance that a mitigation investment provides additional resources that otherwise would not have been provided or provides additional resources substantially earlier than otherwise would have been available but for the project.

Caltrans and many stakeholders are interested in organizing mitigation efforts through VMT impact fee programs, mitigation banks, or mitigation exchanges (Center for Law, Energy, and the Environment, 2022; Fehr and Peers, 2020). Contra Costa County does not currently have a working VMT impact fee program, bank, or exchange in place that could be used for the current Project. Therefore, the PDT focused primarily on identifying direct mitigation for the Project (i.e., mitigation when a lead agency commits to developing or funding specific VMT-reducing projects or initiatives).

Mitigation Measures Deemed Too Costly or Infeasible

Table 3 provides additional details regarding mitigation strategies that were evaluated but eliminated from further consideration due to their low effectiveness, high cost, and/or lack of nexus to the Project.

Table 2. Mitigation Strategies Evaluated

Project or Initiative	Locations
INNOVATE 680: 1-680 Express Bus (Livermore Amador Valley Transit Authority/ County Connection)	Martinez Amtrak to Dublin/Pleasanton Bay Area Rapid Transit (BART) and Pleasanton Altamont Corridor Express. Operated with Zero Emission Hydrogen Fuel Cell Electric Bus.
INNOVATE 680: Shared Mobility Hubs	Three locations along the 1-680 Corridor. Evaluated with and without added micro mobility services.
West Contra Costa Transportation Advisory Committee Express Bus Routes 2, 6, 7	West Contra Costa County to downtown Berkeley and Oakland
County Connection 15-Minute BART Feeder Network	Central Contra Costa County
County Connection Downtown Concord Circulator	Concord BART - Willows Shopping Center
Martinez Intermodal Station - Crockett San Francisco Bay Trail Gap Closure Project	Martinez
Parkside Drive Class IV Two-Way Cycle Track	Walnut Creek, Parkside Drive - Provide protected cycle track connection between Walnut Creek BART and Iron Horse Trail
Safe Routes 2 BART	Iron Horse Trail to Walnut Creek BART via California Boulevard
Land Use Mitigation	Prototype affordable housing project in Walnut Creek
Transportation Demand Management Program: Expansion of 511 Contra Costa Programs	Contra Costa County

Table 3. Mitigation Eliminated from Further Consideration

Mitigation Measures	Capital Cost ($1,000)	Annual O&M $1,000)	Total Cost for 20 Years ($1,000)	Daily VMT Reduction	Cost per Daily VMT	Daily VMT Reduction % in 2047		
						Alternative 1C	Alternative 2	Alternative 3
WCCTAC Express Bus Routes 2, 6, 7	$53,225	$4,020	$133,625	37,700	$3,544	37.9%	45.8%	37.7%
County Connection 15-Minute BART Feeder Network	$10,800	$7,900	$168,800	7,750	$21,781	7.8%	9.4%	7.8%
County Connection Downtown Concord Circulator	$1,912	$1,700	$35,930	2,570	$13,981	2.6%	3.1%	2.6%
Martinez Intermodal Station - SF Bay Trail Gap Closure	$2,226	$0	$2,226	180	$12,367	0.2%	0.2%	0.2%
Parkside Drive Class IV Two-Way Cycle Track	$5,600	$0	$5,600	120	$46,667	0.1%	0.1%	0.1%
Safe Routes 2 BART	$20,200	$0	$20,200	450	$44,889	0.5%	0.5%	0.5%
699 Ygnacio Valley Road (Land Use Mitigation)	$20,000	$0	$20,000	1,956	$10,225	2.0%	2.4%	2.0%

Source: (HDR Engineering, Inc., 2022)
Notes: BART= Bay Area Rapid Transit; SF= San Francisco; VMT = vehicle miles traveled; WCCTAC=West Contra Costa Transportation Advisory Committee; O&M = operations and maintenance
* Alternative 5 is not included because it was screened from requiring VMT analysis or mitigation in accordance with Caltrans, Transportation Analysis under CEQA, First Edition (2020b).

Mitigation Measures Incorporated

The PDT selected the following mitigation measures for the Project, which are described further in Table 4:

- INNOVATE 680: I-680 Express Bus (TRAN-MM-1)
- INNOVATE 680: Shared Mobility Hubs (TRAN-MM-2)
- TDM Program Augmentation (TRAN-MM-3)

Transit Projects

Both the I-680 express bus service (TRAN-MM-1) and the shared mobility hubs (TRAN-MM-2) are incorporated into CCTA's INNOVATE 680 Program. The shared mobility hubs were initially conceived to serve as mitigation for the I-680 Northbound Express Lane Completion Project. Meanwhile, CCTA is currently partnering with County Connection and Livermore Amador Valley Transit Authority to develop the I-680 express bus service.

Both the express bus service and shared mobility hubs would enhance mobility along the I-680 corridor. The hubs would be located at three express bus stops, which would bolster express bus ridership. In addition, the express bus service would benefit from the improved travel time and travel time reliability that the proposed express lane is estimated to provide. Therefore, there is a strong nexus between these mitigation measures and the Project.

As shown in Table 4, both the I-680 express bus service and the shared mobility hubs would have high efficacy. In order to calculate the potential VMT reduction, the I-680 express bus was modelled alone and with the three shared mobility hubs (Kittelson & Associates, 2023; 2022a; 2022b). The I-680 Express Bus (TRAN-MM-1) would result in a reduction of 36,800 daily VMT. The VMT reduction for shared mobility hubs (TRAN-MM-2) would depend on the extent of non-automobile access improvements, with a reduction of 6,600 daily VMT for one mile of improvements or a reduction of 15,400 daily VMT for two miles of improvements.

Table 4. VMT Mitigation Measures Incorporated

Measure	Assumptions	Daily VMT Reduction*
TRAN-MM-1	*I-680 Express Bus Service*. CCTA will work with County Connection and Livermore Amador Valley Transit Authority to implement a new I-680 express bus service and provide funding to rebrand, refurbish, and upgrade six existing buses for interim service (before hydrogen fuel-cell buses are available) and acquire six hydrogen fuel-cell buses (and 1 spare) when they are available for purchase.	36,800
TRAN-MM-2	*Shared Mobility Hubs*. CCTA will pursue funds and ensure the implementation of the following mobility hubs: Bollinger Canyon Road, Walnut Creek Bay Area Rapid Transit Station, and Martinez Amtrak Station. These hubs will be designed to support I-680 Express Bus Service as well as other fixed-route transit services. The hubs may include mobility hub improvements and Mobility-on-Demand/Mobility-as-a-Service application and could potentially include additional mobility services, such as microtransit and/or increased eBike/eScooter operations.	6,600 or 15,400
Tran-MM-3	TDM Program Augmentation. CCTA will pursue funds and ensure the implementation of a countywide TDM Program for the I-680 Express Lane Completion Project. This program will consist of enhancing existing and creating new TDM incentives within Contra Costa County. The program will not supplant, supersede, or replace current CCTA TDM initiatives that are funded by Transportation Fund for Clean Air (TFCA) or Measure J. CCTA will operate the program through the County's existing TDM program (511 Contra Costa).	38,953 or 30,153

Sources: (Kittelson & Associates, 2023; 2022a; 2022b)
Notes:
* Vehicle miles traveled (VMT) for five county Metropolitan Statistical Area - Alameda, Contra Costa, Marin, San Francisco, San Mateo counties. For TRAN-MM-2, a reduction of 6,600 VMT assumes one mile of non-automobile access connection improvements around mobility hubs, and a reduction of 15,400 VMT assumes two miles of improvements around mobility hubs. TRAN-MM-3 would then be used to offset any remaining VMT, if the necessary funding sources are secured.

TDM Program Augmentation

Mitigation Measure TRAN-MM-3 would augment CCTA's existing countywide TDM program (511 Contra Costa [511CC]). This augmented TDM program would consist of augmenting existing incentives and creating new trip reduction and transit incentives within Contra Costa County. Ideally, these programs would incentivize the use of the shared mobility hubs and the I-680 express bus as well as other services along the I-680 corridor.

The existing 511CC Program is funded with a combination of Measure J and Transportation Fund for Clean Air (TFCA) funding. When the analysis for VMT mitigation strategies was conducted in 2022, participant surveys were used to document the effectiveness of existing TFCA-funded programs in 511CC, including the share of non-auto trips that are replacing auto trips, frequency of use, and distances traveled (Kittelson & Associates, 2022a). The benefits of the existing programs, in terms of VMT, are calculated by multiplying the number of participants by the number of trips per participant and the average trip distance reported by survey respondents. 511CC reporting from 2022 indicates that previously implemented TDM programs across all county subregions resulted in an average reduction of 313,956 VMT per weekday. VMT reductions related to expansion of these TDM programs are assumed to be proportional to increases in number of people participating in the incentive programs. For example, a 15 percent increase in program funding and participation would be expected to decrease daily VMT by 47,093 (313,956 * 15%).

CCTA would prepare an implementation plan for the augmented TDM program during final design. A version of the implementation plan would be made available upon request when finalized and may be posted on the INNOVATE 680 website (https://ccta.net/projects/innovate-680/). The implementation plan would include details on specific trip reduction incentives and programs to offset the Project's induced VMT when combined with the other mitigation measures as currently forecasted.

<u>Mitigation Budget and Funding</u>

The mitigation plan provides for meaningful support to transit and transit riders, at a significant cost to the project. The cost for VMT-inducing project alternatives, not including mitigation, ranges from approximately $312 million (Alternative 2) to $498 million (Alternative 3), while mitigation cost ranges from approximately $200 million (Alternative 2) to $210 million (Alternative 3).

Table 5 provides approximate cost estimates as well as the current secured funding for each incorporated mitigation measure for Alternative 2, assuming two miles of non-automobile access improvements around shared mobility hubs. Under Alternative 2, the total cost for VMT mitigation is estimated to be approximately $200 million. To date, CCTA has secured approximately $66 million for VMT mitigation (approximately 33%).

Indefinite mitigation funding is not currently available. It is currently infeasible for the Project to use express lanes toll revenue to fund VMT mitigation. In 2013, MTC assigned the responsibilities for the express lanes to the BAIFA under MTC Resolution 4087 Streets and Highways Code Section 149.7, under which the MTC express lanes network is authorized. This established the MTC network, also called the "BAIFA Express Lanes Facility," as a single financial enterprise, much in the same way the Bay Area Toll Authority toll bridges are a single enterprise. Revenue from any corridor in the facility can be used for eligible expenses on any other corridor. MTC/BAIFA is the operator of the express lanes on I-680 in Contra Costa County.

In March 2024, BAIFA adopted an Express Lanes 10-Year Financial Plan (Financial Plan) and Reserves Policy (Bay Area Infrastructure Financing Authority, 2024). The Financial Plan includes actual revenue and expenses up to June 30, 2023, the budgeted revenue and expenses for fiscal year (FY) 2023-24, and projected revenues and expenses through FY 2032-33, offering a network-level financial perspective for BAIFA's express lanes and tolling infrastructure. The Financial Plan predicts sufficient revenue to cover operating and maintenance and repair and replacement costs, as well as to establish reserves. The Financial Plan does not predict any available toll revenues beyond reserves.

BAIFA's Reserves Policy sets forth appropriate levels of financial reserves for the BAIFA Express Lanes Facility to ensure financial stability; mitigate financial risks, such as revenue shortfalls or unanticipated costs; and maintain the long-term sustainability of the program, ensuring that the program can adapt to changing circumstances and maintain its operations over time. The Reserves Policy was developed based on BAIFA's annual Operating and Capital Budget adoption, and the Financial Plan. The Financial Plan will be updated every two years and projections for available revenues could change in either direction. At this time, toll revenue is not available for VMT mitigation for the Project.

Table 5. Estimated Cost and Secured Funding for VMT Mitigation Measures for Alternative 2*

VMT Mitigation Measures	Capital Cost ($1,000)	O&M Cost for 20 Years ($1,000)	Total Cost ($1,000)	Secured Funding ($1,000)
INNOVATE 680: I-680 Express Bus	$45,633	$74,600	$120,233	$45,633 (38%)
INNOVATE 680: Shared Mobility Hubs	$46,000	$18,000	$64,000	$20,055 (31%)
TDM Program Augmentation	-	$15,310	$15,310	$0 (0%)
Total	$91,633	$107,910	$199,543	$65,688 (33%)

Notes: N/A = Not Applicable; O&M = operations and maintenance; TDM = transportation demand management; VMT = vehicles miles traveled
* Total Cost= Capital Cost+ O&M Cost. Estimated costs assume two miles of non-automobile access improvements around shared mobility hubs and are approximated and in the thousands using 2024 dollars. O&M for the 1-680 express bus is estimated to be $3.73 million per year. Shared mobility hubs are estimated to be $300 thousand per year per hub. TOM Program Augmentation ranges from $367 thousand to $1.2 million per year.

CCTA is actively pursuing VMT mitigation funding. CCTA was awarded partial funding from Transit Intercity Rail Capital Program Cycle 5 for capital costs of a shared mobility hub at Bollinger Canyon Road in the City of San Ramon and the hydrogen infrastructure for a new I-680 express bus service. CCTA was also awarded federal funding from the Carbon Reduction Program for an initial phase of both Martinez Amtrak Shared Mobility Hub and Walnut Creek Bay Area Rapid Transit Station Shared Mobility Hub. However, as depicted in Table 5, capital and operations and maintenance funding has yet to be fully secured.

Current grant programs that have the potential to fund future VMT mitigation include the following:

- Regional One Bay Area Grant Program
- Regional Transit-Oriented Communities & Climate Program Implementation Grants
- Transit Intercity Rail Capital Program
- State Transportation Improvement Program
- Senate Bill (SB) 1 Local Partnership Program
- SB 1 Solutions for Congested Corridor Program
- Active Transportation Program
- California Energy Commission Fuel and Transportation Funding Programs
- United States Department of Transportation Federal Funding Programs
- Bay Area Air Quality Management District's funding programs for public agencies

CCTA anticipates that it could receive additional funds from many of these sources to fund VMT mitigation but cannot feasibly estimate the total funds it would receive

from these or other sources that may arise in the future. As such, total funding levels are uncertain for VMT mitigation. CCTA is committed to continuing to work with BAIFA to seek the necessary funding to implement the VMT mitigation measures for the Project for a 20-year period.

Net VMT Impacts

Alternative 2 has been selected as the preferred alternative for the Project. Table 6 presents the net VMT impacts of the Project with mitigation, assuming two miles of non-automobile access improvements around shared mobility hubs.

Table 6. Net Daily VMT Impacts for Alternative 2*

Project Induced VMT	**+82,353**
TRAN-MM-1: I-680 Express Bus	-36,800
TRAN-MM-2: Shared Mobility Hubs	-15,400
TRAN-MM-3: TDM Program Augmentation	-30,153
TOTAL NET VMT IMPACTS	0

Sources: (Kittelson & Associates, 2023; 2022a; 2022b)
Notes: TDM = transportation demand management; VMT = vehicles miles traveled
* VMT for five county Metropolitan Statistical Area -Alameda, Contra Costa, Marin, San Francisco, San Mateo counties. For TRAN-MM-2, one mile of improvements around mobility hubs would lead to a reduction of 6,600 VMT; two miles of improvements would lead to a reduction of 15,400 VMT. TRAN-MM-3 would then be used to offset any remaining VMT. This table assumes two miles of non-automobile access improvements would be implemented.

The Second Edition TAC (California Department of Transportation, 2025), Appendix A-2, addresses considerations for Caltrans and Project Development Teams. Appendix A-2 includes the following hypothetical example of potential reasons to move forward with a project that induces VMT:

> "Projects that Caltrans believes have been mitigated to a level below significance, but where measurements are qualitative or imprecise or where indefinite ongoing mitigation funding is not assured. A Statement of Overriding Consideration, addressing any 'significant and unavoidable' VMT resulting from the imprecision or uncertainty, could be appropriate."

Combining Mitigation Measures TRAN-MM-1 and TRAN-MM-2 in the model resulted in a daily VMT reduction of approximately 43,400 or 52,500 VMT, depending on the extent of non-automobile access improvements. Under Mitigation

Measure TRAN-MM-3, CCTA and BAIFA would then seek to augment the existing 511CC program proportionate to any remaining Project induced VMT. That is, pending available funding, the TDM program would aim to result in a daily VMT reduction of either 30,153 (two miles of improvements) or 38,953 (one mile of improvements) daily VMT.

Indefinite ongoing mitigation funding is currently infeasible. CCTA is committed to continuing to work with the express lane operator (Bay Area Infrastructure Financing Authority) to seek the necessary funding to implement the proposed VMT mitigation for a 20-year period. The project team used 20 years to correspond with the typical design horizon year. Subject to available funding, the mitigation measures would offset the Project's daily VMT for 20 years and could result in a mode shift that would extend beyond the 20-year period.

VMT mitigation is estimated to cost approximately $200 million. To date, CCTA has secured approximately $66 million for VMT mitigation (see Table 5). Caltrans has determined that the impact on transportation would be significant and unavoidable under CEQA because mitigation funding has not been fully secured, and indefinite ongoing mitigation funding is not assured. A statement of overriding considerations is required to cover the gap between the time-limited mitigation horizon and the indefinite life of the Project.

Summary of Comments Received on Draft EIR/EA

The Draft EIR was available for public review from May 8, 2024, through June 24, 2024 (47-day review period). A Notice of Availability, Notice of Completion, and an electronic version of the Draft EIR were posted on the State Clearinghouse's CEQAnet on May 7, 2024, and at the Contra Costa County Clerk's Office. Notifications of the Draft EIR/EA and the public meetings/hearings were published in the *East Bay Times*, *Sing Tao*, *El Observador*, and *Mercury News*. A postcard mailer was mailed on May 8, 2024, to 484 stakeholders and 7,256 properties. An in-person public meeting/hearing was held on June 5, 2024, and a virtual public meeting/hearing was held on June 6, 2024.

Comments were received regarding the travel demand model used and the VMT mitigation measures proposed. None of the comments resulted in a need to change the VMT analysis or mitigation measures proposed.

Several commenters provided feedback, questions, and opinions related to the induced VMT calculation methodologies and tools used to evaluate alternatives.

Although some commenters stated support for Alternative 5 due to it being the only alternative that would not increase VMT or expressed opposition to any alternative that would induce VMT, a much larger number of comment letters were received opposing Alternative 5 than supporting it. One comment stated that youth passes would not mitigate VMT, but there would be other mitigation strategies within the Augmented TDM Program. Several comments stated that projects should focus on reducing solo driving and improving public transportation. The U.S. Environmental Protection Agency recommended Caltrans consider extending the mitigation measures to the horizon year for *Plan Bay Area 2050* instead of 20 years; however, this would also likely be a shorter timeframe than the life of the Project.

The Final EIR/EA has identified and discussed significant effects that may occur as a result of the Project. The PDT has made a reasonable and good faith effort to eliminate or substantially mitigate the significant impacts resulting from the Project and has made specific findings on each of the Project's significant impacts and on mitigation measures and alternatives. With implementation of the mitigation measures discussed in the Final EIR, the Project's effects on transportation cannot be mitigated to a level of less than significant. Even with implementation of all feasible mitigation, the Project will result in significant and unavoidable impacts on transportation.

Conclusion

California Code of Regulations, Title 14, Section 15093(a) states: “If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered ‘acceptable’.”

The project would provide the following benefits:

- Improve freeway segment speeds on northbound I-680 in the afternoon peak period;
- Substantially improve travel time in general purpose and managed lanes on northbound I-680;
- Improve vehicle hours of delay (VHD) on northbound I-680;
- Improve freeway segment level of service on northbound I-680; and

- Improve VHD in the morning peak period on SR-24.

For these reasons, and the substantial evidence included in the administrative record as a whole, the Commission finds that the benefits of the proposed project outweigh the project's adverse impacts on transportation, specifically, VMT, which cannot be eliminated or reduced to a less than significant level.

Tanisha Taylor		
Executive Director	Signature	Date

References

Bay Area Infrastructure Financing Authority. (2024). *BA/FA Resolution No. 52 - Bay Area Infrastructure Financing Authority (BA/FA) Express Lanes 10-Year Financial Plan and Reserves Policy.* Network and Operations Committee. Agenda Item 5a. Retrieved April 2025, from https://zh-tw.mtc.ca.gov/sites/default/files/meetings/attachments/5948/3a_24_0299_Summary_BAIFA_Reso_0052_EL_10_Yr_Financial_Plan_FY_2024_2033.pdf

California Department of Transportation. (2020a). *Transportation Analysis Framework. First Edition. Evaluating Transportation Impacts of State Highway System Projects.* Retrieved September 2020, from https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-09-10-1st-edition-taf-fnl-a11y.pdf

California Department of Transportation. (2020b). *Transportation Analysis under CEQA. First Edition.* Retrieved February 2022, from https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-09-10-1st-edition-tac-fnl-a11y.pdf

California Department of Transportation. (2022). *When are VMT Impacts from* a *Project Acceptable?* Retrieved November 2024, from https://dot.ca.gov/programs/esta/sb-743/resources/acceptable-impacts

California Department of Transportation. (2025). Transportation Analysis under

CEQA. Second Edition. Retrieved October 3, 2025, from https://dot.ca.gov/-/media/dot-media/programs/sustainability/documents/vmt/202509-tac-2nd-edition-final-a11y.pdf

Fehr and Peers. (2020). *VMT Mitigation through Fees, Banks, and Exchanges. Understanding New Mitigation Approaches.* White Paper for Western Riverside Council of Governments. Retrieved April 2025, from https://www.fehrandpeers.com/wp-content/uploads/2020/04/VMT-Fees_Exchanges_Banks-White-Paper_Apr2020.pdf

HDR Engineering, Inc. (2022). *Vehicle-Miles of Travel Mitigation Methodology and Recommendation.*

Kittelson & Associates. (2022a). *MEMORANDUM: 1-680 Northbound Express Lane Completion: Analysis of VMT Mitigation Effectiveness.* August.

Kittelson & Associates. (2022b). *MEMORANDUM: Innovate 680: Modeling of VMT Mitigation Assumptions - Updated Results.*

Kittelson & Associates. (2023). *1-680 Northbound Express Lane VMT Updates.*

Kittelson & Associates and OKS Associates. (2022). *1-680 Northbound Express Lane Completion Project Travel Forecast Report.*

State of California
DEPARTMENT OF TRANSPORTATION

California State Transportation Agency

MEMORANDUM

To: CHAIR AND COMMISSIONERS
CALIFORNIA TRANSPORTATION COMMISSION

CTC Meeting: March 19-20, 2026

From: STEVEN KECK, Chief Financial Officer

Reference Number: 2.2c.(3), Action Item

Prepared By: Jeremy Ketchum, Chief
Division of Environmental Analysis

Subject: **APPROVAL OF PROJECT FOR FUTURE CONSIDERATION OF FUNDING RESOLUTION E-26-16**

ISSUE:

Should the California Transportation Commission (Commission), as a responsible agency, approve the attached Resolution E-26-16?

RECOMMENDATION:

The California Department of Transportation (Department) recommends that the Commission, as a responsible agency, approve the attached Resolution E-26-16.

BACKGROUND:

04-CC-680, PM R10.7/23.1
Resolution E-26-16

The attached resolution proposes to approve for future consideration of funding the following project for which a Final Environmental Impact Report (FEIR) has been completed:

- Interstate 680 Northbound Express Lane Completion Project: Interstate 680 (I-680) in Contra Costa County. Modify Northbound (NB) I-680 from Livorna Road to South of the Benicia-Martinez Bridge Toll Plaza (Post Mile (PM) R10.7 to 23.1) in Contra Costa County, California. Specifically, reduce the NB express lane gap by constructing a NB express lane from Livorna Road to south of the State Route (SR) 24 Interchange (adding capacity to NB I-680), as well as converting the existing NB High-Occupancy Vehicle (HOV) lane to an express lane from SR 242 to north of Arthur road, and construction of braided ramps for the Lawrence Way on-ramp. (PPNO 2321B)

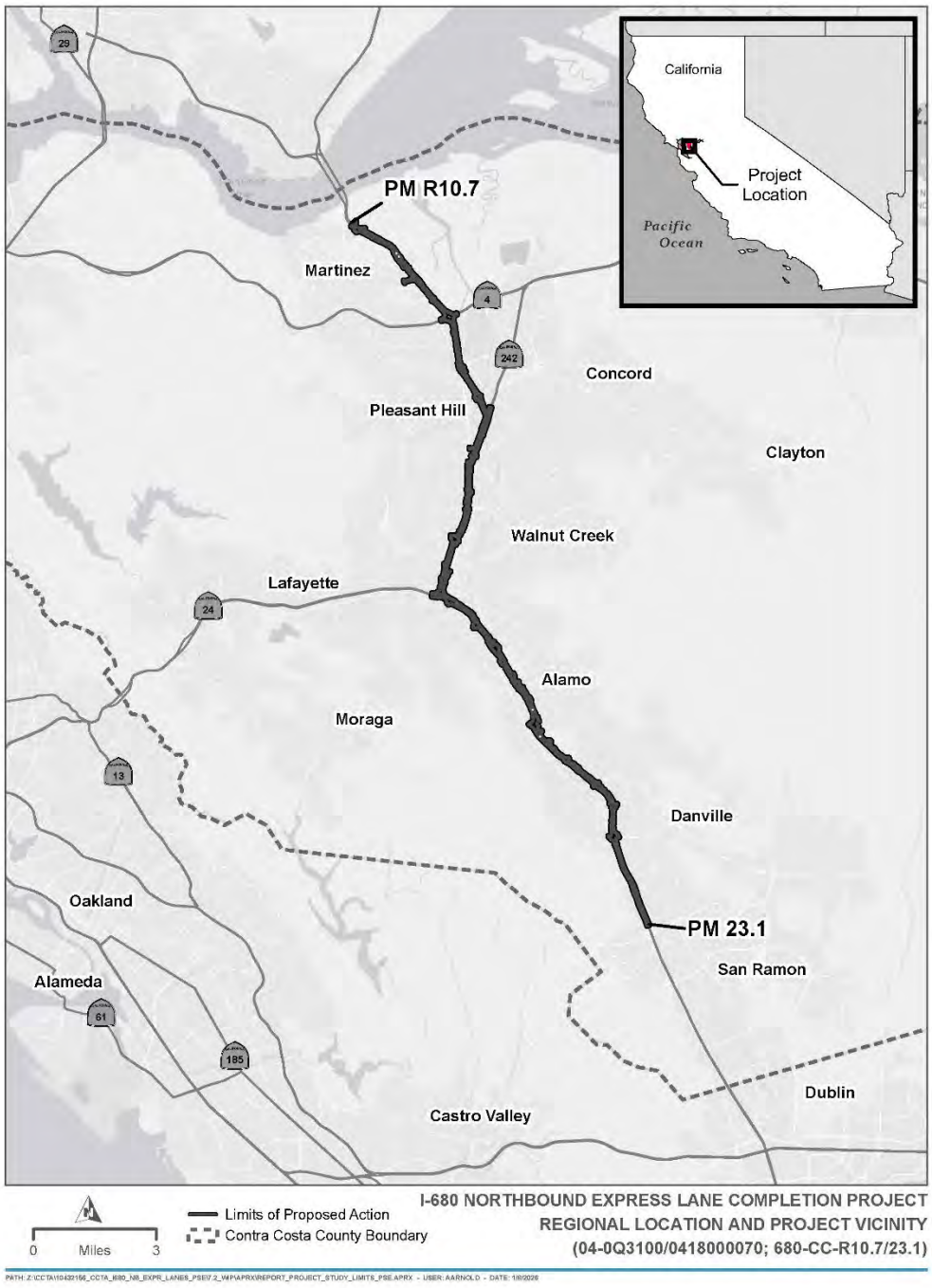
The project is located on I-680 from PM 10.7 to PM 23.1, in Contra Costa County. The project proposes to construct a NB express lane from Livorna Road to SR 242 and convert the

existing northbound HOV lane from SR 242 to north of Arthur Road near Martinez to an express lane. The project is currently programmed in the 2024 State Transportation Improvement Program (STIP). The total programmed amount which includes Right of Way (Capital) and Construction (Capital) is $560,000,000 from STIP Regional Improvement Program, Surface Transportation Program, and Senate Bill 1 Local Partnership Program (Formulaic). Construction is estimated to begin in Fiscal Year 2027-28. The scope, as described for the preferred alternative, is consistent with the project scope as programmed by the Commission in the 2024 STIP.

A copy of the FEIR has been provided to Commission staff. Resources in the project area that may be significantly impacted by the project but would have mitigation measures implemented to reduce impacts to less-than-significant, include biological and aquatic resources (specifically, native plant communities and wetlands or other jurisdictional waters). Avoidance, minimization, and mitigation measures will reduce potential effects on biological and aquatic resources. These measures include, but are not limited to, avoiding native oak woodlands to the maximum extent feasible, replacement or compensatory mitigation for impacted oak trees at a ratio to be determined in consultation with California Department of Fish and Wildlife (based on and proportional to the size of trees removed), preparation and implementation of a Tree Protection Plan during construction, long-term monitoring of replanted trees, avoiding wetlands/waters to the greatest extent practicable, use of permanent best management practices, mitigation for any permanent impacts on aquatic resources at a minimum 1:1 ratio (to be determined in consultation with the permitting agencies during final design), and use of mitigation through onsite restoration, in-lieu fee payment, or purchase of mitigation credits at a mitigation bank approved by permitting agencies. Subject to available funding, Vehicle Miles Traveled mitigation is also proposed, which includes funding express buses, implementation of shared mobility hubs, and augmenting the Transportation Demand Management Program. Potential impacts associated with the project can all be mitigated to below significant except for transportation impacts, for which a Statement of Overriding Considerations pursuant to the California Environmental Quality Act was prepared. As a result, an FEIR was prepared for the project.

Attachments

Attachment 1



Interstate 680 Northbound Express Lane Completion Project

Project Name: Interstate 680 Northbound Express Lane Completion Project
DIST-CO-RTE-PM: 04-CC-680 – PM R10.7/23.1
EA: 04-0Q3100
EFIS ID: 0418000070

CALIFORNIA DEPARTMENT OF TRANSPORTATION
FINDINGS

FOR

THE INTERSTATE 680 NORTHBOUND EXPRESS LANE COMPLETION PROJECT,

WHICH PROPOSES TO MODIFY NORTHBOUND INTERSTATE 680 FROM

LIVORNA ROAD TO SOUTH OF THE BENICIA-MARTINEZ BRIDGE TOLL PLAZA

(POST MILES R10.7 TO 23.1) IN CONTRA COSTA COUNTY, CALIFORNIA.

The following information is presented to comply with State California Environmental Quality Act (CEQA) Guidelines (Title 14 California Code of Regulations, Division 6, Chapter 3, Section 15091) and the Department of Transportation and California Transportation Commission Environmental Regulations (Title 21, California Code of Regulations, Division 2, Chapter 11, Section 1501 et seq.). Reference is made to the Final Environmental Impact Report/ Environmental Assessment (EIR/EA) for the Project, which is the basic source for the information.

The following effects have been identified in the Final EIR/EA as resulting from the Project under Alternative 2 (Reduce the Gap Plus Braided Ramps). Effects found not to be significant have not been included.

BIOLOGICAL RESOURCES

The following impacts on biological resources would result from implementation of the Project:

Adverse Environmental Effects BIO-1:

The Project would impact approximately 1.73 acres of brome grassland, approximately 0.16 acre of coast live oak woodland, and approximately 268 trees, of which 107 are native species. Temporary and permanent impacts on oak woodlands and oak trees are considered potentially significant given the biological importance of oak woodlands. Project redesign to avoid impacting oak woodlands and oak trees proved to be infeasible at this time.

Findings:

Changes or alterations have been required in, or incorporated into, the Project, which avoid or substantially lessen the significant environmental effect as identified in the Final EIR/EA.

Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Statement of Facts:

During the final design phase, impacts on native oak woodlands would be avoided to the maximum extent feasible. General avoidance and minimization measures would reduce the potential for impacting native communities. In addition, the California Department of Transportation (Caltrans) and Contra Costa Transportation Authority (CCTA; Project Sponsor) would implement Mitigation Measure **BIO-MM-1**, requiring mitigation of oak trees that are impacted, in consultation with the regulatory agencies. As a precautionary measure, monitoring by a qualified biologist during construction would also be implemented. Mitigation Measure **BIO-MM-1** would fully offset the loss of oak woodlands and oak trees.

> **BIO-MM-1: Oak Woodlands.** In accordance with Senate Concurrent Resolution No. 17: Oak Woodlands, native oak woodlands will be avoided to the maximum extent feasible. Any oak trees that are impacted would be mitigated through replacement or compensatory mitigation at a ratio to be determined in consultation with California Department of Fish and Wildlife (CDFW) and based on the size of the tree removed, with large-diameter trees requiring greater replacement numbers than small trees. A Tree Protection Plan will be prepared and implemented to minimize damage to native trees during construction. Precise tree planting locations will be determined during the final design phase and will occur within the Caltrans right-of-way. Replanted areas will be monitored for success for up to 3 to 10 years and subject to success criteria. The performance criterion for replacement tree plantings is 70 percent survival of all plantings at the end of the monitoring period.

Adverse Environmental Effects BIO-2:

The Project would impact up to approximately 0.26 acre of wetlands or other jurisdictional waters, which would be confirmed during final design. Temporary and permanent impacts on wetlands and other jurisdictional waters are considered potentially significant given the biological importance of these habitats. Project redesign to avoid impacting aquatic resources proved to be infeasible at this time.

Findings:

Changes or alterations have been required in, or incorporated into, the Project, which avoid or substantially lessen the significant environmental effect as identified in the Final EIR/EA.

Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Statement of Facts:

During the final design phase, impacts on wetlands and other waters would be avoided to the maximum extent practicable. These aquatic resources may fall within United States Army Corps of Engineering (USACE), Regional Water Quality Control Board (RWQCB), and/or CDFW jurisdiction. General avoidance and minimization measures would reduce the potential for impacting wetlands and other waters. If during final design, the Project is unable to avoid jurisdictional resources, a Section 404 (Nationwide) Permit from USACE, Section 401 Water Quality Certification from RWQCB, and/or Section 1602 Streambed Alternation Agreement from CDFW will be sought during the final design phase. Mitigation Measure **BIO-MM-2** would be implemented requiring compensatory mitigation at a ratio that would be determined in consultation with the permitting agencies during final design. Mitigation Measure **BIO-MM-2** would fully offset the loss of wetlands and other waters.

> **BIO-MM-2: Jurisdictional Waters.** Where impact areas overlap or would be adjacent to potential wetlands/waters, these wetlands/waters would be avoided to the greatest extent practicable. The location of permanent best management practices will be refined during final design and wetlands and other waters would be avoided where feasible. Mitigation for any permanent impacts on aquatic resources shall be provided at a minimum of 1:1 ratio, which would be determined in consultation with the permitting agencies during final design. Mitigation can be achieved through onsite restoration, in-lieu fee payment, or purchase of mitigation credits at a mitigation bank approved by USACE or RWQCB. Mitigation as required in regulatory permits issued through USACE and/or the RWQCB may be applied.

TRANSPORTATION

The following impacts on transportation would result from implementation of the Project:

Adverse Environmental Effects TRAN-1:

Any increase in VMT is considered a potentially significant impact under CEQA in accordance with Caltrans, *Transportation Analysis under CEQA* (TAC), First Edition (2020). Under Alternative 2, the Project would result in an increase of 82,353 daily vehicle miles traveled (VMT) compared to the No-Build for the Design Year (2047).

Mitigation measures and alternatives were developed to minimize impacts from VMT. This included the consideration and evaluation of Alternative 5 (Reduce the Gap with General-Purpose Lane Conversion Plus Braided Ramps), which was screened from requiring VMT analysis or mitigation under the TAC because it would not increase capacity. Alternative 5 was not selected as the preferred alternative due to the number of comments received from the public and elected officials opposing the conversion of a general-purpose lane to an express lane as well as the increase in vehicle hours of delay on I-680 in the morning peak period compared to the No-Build Alternative, the projected deterioration of traffic on State Route 24 compared to the No-Build Alternative, and other concerns raised regarding traffic impacts and constructability.

Under Alternative 2, the Project was also found to have a significant cumulative impact, because when combined with other past, current, and probable future projects in the region, the Project would result in a significant increase in VMT.

Findings:

Changes or alterations have been required in, or incorporated into, the Project, which avoid or substantially lessen the significant environmental effect as identified in the Final EIR/EA.

Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR/EA.

Statement of Facts:

Alternative 2 would result in less VMT than the other VMT increasing project alternatives evaluated. Subject to available funding, Caltrans and CCTA (Project Sponsor) would implement the following mitigation measures:

> **TRAN-MM-1: I-680 Express Bus Service**. CCTA will work with County Connection and Livermore Amador Valley Transit Authority to implement a new I-680 express bus service and provide funding to rebrand, refurbish, and upgrade six existing buses for interim service (before hydrogen fuel-cell buses are available) and acquire six hydrogen fuel-cell buses (and 1 spare) when they are available for purchase.
>
> **TRAN-MM-2: Shared Mobility Hubs**. CCTA will pursue funds and ensure the implementation of the following mobility hubs: Bollinger Canyon Road, Walnut Creek Bay Area Rapid Transit Station, and Martinez Amtrak Station. These hubs will be designed to support I-680 Express Bus Service as well as other fixed-route transit services. The hubs may include mobility hub improvements and Mobility-on-Demand/Mobility-as-a-Service application and could potentially

include additional mobility services, such as microtransit and/or increased eBike/eScooter operations.

TRAN-MM-3: Transportation **Demand Management (TDM) Program Augmentation**. CCTA will pursue funds and ensure the implementation of a countywide TDM Program for the I-680 Express Lane Completion Project. This program will consist of enhancing existing and creating new TDM incentives within Contra Costa County. The program will not supplant, supersede, or replace current CCTA TDM initiatives that are funded by Transportation Fund for Clean Air or Measure J. CCTA will operate the program through the County's existing TDM program (511 Contra Costa [511CC]).

The I-680 express bus service (**TRAN-MM-1**) is estimated to result in a VMT reduction of 36,800 VMT. The VMT reduction for shared mobility hubs (**TRAN-MM-2**) would depend on the extent of non-automobile access improvements, with a reduction of 6,600 VMT estimated for one mile of improvements and an estimate of 15,400 VMT for two miles of improvements. The augmentation of 511CC (**TRAN-MM-3**) would then be used to offset the Project's remaining daily VMT, if the necessary funding sources are secured. That is, the TDM program would seek a reduction of either 38,953 or 30,153 daily VMT depending on the extent of non-automobile access improvements. At this time, it is assumed that two miles of non-automobile access improvements around shared mobility hubs would be implemented. An implementation plan for the TDM program would be prepared during final design.

Indefinite ongoing mitigation funding is currently infeasible. CCTA is committed to continuing to work with the express lane operator (Bay Area Infrastructure Financing Authority) to seek the necessary funding to implement the proposed VMT mitigation for a 20-year period. The project team used 20 years to correspond with the typical design horizon year. Subject to available funding, the mitigation measures would offset the Project's daily VMT for 20 years and could result in a mode shift that would extend beyond the 20-year period.

VMT mitigation is estimated to cost approximately $200 million. To date, CCTA has secured approximately $66 million for VMT mitigation. Caltrans has determined that the impact on transportation would be significant and unavoidable under CEQA because mitigation funding has not been fully secured, and indefinite ongoing mitigation funding is not assured.

David Ambuehl
David Ambuehl (Oct 31, 2025 11:29:13 PDT)

10/31/25

David D. Ambuehl Acting District Director California Department of Transportation District 4	Signature	Date

Project Name: Interstate 680 Northbound Express Lane Completion Project
DIST-CO-RTE-PM: 04-CC-680 – PM R10.7/23.1
EA: 04-0Q3100
EFIS ID: 0418000070

CALIFORNIA DEPARTMENT OF TRANSPORTATION STATEMENT OF OVERRIDING CONSIDERATIONS

FOR

THE INTERSTATE 680 NORTHBOUND EXPRESS LANE COMPLETION PROJECT, WHICH PROPOSES TO MODIFY NORTHBOUND INTERSTATE 680 FROM LIVORNA ROAD TO SOUTH OF THE BENICIA-MARTINEZ BRIDGE TOLL PLAZA (POST MILES R10.7 TO 23.1) IN CONTRA COSTA COUNTY, CALIFORNIA.

The following information is presented to comply with State California Environmental Quality Act (CEQA) Guidelines (Title 14 California Code of Regulations, Division 6, Chapter 3, Section 15093), and the Department of Transportation and California Transportation Commission Environmental Regulations (Title 21 California Code of Regulations, Division 2, Chapter 11, Section 1501 et seq.). Reference is made to the Final Environmental Impact Report/ Environmental Assessment (EIR/EA) for the Project, which is the basic source for the information.

The following impacts have been identified as significant and not fully mitigable:

Transportation

According to the California Department of Transportation (Caltrans), *Transportation Analysis under CEQA* (TAC) (California Department of Transportation, 2025), a project within a metropolitan planning organization area "that results in an increase in [vehicle miles traveled (VMT)] when comparing the future build alternative to the future no-build alternative (i.e., the VMT is higher under the future build scenario) will generally be considered significant, and mitigation will be required."

Implementing the Interstate 680 (I-680) Northbound Express Lane Completion Project (Project) under Alternative 2 would result in an increase of 82,353 daily VMT compared to the No-Build Alternative for the Design Year (2047). Mitigation has been incorporated to offset the Project's increase in VMT, which includes implementing an express bus service and shared mobility hubs and augmenting Contra County's existing countywide transportation demand management (TDM) program (511 Contra Costa [511CC]). The Project Sponsor (Contra Costa Transportation Authority [CCTA]) is committed to continuing to work with the express lane operator (Bay Area Infrastructure Financing Authority [BAIFA]) to seek the

necessary funding to implement the VMT mitigation measures for a 20-year period. Caltrans has determined that the impact would be potentially significant and unavoidable because mitigation funding has not been fully secured and indefinite mitigation funding is not assured.

Cumulative

When considering the effects of past, present, and future actions and other projects in the Resource Study Area, Alternative 2 would result in a significant cumulatively considerable impact on transportation because mitigation funding has not been fully secured and indefinite mitigation funding is not assured.

Overriding considerations that support approval of this recommended Project are as follows:

Project Overview

The purpose of the Project is to:

- Reduce peak-period congestion and delay on northbound I-680.
- Encourage use of high-occupancy vehicles (HOV) and transit service.
- Offer non-carpool eligible drivers a reliable travel time option.
- Optimize use of the existing HOV lane capacity in the I-680 corridor to better meet current and future traffic demands.
- Reduce travel time and improve travel time reliability for travelers in the corridor.

The need for the Project to address existing transportation problems within the Project Study Limits are:

- **Congestion** – Northbound I-680 general-purpose lanes within the Project Study Limits experience substantial congestion – over 30 minutes of delay – during peak hours.
- **System Continuity** – There is a 7.5-mile gap in the existing northbound I-680 managed lane system between Livorna Road and State Route (SR) 242; system continuity is lacking through this area, diminishing the effectiveness of the managed lane system and increasing travel time for all users.
- **Operational Improvements** – The weaving movement between Lawrence Way and Treat Boulevard creates a bottleneck on I-680 and a traffic queue as far back as Livorna Road during the afternoon peak traffic

period. The situation is compounded by the gap in the managed lane system.

Build Alternatives

Design and build alternatives were developed to meet the Project purpose and need while avoiding or minimizing environmental effects. The Project alternatives carried forward for evaluation are as follows:

Build Alternative 1C:	Close the Gap with Realignment
Build Alternative 2:	Reduce the Gap Plus Braided Ramps
Build Alternative 3:	Close the Gap with Realignment Plus Braided Ramps
Build Alternative 5:	Reduce the Gap with General-Purpose Lane Conversion Plus Braided Ramp
No-Build Alternative:	The No-Build Alternative does not include any improvement on I-680

The Project Development Team (PDT) worked thoroughly to identify VMT-reducing or neutral project alternatives. As described in Section 1.4.6, *Alternatives Considered but Eliminated*, of the Final EIR/EA, the PDT developed Alternative 4 (Reduce the Gap with HOV Lane Conversion Plus Braided Ramps) and Alternative 5 (Reduce the Gap with General-Purpose Lane Conversion Plus Braided Ramps) to avoid increasing VMT. Alternative 4 performed operationally worse than the No-Build Alternative and was eliminated from evaluation during the development of the Draft EIR/EA. The PDT carried Alternative 5 forward for evaluation in the Draft EIR/EA.

Alternative 2 has been selected as the preferred alternative for the Project.

Project Benefits

The Project would result in the following traffic operational benefits compared to the No-Build for the Design Year (2047) as described in more detail in Section 2.1.8, *Traffic and Transportation/Pedestrian and Bicycle Facilities* of the Final EIR/EA:

- Improve freeway segment speeds on northbound I-680 in the afternoon peak period;
- Substantially improve travel time in general purpose and managed lanes on northbound I-680;
- Improve vehicle hours of delay (VHD) on northbound I-680;
- Improve freeway segment level of service on northbound I-680; and

- Improve VHD in the morning peak period on SR-24.

Among the four Build Alternatives evaluated in the Final EIR/EA (i.e., Alternatives 1C, 2, 3, and 5), Alternative 2 provides the most overall operational benefits and best meets the Project's purpose and need. Alternative 2 is a feasible and prudent alternative that would reduce peak-period congestion and delay on northbound I-680; encourage use of HOV and transit service; offer non-carpool eligible drivers a reliable travel time option; optimize use of the existing HOV lane capacity in the I-680 corridor to better meet current and future traffic demands; and reduce travel time and improve travel time reliability for travelers in the corridor. In sum, the Project would provide motorists with a consistent cross-section and managed lanes in the corridor, as well as reduced travel times and reduced weaving conflicts.

Additional reasons why Alternative 2 was selected as the preferred alternative include the following:

- Unlike all other Build Alternatives evaluated, Alternative 2 would substantially improve freeway segment speeds, travel time, VHD, and vehicle and person throughput on I-680 during the afternoon peak period in the Design Year.

- Unlike all other Build Alternatives evaluated, Alternative 2 would not deteriorate and would substantially improve VHD on SR-24 during the afternoon peak period in the Design Year.

- Alternative 2 would improve freeway segment speeds, travel time, and VHD on I-680 during the morning peak period in the Design Year. Alternative 5 would deteriorate all of these metrics.

- Alternative 2 would require less right-of-way (ROW) than Alternatives 1C and 3. Unlike Alternatives 1C and 3, Alternative 2 would not require permanent or temporary ROW from private property.

- Alternative 2 would require fewer design exceptions than Alternatives 1C and 3, indicating increased likelihood for constructability.

- Unlike Alternatives 1C and 3, Alternative 2 would not include 11-month closure of Olympic Boulevard and would have fewer overnight closures than Alternatives 1C and 3.

- Unlike Alternatives 1C and 3, Alternative 2 would not require the replacement of existing soundwalls and construction of new soundwalls at the SR-24 Interchange (i.e., Noise Barrier System 5/24-RW2/SW No.1/24-RW4).

- Unlike Alternative 3, Alternative 2 would not result in a deficit of post-construction treatment areas.

- The capital and mitigation cost of Alternative 2 would be less than Alternatives 1C and 3.
- Alternative 2 would result in fewer VMT impacts and require less mitigation than Alternatives 1C and 3.
- Of the 81 comments received on the Draft EIR/EA, 32 opposed the conversion of a general-purpose lane without adding capacity (i.e., Alternative 5).

Alternative 5 was not selected as the preferred alternative due to the number of comments received from the public and elected officials opposing the conversion of a general-purpose lane to an express lane during the Draft EIR/EA public comment period as well as the increase in VHD on I-680 in the morning peak period compared to the No-Build Alternative, the projected deterioration of traffic on SR-24 compared to the No-Build Alternative, and other concerns raised regarding traffic impacts and constructability.

Raw VMT Impacts

The Project's traffic forecast analysis applied a model benchmarking approach to provide VMT analysis for the Project, which is discussed further in Section 2.1.8, *Traffic and Transportation/Pedestrian and Bicycle Facilities*, of the final environmental document.

As shown in **Table 1**, Alternative 2 would generate approximately 82,353 VMT by the Design Year (2047), which is less VMT than Alternative 1C (99,389 VMT) or Alternative 3 (99,986 VMT). Alternative 5 is not included in Table 1 because it was screened from requiring VMT analysis or mitigation under CEQA in accordance with the TAC (California Department of Transportation, 2020b; 2025).

Table 1. VMT Estimate for Build Alternatives Evaluated

Alt.	Opening Year (2027)		Design Year (2047) With Trucks			Design Year (2047) Without Trucks	
	Daily VMT	Difference from No-Build	Daily VMT	Difference from No-Build	Daily Truck VMT	Daily VMT	Difference from No-Build
No-Build	102,853,478	-	115,101,953	-	3,697,410	111,404,543	-
Alt 1C	102,922,450	+68,973	115,204,075	+102,122	3,700,143	111,503,933	+99,389
Alt 2*	102,916,580	+63,102	115,186,351	+84,398	3,699,455	111,486,896	+82,353
Alt 3	102,925,286	+71,808	115,204,937	+102,985	3,700,408	111,504,529	+99,986

Source: (Kittelson & Associates, 2023)
Notes: Vehicle miles traveled (VMT) for five county Metropolitan Statistical Area – Alameda, Contra Costa, Marin, San Francisco, San Mateo counties. Alternative 5 is not included because it was screened from requiring VMT analysis or mitigation in accordance with Caltrans, *Transportation Analysis under CEQA*, First Edition (2020b).
*Alternative 2 is the preferred alternative.

Mitigation

Mitigation Measures Reviewed

Table 2 provides a list of mitigation strategies that the PDT assessed prior to the preparing the Administrative Draft EIR/EA. This list was screened from a list of over 120 considered projects developed through researching the TAC, projects in the Metropolitan Transportation Commission's (MTC) Regional Transportation Plan (*Plan Bay Area 2050*), projects that were not included in the RTP, and recent planning studies. Mitigation strategies was evaluated based on several factors, such as feasibility, cost effectiveness, efficacy in VMT reduction, additionality, sponsor willingness, and schedule (i.e., can the mitigation be implemented in a reasonable time frame) (HDR Engineering, Inc., 2022; Kittelson & Associates, 2022a). "Additionality" refers to the assurance that a mitigation investment provides additional resources that otherwise would not have been provided or provides additional resources substantially earlier than otherwise would have been available but for the project.

Table 2. Mitigation Strategies Evaluated

Project or Initiative	Locations
INNOVATE 680: I-680 Express Bus (Livermore Amador Valley Transit Authority / County Connection)	Martinez Amtrak to Dublin/Pleasanton Bay Area Rapid Transit (BART) and Pleasanton Altamont Corridor Express. Operated with Zero Emission Hydrogen Fuel Cell Electric Bus.
INNOVATE 680: Shared Mobility Hubs	Three locations along the I-680 Corridor. Evaluated with and without added micro mobility services.
West Contra Costa Transportation Advisory Committee Express Bus Routes 2, 6, 7	West Contra Costa County to downtown Berkeley and Oakland
County Connection 15-Minute BART Feeder Network	Central Contra Costa County
County Connection Downtown Concord Circulator	Concord BART – Willows Shopping Center
Martinez Intermodal Station - Crockett San Francisco Bay Trail Gap Closure Project	Martinez
Parkside Drive Class IV Two-Way Cycle Track	Walnut Creek, Parkside Drive - Provide protected cycle track connection between Walnut Creek BART and Iron Horse Trail
Safe Routes 2 BART	Iron Horse Trail to Walnut Creek BART via California Boulevard
Land Use Mitigation	Prototype affordable housing project in Walnut Creek
Transportation Demand Management Program: Expansion of 511 Contra Costa Programs	Contra Costa County

Caltrans and many stakeholders are interested in organizing mitigation efforts through VMT impact fee programs, mitigation banks, or mitigation exchanges (Center for Law, Energy, and the Environment, 2022; Fehr and Peers, 2020). Contra Costa County does not currently have a working VMT impact fee program, bank, or exchange in place that could be used for the current Project. Therefore, the PDT focused primarily on identifying direct mitigation for the Project (i.e., mitigation when a lead agency commits to developing or funding specific VMT-reducing projects or initiatives).

Mitigation Measures Deemed Too Costly or Infeasible

Table 3 provides additional details regarding mitigation strategies that were evaluated but eliminated from further consideration due to their low effectiveness, high cost, and/or lack of nexus to the Project.

Table 3. Mitigation Eliminated from Further Consideration

Mitigation Measures	Capital Cost ($1,000)	Annual O&M ($1,000)	Total Cost for 20 Years ($1,000)	Daily VMT Reduction	Cost per Daily VMT	Daily VMT Reduction % in 2047*		
						Alt 1C	Alt 2	Alt 3
WCCTAC Express Bus Routes 2, 6, 7	$53,225	$4,020	$133,625	37,700	$3,544	37.9%	45.8%	37.7%
County Connection 15-Minute BART Feeder Network	$10,800	$7,900	$168,800	7,750	$21,781	7.8%	9.4%	7.8%
County Connection Downtown Concord Circulator	$1,912	$1,700	$35,930	2,570	$13,981	2.6%	3.1%	2.6%
Martinez Intermodal Station - SF Bay Trail Gap Closure	$2,226	$0	$2,226	180	$12,367	0.2%	0.2%	0.2%
Parkside Drive Class IV Two-Way Cycle Track	$5,600	$0	$5,600	120	$46,667	0.1%	0.1%	0.1%
Safe Routes 2 BART	$20,200	$0	$20,200	450	$44,889	0.5%	0.5%	0.5%
699 Ygnacio Valley Road (Land Use Mitigation)	$20,000	$0	$20,000	1,956	$10,225	2.0%	2.4%	2.0%

Source: (HDR Engineering, Inc., 2022)
Notes: BART = Bay Area Rapid Transit; SF = San Francisco; VMT = vehicle miles traveled; WCCTAC=West Contra Costa Transportation Advisory Committee
* Alternative 5 is not included because it was screened from requiring VMT analysis or mitigation in accordance with Caltrans, *Transportation Analysis under CEQA,* First Edition (2020b).

Mitigation Measures Incorporated

The PDT selected the following mitigation measures for the Project, which are described further in Table 4:

- INNOVATE 680: I-680 Express Bus (**TRAN-MM-1**)
- INNOVATE 680: Shared Mobility Hubs (**TRAN-MM-2**)
- TDM Program Augmentation (**TRAN-MM-3**)

Transit Projects

Both the I-680 express bus service (**TRAN-MM-1**) and the shared mobility hubs (**TRAN-MM-2**) are incorporated into CCTA's INNOVATE 680 Program. The shared mobility hubs were initially conceived to serve as mitigation for the I-680 Northbound Express Lane Completion Project. Meanwhile, CCTA is currently partnering with County Connection and Livermore Amador Valley Transit Authority to develop the I-680 express bus service.

Both the express bus service and shared mobility hubs would enhance mobility along the I-680 corridor. The hubs would be located at three express bus stops, which would bolster express bus ridership. In addition, the express bus service would benefit from the improved travel time and travel time reliability that the proposed express lane is estimated to provide. Therefore, there is a strong nexus between these mitigation measures and the Project.

As shown in Table 4, both the I-680 express bus service and the shared mobility hubs would have high efficacy. In order to calculate the potential VMT reduction, the I-680 express bus was modelled alone and with the three shared mobility hubs (Kittelson & Associates, 2023; 2022a; 2022b). The I-680 Express Bus (**TRAN-MM-1**) would result in a reduction of 36,800 daily VMT. The VMT reduction for shared mobility hubs (**TRAN-MM-2**) would depend on the extent of non-automobile access improvements, with a reduction of 6,600 daily VMT for one mile of improvements or a reduction of 15,400 daily VMT for two miles of improvements.

TDM Program Augmentation

Mitigation Measure **TRAN-MM-3** would augment CCTA's existing countywide TDM program (511 Contra Costa [511CC]). This augmented TDM program would consist of augmenting existing incentives and creating new trip reduction and transit incentives within Contra Costa County. Ideally, these programs would incentivize the use of the shared mobility hubs and the I-680 express bus as well as other services along the I-680 corridor.

Table 4. VMT Mitigation Measures Incorporated

Measure	Assumptions	Daily VMT Reduction*
TRAN-MM-1	*I-680 Express Bus Service*. Contra Costa Transportation Authority (CCTA) will work with County Connection and Livermore Amador Valley Transit Authority to implement a new I-680 express bus service and provide funding to rebrand, refurbish, and upgrade six existing buses for interim service (before hydrogen fuel-cell buses are available) and acquire six hydrogen fuel-cell buses (and 1 spare) when they are available for purchase.	36,800
TRAN-MM-2	*Shared Mobility Hubs*. CCTA will pursue funds and ensure the implementation of the following mobility hubs: Bollinger Canyon Road, Walnut Creek Bay Area Rapid Transit Station, and Martinez Amtrak Station. These hubs will be designed to support I-680 Express Bus Service as well as other fixed-route transit services. The hubs may include mobility hub improvements and Mobility-on-Demand/Mobility-as-a-Service application and could potentially include additional mobility services, such as microtransit and/or increased eBike/eScooter operations.	6,600 or 15,400
TRAN-MM-3	*Transportation Demand Management (TDM) Program Augmentation*. CCTA will pursue funds and ensure the implementation of a countywide TDM Program for the I-680 Express Lane Completion Project. This program will consist of enhancing existing and creating new TDM incentives within Contra Costa County. The program will not supplant, supersede, or replace current CCTA TDM initiatives that are funded by Transportation Fund for Clean Air (TFCA) or Measure J. CCTA will operate the program through the County's existing TDM program (511 Contra Costa).	38,953 or 30,153

Sources: (Kittelson & Associates, 2023; 2022a; 2022b)
Notes:
* Vehicle miles traveled (VMT) for five county Metropolitan Statistical Area – Alameda, Contra Costa, Marin, San Francisco, San Mateo counties. For TRAN-MM-2, a reduction of 6,600 VMT assumes one mile of non-automobile access connection improvements around mobility hubs, and a reduction of 15,400 VMT assumes two miles of improvements around mobility hubs. TRAN-MM-3 would then be used to offset any remaining VMT, if the necessary funding sources are secured.

The existing 511CC Program is funded with a combination of Measure J and Transportation Fund for Clean Air (TFCA) funding. When the analysis for VMT mitigation strategies was conducted in 2022, participant surveys were used to document the effectiveness of existing TFCA-funded programs in 511CC, including the share of non-auto trips that are replacing auto trips, frequency of use, and distances traveled (Kittelson & Associates, 2022a). The benefits of the existing programs, in terms of VMT, are calculated by multiplying the number of participants by the number of trips per participant and the average trip distance reported by survey respondents. 511CC reporting from 2022 indicates that previously implemented TDM programs across all county subregions resulted in an average reduction of 313,956 VMT per weekday. VMT reductions related to expansion of these TDM programs are assumed to be proportional to increases in number of people participating in the incentive programs. For example, a 15 percent increase in program funding and participation would be expected to decrease daily VMT by 47,093 (313,956 * 15%).

CCTA would prepare an implementation plan for the augmented TDM program during final design. A version of the implementation plan would be made available upon request when finalized and may be posted on the INNOVATE 680 website (https://ccta.net/projects/innovate-680/). The implementation plan would include details on specific trip reduction incentives and programs to offset the Project's induced VMT when combined with the other mitigation measures as currently forecasted.

Mitigation Budget and Funding

The mitigation plan provides for meaningful support to transit and transit riders, at a significant cost to the project. The cost for VMT-inducing project alternatives, not including mitigation, ranges from approximately $312 million (Alternative 2) to $498 million (Alternative 3), while mitigation cost ranges from approximately $200 million (Alternative 2) to $210 million (Alternative 3).

Table 5 provides approximate cost estimates as well as the current secured funding for each incorporated mitigation measure for Alternative 2, assuming two miles of non-automobile access improvements around shared mobility hubs. Under Alternative 2, the total cost for VMT mitigation is estimated to be approximately $200 million. To date, CCTA has secured approximately $66 million for VMT mitigation (approximately 33%).

Table 5. Estimated Cost and Secured Funding for VMT Mitigation Measures for Alternative 2*

VMT Mitigation Measure	Capital Cost ($1,000)	O&M Cost for 20 Years ($1,000)	Total Cost ($1,000)	Secured Funding ($1,000)
INNOVATE 680: I-680 Express Bus	$45,633	$74,600	$120,233	$45,633 (38%)
INNOVATE 680: Shared Mobility Hubs	$46,000	$18,000	$64,000	$20,055 (31%)
TDM Program Augmentation	-	$15,310	$15,310	$0 (0%)
Total	$91,633	$107,910	$199,543	$65,688 (33%)

Notes: N/A = Not Applicable; O&M = operations and maintenance; TDM = transportation demand management; VMT = vehicles miles traveled

* Total Cost = Capital Cost + O&M Cost. Estimated costs assume two miles of non-automobile access improvements around shared mobility hubs and are approximated and in the thousands using 2024 dollars. O&M for the I-680 express bus is estimated to be $3.73 million per year. Shared mobility hubs are estimated to be $300 thousand per year per hub. TDM Program Augmentation ranges from $367 thousand to $1.2 million per year.

Indefinite mitigation funding is not currently available. It is currently infeasible for the Project to use express lanes toll revenue to fund VMT mitigation. In 2013, MTC assigned the responsibilities for the express lanes to the BAIFA under MTC Resolution 4087 Streets and Highways Code Section 149.7, under which the MTC express lanes network is authorized. This established the MTC network, also called the "BAIFA Express Lanes Facility," as a single financial enterprise, much in the same way the Bay Area Toll Authority toll bridges are a single enterprise. Revenue from any corridor in the facility can be used for eligible expenses on any other corridor. MTC/BAIFA is the operator of the express lanes on I-680 in Contra Costa County.

In March 2024, BAIFA adopted an Express Lanes 10-Year Financial Plan (Financial Plan) and Reserves Policy (Bay Area Infrastructure Financing Authority, 2024). The Financial Plan includes actual revenue and expenses up to June 30, 2023, the budgeted revenue and expenses for fiscal year (FY) 2023-24, and projected revenues and expenses through FY 2032-33, offering a network-level financial perspective for BAIFA's express lanes and tolling infrastructure. The Financial Plan predicts sufficient revenue to cover operating and maintenance and repair and replacement costs, as well as to establish reserves. The Financial Plan does not predict any available toll revenues beyond reserves.

BAIFA's Reserves Policy sets forth appropriate levels of financial reserves for the BAIFA Express Lanes Facility to ensure financial stability; mitigate financial risks, such as revenue shortfalls or unanticipated costs; and maintain the long-term sustainability of the program, ensuring that the program can adapt to changing circumstances and maintain its operations over time. The Reserves Policy was developed based on BAIFA's annual Operating and Capital Budget adoption, and the Financial Plan. The Financial Plan will be updated every two years and projections for available revenues could change in either direction. At this time, toll revenue is not available for VMT mitigation for the Project.

CCTA is actively pursuing VMT mitigation funding. CCTA was awarded partial funding from Transit Intercity Rail Capital Program Cycle 5 for capital costs of a shared mobility hub at Bollinger Canyon Road in the City of San Ramon and the hydrogen infrastructure for a new I-680 express bus service. CCTA was also awarded federal funding from the Carbon Reduction Program for an initial phase of both Martinez Amtrak Shared Mobility Hub and Walnut Creek Bay Area Rapid Transit Station Shared Mobility Hub. However, as depicted in Table 5, capital and operations and maintenance funding has yet to be fully secured.

Current grant programs that have the potential to fund future VMT mitigation include the following:

- Regional One Bay Area Grant Program
- Regional Transit-Oriented Communities & Climate Program Implementation Grants

- Transit Intercity Rail Capital Program
- State Transportation Improvements Program
- Senate Bill (SB) 1 Local Partnership Program
- SB 1 Solutions for Congested Corridor Program
- SB 1 Active Transportation Program
- California Energy Commission Fuel and Transportation Funding Programs
- United States Department of Transportation Federal Funding Programs
- Bay Area Air Quality Management District's funding programs for public agencies

CCTA anticipates that it could receive additional funds from many of these sources to fund VMT mitigation but cannot feasibly estimate the total funds it would receive from these or other sources that may arise in the future. As such, total funding levels are uncertain for VMT mitigation. CCTA is committed to continuing to work with BAIFA to seek the necessary funding to implement the VMT mitigation measures for the Project for a 20-year period.

Net VMT Impacts

Alternative 2 has been selected as the preferred alternative for the Project. **Table 6** presents the net VMT impacts of the Project with mitigation, assuming two miles of non-automobile access improvements around shared mobility hubs.

Table 6. Net Daily VMT Impacts for Alternative 2*

Project Induced VMT	**+82,353**
TRAN-MM-1: I-680 Express Bus	-36,800
TRAN-MM-2: Shared Mobility Hubs	-15,400
TRAN-MM-3: TDM Program Augmentation	-30,153
TOTAL NET VMT IMPACTS	**0**

Sources: (Kittelson & Associates, 2023; 2022a; 2022b)
Notes: TDM = transportation demand management; VMT = vehicles miles traveled
* VMT for five county Metropolitan Statistical Area – Alameda, Contra Costa, Marin, San Francisco, San Mateo counties. For TRAN-MM-2, one mile of improvements around mobility hubs would lead to a reduction of 6,600 VMT; two miles of improvements would lead to a

reduction of 15,400 VMT. TRAN-MM-3 would then be used to offset any remaining VMT. This table assumes two miles of non-automobile access improvements would be implemented.

The Second Edition TAC (California Department of Transportation, 2025), Appendix A-2, addresses considerations for Caltrans and Project Development Teams. Appendix A-2 includes the following hypothetical example of potential reasons to move forward with a project that induces VMT:

> "Projects that Caltrans believes have been mitigated to a level below significance, but where measurements are qualitative or imprecise or where indefinite ongoing mitigation funding is not assured. A Statement of Overriding Consideration, addressing any 'significant and unavoidable' VMT resulting from the imprecision or uncertainty, could be appropriate."

Combining Mitigation Measures **TRAN-MM-1** and **TRAN-MM-2** in the model resulted in a daily VMT reduction of approximately 43,400 or 52,500 VMT, depending on the extent of non-automobile access improvements. Under Mitigation Measure **TRAN-MM-3**, CCTA and BAIFA would then seek to augment the existing 511CC program proportionate to any remaining Project induced VMT. That is, pending available funding, the TDM program would aim to result in a daily VMT reduction of either 30,153 (two miles of improvements) or 38,953 (one mile of improvements) daily VMT.

Indefinite ongoing mitigation funding is currently infeasible. CCTA is committed to continuing to work with the express lane operator (Bay Area Infrastructure Financing Authority) to seek the necessary funding to implement the proposed VMT mitigation for a 20-year period. The project team used 20 years to correspond with the typical design horizon year. Subject to available funding, the mitigation measures would offset the Project's daily VMT for 20 years and could result in a mode shift that would extend beyond the 20-year period.

VMT mitigation is estimated to cost approximately $200 million. To date, CCTA has secured approximately $66 million for VMT mitigation (see Table 5). Caltrans has determined that the impact on transportation would be significant and unavoidable under CEQA because mitigation funding has not been fully secured, and indefinite ongoing mitigation funding is not assured. A statement of overriding considerations is required to cover the gap between the time-limited mitigation horizon and the indefinite life of the Project.

Summary of Comments Received on Draft EIR/EA

The Draft EIR/EA was available for public review from May 8, 2024, through June 24, 2024 (47-day review period). A Notice of Availability, Notice of Completion, and an electronic version of the Draft EIR/EA were posted on the State Clearinghouse's CEQAnet on May 7, 2024, and at the Contra Costa County Clerk's Office. Notifications of the Draft EIR/EA and the public meetings/hearings were published in the *East Bay Times*, *Sing Tao*, *El Observador*, and *Mercury News*. A postcard mailer was mailed on May 8, 2024, to 484 stakeholders and 7,256 properties. An in-person

public meeting/hearing was held on June 5, 2024, and a virtual public meeting/hearing was held on June 6, 2024.

Comments were received regarding the travel demand model used and the VMT mitigation measures proposed. None of the comments resulted in a need to change the VMT analysis or mitigation measures proposed.

Several commenters provided feedback, questions, and opinions related to the induced VMT calculation methodologies and tools used to evaluate alternatives. Although some commenters stated support for Alternative 5 due to it being the only alternative that would not increase VMT or expressed opposition to any alternative that would induce VMT, a much larger number of comment letters were received opposing Alternative 5 than supporting it. One comment stated that youth passes would not mitigate VMT, but there would be other mitigation strategies within the Augmented TDM Program. Several comments stated that projects should focus on reducing solo driving and improving public transportation. The U.S. Environmental Protection Agency recommended Caltrans consider extending the mitigation measures to the horizon year for *Plan Bay Area 2050* instead of 20 years; however, this would also likely be a shorter timeframe than the life of the Project.

The Final EIR/EA has identified and discussed significant effects that may occur as a result of the Project. The PDT has made a reasonable and good faith effort to eliminate or substantially mitigate the significant impacts resulting from the Project and has made specific findings on each of the Project's significant impacts and on mitigation measures and alternatives. With implementation of the mitigation measures discussed in the Final EIR/EA, the Project's effects on transportation cannot be mitigated to a level of less than significant. Even with implementation of all feasible mitigation, the Project will result in significant and unavoidable impacts on transportation.

Conclusion

Pursuant to Section 15093(a) of the State CEQA Guidelines, decision-makers are required to balance the benefits of a project against its unavoidable environmental risks in determining whether to approve a project. If the benefits of a project outweigh the unavoidable adverse effects, the adverse environmental effects may be considered "acceptable". The State CEQA Guidelines require that, when a public agency allows for the occurrence of significant effects which are identified in the Final EIR but are not at least substantially mitigated, the agency shall state in writing the specific reasons the action was supported. Any statement of overriding considerations should be included in the record of project approval and should be mentioned in the Notice of Determination.

Based on the above discussion and on the evidence presented, Caltrans therefore finds that the benefits of the Project outweigh the adverse impacts on transportation from the I-680 Northbound Express Lane Completion Project, which cannot be eliminated or reduced to a less than significant level.

David Ambuehl
David Ambuehl (Oct 31, 2025 11:31:21 PDT)

10/31/2025

David D. Ambuehl Acting District Director California Department of Transportation District 4	Signature	Date

References

Bay Area Infrastructure Financing Authority. (2024). *BAIFA Resolution No. 52 – Bay Area Infrastructure Financing Authority (BAIFA) Express Lanes 10-Year Financial Plan and Reserves Policy.* Network and Operations Committee. Agenda Item 5a. Retrieved April 2025, from https://zh-tw.mtc.ca.gov/sites/default/files/meetings/attachments/5948/3a_24_0299_Summary_BAIFA_Reso_0052_EL_10_Yr_Financial_Plan_FY_2024_2033.pdf

California Department of Transportation. (2020a). *Transportation Analysis Framework. First Edition. Evaluating Transportation Impacts of State Highway System Projects.* Retrieved September 2020, from https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-09-10-1st-edition-taf-fnl-a11y.pdf

California Department of Transportation. (2020b). *Transportation Analysis under CEQA. First Edition*. Retrieved February 2022, from https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/sb-743/2020-09-10-1st-edition-tac-fnl-a11y.pdf

California Department of Transportation. (2022). *When are VMT Impacts from a Project Acceptable?* Retrieved November 2024, from https://dot.ca.gov/programs/esta/sb-743/resources/acceptable-impacts

California Department of Transportation. (2025). Transportation Analysis under CEQA. Second Edition. Retrieved October 3, 2025, from https://dot.ca.gov/-/media/dot-media/programs/sustainability/documents/vmt/202509-tac-2nd-edition-final-a11y.pdf

Fehr and Peers. (2020). *VMT Mitigation through Fees, Banks, and Exchanges. Understanding New Mitigation Approaches.* White Paper for Western Riverside Council of Governments. Retrieved April 2025, from https://www.fehrandpeers.com/wp-content/uploads/2020/04/VMT-Fees_Exchanges_Banks-White-Paper_Apr2020.pdf

HDR Engineering, Inc. (2022). *Vehicle-Miles of Travel Mitigation Methodology and Recommendation.*

Kittelson & Associates. (2022a). *MEMORANDUM: I-680 Northbound Express Lane Completion: Analysis of VMT Mitigation Effectiveness.* August.

Kittelson & Associates. (2022b). *MEMORANDUM: Innovate 680: Modeling of VMT Mitigation Assumptions – Updated Results.*

Kittelson & Associates. (2023). *I-680 Northbound Express Lane VMT Updates.*

Kittelson & Associates and DKS Associates. (2022). *I-680 Northbound Express Lane Completion Project Travel Forecast Report.*