TECHNICAL ADVISORY COMMITTEE

Wednesday, November 13, 2019
1:30 PM
VTA Conference Room B-106
3331 North First Street
San Jose, CA

AGENDA

COMMITTEE MISSION STATEMENT:

The VTA Technical Advisory Committee (TAC) provides in-depth analysis, technical expertise and timely recommendations to the VTA Board of Directors regarding projects, programs, funding and other policy matters while giving voice to and reconciling local and regional perspectives.

CALL TO ORDER

1. ROLL CALL
2. ORDERS OF THE DAY
3. PUBLIC PRESENTATIONS:

   This portion of the agenda is reserved for persons desiring to address the Committee on any matter not on the agenda. Speakers are limited to 2 minutes. The law does not permit Committee action or extended discussion on any item not on the agenda except under special circumstances. If Committee action is requested, the matter can be placed on a subsequent agenda. All statements that require a response will be referred to staff for reply in writing.

4. Receive Committee Staff Report. (Verbal Report) (Haywood)
   - New Transit Service Plan Implementation Status Update
5. Receive Chairperson's Report. (Verbal Report) (Cameron)
   - Capital Improvement Program (CIP)
   - Systems Operations & Management (SOM)
CONSENT AGENDA

7. ACTION ITEM - Approve the Regular Meeting Minutes of October 9, 2019.

8. ACTION ITEM - Recommend that the VTA Board of Directors adopt the 2019 VTA Congestion Management Program (CMP).

9. ACTION ITEM - Decommission the Land Use Transportation Integration Working Group of the Technical Advisory Committee to enable a staff-led, Member Agency coordination meeting.

10. ACTION ITEM - Recommend that the VTA Board of Directors adopt the fiscal years 2020 and 2021 budget modifications for the Program of 2016 Measure B projects and programs.

11. INFORMATION ITEM - Receive an update on 2016 Measure B Program activities.

REGULAR AGENDA

12. ACTION ITEM - Recommend that the VTA Board of Directors adopt the updated VTA Transit Oriented Development (TOD) Policy, as the successor to the current VTA Joint Development Policy.

13. ACTION ITEM - Recommend that the VTA Board of Directors approve the 2016 Measure B Innovative Transit Service Models Competitive Grant Program criteria.


15. INFORMATION ITEM - Receive the TAC Nomination Subcommittee's report on members expressing interest in serving as either chairperson or vice chairperson for 2020.

OTHER

16. Receive an update on MTC Activities and Initiatives. (Verbal Report) (MTC)

17. Receive an update on Caltrans Activities and Initiatives. (Verbal Report) (Caltrans)

18. Receive an update on SCVWD Activities and Initiatives. (Verbal Report) (SCVWD)

19. Review the TAC Committee Work Plan. (Haywood)

20. ANNOUNCEMENTS

21. ADJOURN
In accordance with the Americans with Disabilities Act (ADA) and Title VI of the Civil Rights Act of 1964, VTA will make reasonable arrangements to ensure meaningful access to its meetings for persons who have disabilities and for persons with limited English proficiency who need translation and interpretation services. Individuals requiring ADA accommodations should notify the Board Secretary’s Office at least 48-hours prior to the meeting. Individuals requiring language assistance should notify the Board Secretary’s Office at least 72-hours prior to the meeting. The Board Secretary may be contacted at (408) 321-5680 or board.secretary@vta.org or (408) 321-2330 (TTY only). VTA’s home page is www.vta.org or visit us on www.facebook.com/scvta. (408) 321-2300: 中文 / Español / 日本語 / 한국어 / tiếng Việt / Tagalog.

All reports for items on the open meeting agenda are available for review in the Board Secretary’s Office, 3331 North First Street, San Jose, California, (408) 321-5680, the Monday, Tuesday, and Wednesday prior to the meeting. This information is available on VTA’s website at http://www.vta.org and also at the meeting.
Technical Advisory Committee  
Wednesday, October 9, 2019

MINUTES

CALL TO ORDER

The Regular Meeting of the Technical Advisory Committee (TAC) was called to order at 1:32 p.m. by Chairperson Cameron in Conference Room B-106, Santa Clara Valley Transportation Authority (VTA), 3331 North First Street, San José, California.

1. ROLL CALL

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<th>Title</th>
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<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girum Awoke</td>
<td>Vice Chairperson</td>
<td>City of Gilroy</td>
<td>Present</td>
</tr>
<tr>
<td>Nichol Bowersox</td>
<td>Member</td>
<td>Town of Los Altos Hills</td>
<td>Absent</td>
</tr>
<tr>
<td>Dawn Cameron</td>
<td>Chairperson</td>
<td>City of Mountain View</td>
<td>Present</td>
</tr>
<tr>
<td>Todd Capurso</td>
<td>Member</td>
<td>City of Campbell</td>
<td>Present</td>
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<tr>
<td>Steve Chan</td>
<td>Alternate Member</td>
<td>City of Milpitas</td>
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<tr>
<td>John Cherbone</td>
<td>Member</td>
<td>City of Saratoga</td>
<td>Present</td>
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<tr>
<td>Scott Creer</td>
<td>Member</td>
<td>City of Morgan Hill</td>
<td>Absent</td>
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<tr>
<td>Steve Erickson</td>
<td>Member</td>
<td>City of Milpitas</td>
<td>Present</td>
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<tr>
<td>Harry Freitas</td>
<td>Member</td>
<td>County of Santa Clara</td>
<td>Absent</td>
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<tr>
<td>David Gittleson</td>
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<td>City of Morgan Hill</td>
<td>Absent</td>
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<tr>
<td>Zahir Gulzadah</td>
<td>Member</td>
<td>City of San José</td>
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<tr>
<td>Gary Heap</td>
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<td>City of Gilroy</td>
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<tr>
<td>Jessica Kahn</td>
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<td>City of Monte Sereno</td>
<td>Absent</td>
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<tr>
<td>Philip Kamhi</td>
<td>Member</td>
<td>City of Palo Alto</td>
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<tr>
<td>Helen Kim</td>
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<tr>
<td>Roger Lee</td>
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<tr>
<td>Michael Liw</td>
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<tr>
<td>Matt Morley</td>
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<tr>
<td>Barry Ng</td>
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<tr>
<td>Dennis Ng</td>
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<tr>
<td>Macedonio Nuñez</td>
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<tr>
<td>Amy Olay</td>
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<td>Lisa Petersen</td>
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<tr>
<td>Jim Sandoval</td>
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<tr>
<td>Carol Shariat</td>
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<td>City of Santa Clara</td>
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<tr>
<td>Sylvia Star-Lack</td>
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<td>David Stillman</td>
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<td>Lillian Tsang</td>
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<tr>
<td>Jessica Zenk</td>
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<tr>
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<tr>
<td>Nick Saleh</td>
<td>Ex-Officio Member</td>
<td>California Department of Transportation</td>
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<tr>
<td>Fariba Zohoury</td>
<td>Ex-Officio Alt. Member</td>
<td>California Department of Transportation</td>
<td>Present</td>
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<td>Pilar Lorenzana</td>
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<tr>
<td>Therese Trivedi</td>
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<td>Ngoc Nguyen</td>
<td>Ex-Officio Member</td>
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<tr>
<td>Chris Hakes</td>
<td>Ex-Officio Alt. Member</td>
<td>Santa Clara Valley Water District</td>
<td>Absent</td>
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2. **ORDERS OF THE DAY**

There were no Orders of the Day.

3. **PUBLIC PRESENTATIONS**

There were no Public Presentations.

4. **Committee Staff Report**

Marcella Rensi, Deputy Director of Grants & Fund Allocations and Staff Liaison, provided a report, highlighting the following: 1) actions taken at the October 3, 2019 VTA Board of Directors (Board) meeting; 2) VTA’s year-long safety campaign, “You Can’t Beat a Train,” in conjunction with National Rail Safety Month; 3) VTA’s Caltrain Santa Clara Station Pedestrian Underpass Project received its fifth award, the American Public Works Association’s Project of the Year Award, under the Transportation Category; and 4) announced Scott Haywood, Deputy Director, Transit Planning and Capital Development will be the new TAC Staff Liaison.

On order of Chairperson Cameron, and there being no objection, the Committee received the Committee Staff Report.

5. **Chairperson’s Report**

Chairperson Cameron reported the Board, on an 8 to 4 vote, approved the 2016 Measure B Bicycle/Pedestrian Capital Projects Competitive Grant Program Criteria and increased the Communities of Concern criteria from 5 to 10 points. She expressed appreciation to the TAC working groups’ efforts and announced the call for projects for the program is forthcoming.

6. **Reports from TAC Working Groups**

- **Capital Improvement Program (CIP) Working Group**

  Celeste Fiore, Transportation Planner, provided a brief report of the September 24, 2019, CIP Working Group meeting, highlighting the following: 1) Plan Bay Area 2050; 2) 2016 Measure B Innovative Transit Service Models Competitive Grant Program Draft Criteria; and 3) next scheduled meeting is October 22, 2019.

- **Systems Operations & Management (SOM) Working Group**

  There was no report.
CONSENT AGENDA

7. Regular Meeting Minutes of September 11, 2019

M/S/C (Kamhi/Capurso) to approve the Regular Meeting Minutes of September 11, 2019.


M/S/C (Kamhi/Capurso) to receive the Fiscal Year (FY) 2019 Annual Transit Operations Performance report.

RESULT: APPROVED – Agenda Items #7-8
MOVER: Philip Kamhi, Member
SECONDER: Todd Capurso, Member
AYES: Awoke, Cameron, Capurso, Cherbone, Erickson, Kamhi, Liw, Ng, Stillman, Zenk
NOES: None
ABSENT: Bowersox, Creer, Freitas, Kahn, Morley, Sandoval

REGULAR AGENDA


Michelle Oblena, Associate Management Analyst and Advisory Committee Coordinator, provided an overview of the election process.

M/S/C (Awoke/Zenk) to appoint a nomination subcommittee comprised of Members Capurso and Kamhi to identify Committee members interested in serving as the chairperson or vice chairperson for 2020.

RESULT: APPROVED – Agenda Items #9
MOVER: Girum Awoke, Vice Chairperson
SECONDER: Jessica Zenk, Member
AYES: Awoke, Cameron, Capurso, Cherbone, Erickson, Kamhi, Liw, Ng, Stillman, Zenk
NOES: None
ABSENT: Bowersox, Creer, Freitas, Kahn, Morley, Sandoval

10. 2016 Measure B Innovative Transit Service Models Competitive Grant Program Draft Criteria

Nicole He, Transportation Planner II - Grants & FA, provided a presentation on the 2016 Measure B Innovative Transit Service Models Competitive Grant Program criteria.
A robust discussion ensued on the program criteria, specifically on first/last mile distances.

M/S/C (Capurso/Stillman) on a vote of nine ayes to zero noes to one abstention to recommend that the VTA Board of Directors approve the 2016 Measure B Innovative Transit Service Models Competitive Grant Program criteria and further recommended staff to 1) clarify catchment area for first/last mile and 2) revisit the criteria after the first call for projects to determine if any adjustments should be made.

RESULT: APPROVED – Agenda Items #10
MOVER: Todd Capurso, Member
SECONDER: David Stillman, Alternate Member
AYES: Cameron, Capurso, Cherbone, Erickson, Kamhi, Liw, Ng, Stillman, Zenk
NOES: None
ABSTAIN: Awoke
ABSENT: Bowersox, Creer, Freitas, Kahn, Morley, Sandoval


On order of Chairperson Cameron, and there being no objection, the Committee received a status update on the VTP Highway Program Semi-Annual Report Ending June 30, 2019.

OTHER

12. Metropolitan Transportation Commission (MTC) Activities and Initiatives Update

Chairperson Cameron indicated Ex-Officio Member Lorenzana provided a written report regarding the Metropolitan Transportation Commission (MTC) activities and initiatives update.

13. Caltrans Activities and Initiatives Update

There was no Caltrans activities and initiatives update.

14. Santa Clara Valley Water District (SCVWD) Activities and Initiatives Update

There was no Santa Clara Valley Water District (SCVWD) activities and initiatives update.

15. TAC Committee Work Plan

Ms. Rensi provided an overview of the Committee Work Plan.

On order of Chairperson Cameron, and there being no objection, the Committee reviewed the TAC Committee Work Plan.
16. **ANNOUNCEMENTS**

There were no Announcements.

17. **ADJOURNMENT**

On order of Chairperson Cameron, and there being no objection, the meeting was adjourned at 2:43 p.m.

Respectfully submitted,

Jennifer Mena, Board Assistant
VTA Office of the Board Secretary
BOARD MEMORANDUM

TO: Santa Clara Valley Transportation Authority
   Technical Advisory Committee

THROUGH: General Manager, Nuria I. Fernandez

FROM: Director of Planning and Programming, Deborah Dagang

SUBJECT: 2019 CMP Document

Policy-Related Action: No
Government Code Section 84308 Applies: No

Action Item

Recommendation:
Recommend that the VTA Board of Directors adopt the 2019 VTA Congestion Management Program (CMP).

Background:
State law requires that urbanized counties biennially adopt a Congestion Management Program (CMP) containing specified elements. The intent of the CMP is to develop a comprehensive transportation improvement program among local jurisdictions that will improve multimodal transportation system performance, land use decision-making and air quality.

The Santa Clara Valley Transportation Authority (VTA), as the Congestion Management Agency (CMA) for Santa Clara County, is responsible for updating the CMP document every two years. The CMP is submitted to the Metropolitan Transportation Commission (MTC) where it is evaluated for consistency with MTC’s Regional Transportation Plan (RTP). Following MTC’s evaluation, the responsibility to implement the CMP rests with VTA and local jurisdictions.

The CMP is one of several interdependent plans that VTA crafts to address transportation improvements in Santa Clara County. The CMP, along with the Monitoring Report, the long-range transportation plan, the bike plan and others, provide a comprehensive vision and plan for the various elements of the transportation system.
DISCUSSION:

The 2019 CMP is comprised of nine program elements: 1) transportation system definition; 2) transportation analysis standards; 3) multimodal performance measures; 4) transportation demand management and trip reduction; 5) countywide transportation model and database; 6) land use impact analysis; 7) capital improvement program; 8) monitoring and conformance requirements; and 9) multimodal improvement plan requirements.

The CMP provides practical options for improving the performance of the county’s multimodal transportation system today and a framework for developing proactive and innovative planning options for the future. The CMP also serves as a short-term element of the countywide transportation plan, Valley Transportation Plan (VTP), by focusing on congestion management strategies that can be implemented within the short to mid-term.

The 2019 CMP update contains minor modifications from the previous document. It is anticipated that the 2021 update will contain significant changes due to the implementation of Senate Bill 743 that will likely influence monitoring and reporting methods, and strategies.

ALTERNATIVES:

VTA must adopt the plan per state CMP legislation; however, the Board may modify the contents of the document prior to adoption.

FISCAL IMPACT:

There is no fiscal impact as a result of this action.

Prepared by: John Sighamony
Memo No. 7136

ATTACHMENTS:

- 2019 CMP Document (PDF)
2019 CMP
2019 CONGESTION MANAGEMENT PROGRAM DOCUMENT

PREPARED BY THE SANTA CLARA VALLEY TRANSPORTATION AUTHORITY
THE CONGESTION MANAGEMENT AGENCY FOR SANTA CLARA COUNTY

NOVEMBER 2019
# 2019 Congestion Management Program

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EXECUTIVE SUMMARY

In accordance with California Statute, Government code 65088, Santa Clara County has established a Congestion Management Program (CMP). The intent of the CMP legislation is to develop a comprehensive transportation improvement program among local jurisdictions that will improve multimodal transportation system performance, land use decision-making and air quality.

The main requirements of the CMP statutes can be summarized as follows:

- Requires the designation of a Congestion Management Agency (CMA) in each urbanized county, to develop and update the CMP and monitor its progress over time.
- Sets up a performance review process, by mandating the designation of a network of transportation facilities that will be periodically monitored for congestion, and by requiring the designation of a level of service standard for roadways and performance measures for all modes of travel.
- Promotes the use of alternatives to the single-occupant automobile through trip reduction programs, land use / transportation integration strategies, and transportation demand management (TDM) measures.
- Promotes integration of decisions about land development, transportation investment and air quality by requiring a process to determine the impacts of local development decisions on the countywide transportation network.
- Requires a seven-year investment strategy, referred to as a Capital Improvement Program (CIP), to support the CMP goals. The CIP is updated biennially and links project eligibility for regional/state funding to the CMP.
- Requires a computerized travel model and uniform database for estimating future transportation needs and impacts.
- Encourages infill development in core areas and along major transit corridors.

The Santa Clara Valley Transit Authority (VTA), as the designated Congestion Management Agency, has prepared this 2019 Congestion Management Program in accordance with the requirements of the CMP legislation. The purpose of this document is to summarize the elements, policies and procedures of the VTA CMP.
WHAT’S NEW IN THE 2019 CMP

The 2019 update signifies an evolving role for the CMP in our region’s future. It summarizes the current VTA CMP, changes to the CMP over the past two years, as well as key areas that are likely to be addressed in the coming two years. The 2021 update is expected to have more significant changes due to the items noted below. The 2019 update is very minor in comparison. The following is a summary of key changes and additions in the CMP 2017:

• **Additional discussion of Senate Bill (SB) 743 implementation and relationship to the CMP auto LOS standard** – In keeping with the original intent of documenting SB 743 in the previous CMP Document, there are updates regarding the Office of Planning and Research (OPR) development of new criteria to evaluate transportation impacts under CEQA. The 2019 update identifies steps that VTA has taken in order to address possible changes implemented with the implementation of SB 743.

• **Updates to the status of key VTA transportation projects** – The CMP System Definition chapter (Chapter 2) includes updated descriptions of transportation projects VTA is leading or participating in, including the BART Silicon Valley extension, the 2019 New Transit Service Plan, the Caltrain Modernization Program, and the Silicon Valley Express Lanes Program.

• **Updated information about regional programs** – Chapter 7 contains updated discussions of regional planning efforts led by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC), such as Plan Bay Area and the PDA Investment & Growth Strategy.

Key areas that the CMP will address with Member Agency input over the next two years include:

• **Implementation of SB 743 Legislation** – As noted above, the Governor’s Office of Planning and Research (OPR) is currently updating the CEQA Guidelines to remove auto LOS analysis and require vehicle miles traveled (VMT) analysis in the CEQA analysis of transportation impacts and mitigation measures. SB 743 did not directly call for changes to the Transportation Analysis Standards Element and Multimodal Performance Measures Element of the CMP, however it is expected that these elements will be updated for compatibility with the new CEQA Guidelines. VTA will continue to monitor potential legislation affecting CMPs and intends to update the CMP, with input from the VTA Board, Committees, and Working Groups, over the coming years.
ELEMENTS OF THE VTA CMP

CMPs must contain five elements: a system definition and traffic Level of Service (LOS) standard element, a multimodal performance measures element, a transportation demand management and trip reduction element, a land use impact analysis element, and a CIP. In addition to these five elements, other actions, such as the development of a countywide transportation model and Multimodal Improvement Plans, are necessary to meet the requirements of the Statute.

In response to the statutory requirements and the Strategic Plan’s vision, VTA has chosen to define its CMP in terms of nine elements that logically structure the program. Each of the nine elements corresponds to a chapter of the CMP and is briefly summarized below:

1. **System Definition Element** — The CMP Transportation System consists of a roadway network, a transit network, and a bicycle network.

The System Definition Element is linked to other elements in the CMP because all projects proposed for the CIP must be on or benefit the CMP Transportation System. Additionally, roadways included in the CMP Roadway Network will be monitored for conformance with the CMP level of service standard.

The designated CMP Roadway Network includes state highways, county expressways and principal arterials. The adopted definition for principal arterials is: roadways that connect with the freeway and/or county expressway system and meet one of the following criteria: (1) state highway; (2) six-lane facility; or (3) non-residential arterial with average daily traffic of 30,000 vehicles per day.

While the CMP Statutes do not expressly require adoption of a transit network, it does require the inclusion of specified transit system performance measures. Therefore, the CMP includes a Transit Network consisting of rail service and selected bus service. Performance measurements have been established for VTA Transit Service and are identified in the Transit Sustainability Policy and its complementary document, the Service Design Guidelines. The guidelines establish ridership thresholds and ensure that transit service operates as efficiently as possible.

One of the goals of VTA’s CMP is to provide for safe and convenient bicycling throughout the county for various types of trips, such as work, school, errands, and recreation by focusing improvements on the Cross County Bicycle Corridors (CCBC). The CCBC is a network of 24 routes for bike travel through the county that are identified in the Santa Clara Countywide Bicycle Plan, adopted by the VTA Board of Directors in 2008.
2. Transportation Analysis Standards Element — For the purpose of congestion monitoring and management, the CMP statute requires that CMAs develop a minimum automobile level of service (auto LOS) standard for CMP Network roadways. Auto LOS describes the operations of roadway segments or intersections in terms of vehicle speed, volume and capacity, and traffic delay. Auto LOS evaluates operations for all common motor vehicle types, including automobiles, light and heavy trucks, and motorcycles. In addition, although congestion affects transit vehicles operating in general purpose lanes, transit operations are affected by additional factors and are typically evaluated separately from auto LOS.

The Transportation Analysis Standards Element contains the adopted auto LOS standard for the CMP Roadway Network and describes the methodologies for evaluating auto LOS. The auto LOS standard is important because CMP Roadway Network facilities must operate within the adopted standard or the Member Agency responsible for the facility must prepare a Multimodal Improvement Plan for that facility.

In addition, Member Agencies must monitor auto LOS using adopted methodologies. A comprehensive description of the auto LOS standard is presented in the CMP Technical Standards and Procedures: Traffic Level of Service Analysis Guidelines and is available upon request.

3. Multimodal Performance Measures Element — The purpose of the Multimodal Performance Measures Element is to define specific transportation system performance measures that can help evaluate how well Santa Clara County’s transportation system serves the traveling public. Twelve measures are described in the Element. These measures can be used in a variety of analyses. Some may be used in the development of the countywide long-range transportation plan, some may be used in the CMP monitoring process, some may be used in analyses of the impacts of specific development projects, and some may be used for more targeted efforts such as corridor studies, transit or roadway capital projects.

4. Trip Reduction and Transportation Demand Management (TDM) Element — This element defines and describes TDM programs and lists funding sources Member Agencies can access to implement these projects. Some programs that would be recommended as part of the TDM element include parking management and pricing, roadway pricing, commute alternatives, and cash subsidies. The Community Design and Transportation (CDT) Program encourage the development and continuation of successful trip reduction efforts through incentives and partnerships.

5. Countywide Transportation Model and Database Element — This element contains a description of the countywide transportation model required by the CMP Statute. The Statute requires that the countywide transportation model be consistent with the regional
transportation model developed by MTC with data provided by ABAG. The countywide transportation model is used to help evaluate cumulative transportation impacts of local land use decisions on the CMP System. Because of the model’s significance in the overall CMP, it is extremely important that the model accurately reflect existing land use and transportation conditions.

The CMP also requires local models to be consistent with the countywide transportation model. A comprehensive description of these consistency requirements is presented in the CMP Technical Standards: Local Transportation Model Consistency Guidelines.

6. Land Use Impact Analysis Element — This element describes the procedures used to analyze the transportation impacts of local land use decisions on the transportation system, and the programs designed to influence policy development to better support a multimodal transportation system. The Land Use Impact Analysis Program links local land use decisions with broader transportation and air quality impact analysis. The VTA CMP includes the Development Review Program which provides a framework for VTA comment on development projects and plans and for quarterly reporting to the Board on Member Agency development decisions.

VTA has developed and adopted Transportation Impact Analysis (TIA) Guidelines to ensure that all projects are analyzed uniformly and consistently. Comprehensive descriptions of the TIA Guidelines are included in the CMP Technical Standards. The TIA Guidelines offers VTA the opportunity to encourage the use of multimodal performance measures and make the CMP better reflect the goals of SB 375, the regional and countywide long range transportation plans, and local General Plans and policies.

Through a multi-year process, the CDT program was developed in partnership with VTA Member Agencies and the community. The CDT is primarily an advocacy and resource program, providing tools and resources to Member Agencies intended to influence changes in policy, administration, and urban design that encourage well-designed, high-amenity development in cores areas, around transit station areas, and along major transportation corridors. In addition, the CDT Program has given out planning and capital grants to Member Agencies that are developing plans and projects in accordance with the CDT guidelines and planning initiatives.

7. Capital Improvement Program Element — The CIP is a list of capital projects designed to improve the transportation system and air quality in Santa Clara County. The CIP consists of a list of transportation facility improvements that is submitted to MTC for inclusion in the Regional Transportation Improvement Program (RTIP), the State Transportation Improvement Program (STIP) and the Federal Transportation Improvement Program (TIP). The CIP includes projects from the following funding categories: Regional Improvement Program (RIP) and Interregional Improvement Program (IIP), Surface Transportation Program (STP) and Congestion...
Mitigation/Air Quality Program (CMAQ) (federal), Transportation Alternatives funds (federal), and the Traffic Congestion Relief fund (state). In addition, projects funded by the 1996 Measure B sales tax, the 2000 and 2008 Measure A sales taxes, the 2006 Proposition 1B bond fund, the 2008 Proposition 1A (High Speed Rail) bond fund, Express Lanes revenue, the 2010 Measure B Vehicle Registration Fee and the Transportation Fund for Clean Air are included in the CIP since they affect the county’s transportation system.

The Capital Improvement Program is developed in accordance with the statewide and regionally adopted multimodal criteria for project selection. The regional criteria emphasize maintaining and sustaining the existing transportation system, improving its efficiency and effectiveness through congestion relief, safety improvements and consideration of freight movement, expanding the system, and accounting for external impacts on land use and air quality. The CMP Statute requires that the CIP maintain or improve the performance of the multimodal system for the movement of people and goods, mitigate the impacts of land use decisions on the regional transportation system, and conform to air quality mitigation measures included in state and federal air quality plans.

8. Monitoring and Conformance Element — The CMP Statute requires biennial monitoring to determine Member Agency conformance with all elements of the CMP. The Monitoring and Conformance Element describes the monitoring process used in Santa Clara County. VTA monitors freeway LOS and land use decisions on an annual basis, and all other elements of the Monitoring Program, including CMP intersection LOS on a biennial basis.

Once Member Agencies have submitted their monitoring data, VTA will evaluate it to determine changes to and impacts on the CMP System and to ensure that each Member Agency is in conformance with the CMP. If Member Agencies fail to meet CMP standards or implement CMP requirements, they could be found in nonconformance with the CMP and risk forfeiting gas tax subventions from the state. A description of the requirements and methodologies used in the Monitoring and Conformance Program is available in the Monitoring and Conformance Requirements.

9. Multimodal Improvement Plan Element — This element summarizes the process for the preparation and approval of Multimodal Improvement Plans. Beginning with the 2013 CMP, VTA uses the term “Multimodal Improvement Plan” for “Deficiency Plan” as defined by state legislation, to highlight the range of multimodal solutions available to Member Agencies that have a traffic LOS deficiency.

Multimodal Improvement Plans must be developed for facilities that are not operating within the adopted traffic LOS standard. Multimodal Improvement Plans may be developed by VTA Member Agencies and must be approved by VTA Board of Directors. Multimodal Improvement
Plans must include a set of improvements, programs, and actions for the CMP facility that measurably improve multimodal performance and contribute to a significant improvement in air quality. CMP system facilities that are covered under an approved Multimodal Improvement Plan, or a previously approved Deficiency Plan, may operate below the traffic LOS standard as long as the plan is being implemented.

REGIONAL CONFORMANCE

To meet the requirements of CMP legislation, VTA’s CMP was developed to conform to the Regional Transportation Plan, as well as the MTC’s Guidance for 2017 Congestion Management Programs. The CMP also conforms to the transportation-related provisions of the federal and state California Clean Air Acts, and the regional Clean Air Plan.

MEMBER AGENCY RESPONSIBILITIES

The Congestion Management Program is a cooperative effort between VTA and the CMP Member Agencies – the 15 cities in the county, Santa Clara County, and VTA. Table E.1 outlines the element requirements and major responsibilities of VTA and Member Agencies in complying with the CMP.

THE DEVELOPMENT OF THE 2019 CONGESTION MANAGEMENT PROGRAM

This CMP was developed guidance from state and regional agencies. The policies contained in this document were initially developed by VTA with input from working groups of the Technical Advisory Committee. Since most elements of the CMP are designed to be implemented locally by Member Agencies, local input throughout the policy development process is crucial to the success of the Congestion Management Program.

After receiving Member Agency and public input, the VTA Board of Directors is responsible for making all policy decisions and for approving the final CMP.

DOCUMENT STRUCTURE & ORGANIZATION

The purpose of the document is to give the reader a comprehensive knowledge of the elements and goals of the VTA CMP. The CMP is organized into nine chapters: the CMP system definition and a chapter describing each element of the CMP. Table ES.1 presents a summary of each element. A number of appendices providing additional information are included at the back of this document. Appendix A provides a glossary of key terms, Appendix I includes the full text of the CMP Statute and related Statutes, and the remaining appendices provide additional technical or descriptive information.
In addition, VTA has compiled a set of documents entitled CMP Technical Standards and Procedures that contains all the technical requirements and guidelines that Member Agencies must follow to comply with the CMP. The Technical Standards and Procedures contain the following documents: Requirements for Deficiency Plans, Transportation Impact Analysis Guidelines, Local Transportation Model Consistency Guidelines, Traffic Level of Service Analysis Guidelines, and Monitoring and Conformance Requirements.
<table>
<thead>
<tr>
<th>CMP Element</th>
<th>Requirement</th>
<th>Timing</th>
<th>Responsible Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation Analysis Standards Element</td>
<td>1) Monitor and submit report on the level of service on CMP roadway network intersections using CMP software and procedures.</td>
<td>Dec 1</td>
<td>Member Agencies</td>
</tr>
<tr>
<td></td>
<td>2) Monitor performance of CMP rural highways and freeways</td>
<td>Dec 1</td>
<td>VTA</td>
</tr>
<tr>
<td>Multimodal Performance Measures Element</td>
<td>Collect available transportation performance measurement data for use in land use analysis, deficiency plans and the CIP.</td>
<td>Ongoing</td>
<td>VTA</td>
</tr>
<tr>
<td>Transportation Demand Management and Trip Reduction Element</td>
<td>No current requirements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation Model and Database Element</td>
<td>1) Certify that the CMP model is consistent with the regional model</td>
<td>Biennially</td>
<td>MTC</td>
</tr>
<tr>
<td></td>
<td>2) Certify that Member Agency models are consistent with the CMP model</td>
<td>As Needed</td>
<td>VTA and Member Agencies</td>
</tr>
<tr>
<td>Land Use Impact Analysis Element</td>
<td>1) Prepare a Transportation Impact Analysis (TIA) for projects that generate 100 or more peak hour trips and submit to the CMP according to TIA Guidelines schedule</td>
<td>Ongoing</td>
<td>Member Agencies</td>
</tr>
<tr>
<td></td>
<td>2) Submit relevant conditions of approval to VTA for projects generating TIAs</td>
<td>Ongoing</td>
<td>Member Agencies</td>
</tr>
<tr>
<td></td>
<td>3) Prepare quarterly report on VTA comments and local agency adopted conditions for VTA Board, CMPP and PAC, TAC, CAC, and BAC</td>
<td>Ongoing</td>
<td>VTA</td>
</tr>
<tr>
<td></td>
<td>4) Prepare and submit land use monitoring data to the CMP on all land use projects approved from July 1 to June 30 of the previous year</td>
<td>Oct 1</td>
<td>Member Agencies</td>
</tr>
<tr>
<td>Capital Improvement Program Element</td>
<td>Develop a list of projects intended to mirror projects in the Regional Transportation Plan, maintain or improve the level of service on the designated system, and to maintain transit performance standards</td>
<td>Biennially</td>
<td>Member Agencies with VTA</td>
</tr>
<tr>
<td>Monitoring and Conformance Element</td>
<td>Outline the requirements and procedures established for conducting annual auto LOS and land use monitoring efforts. Support the Transportation Analysis Standards and Land Use Impact Analysis Elements</td>
<td>Dec 1</td>
<td>Member Agencies and VTA</td>
</tr>
<tr>
<td>Multimodal Improvement Plan Element</td>
<td>1) Prepare Deficiency Plans for facilities that violate CMP traffic LOS standards or that are project to violate LOS standards using the adopted Deficiency Plan Requirements.</td>
<td>As Needed</td>
<td>All Affected Member Agencies</td>
</tr>
<tr>
<td></td>
<td>2) Submit Deficiency Plan Implementation Status Report as part of annual monitoring.</td>
<td>Dec 1</td>
<td>Member Agencies with Deficiency Plans</td>
</tr>
</tbody>
</table>
CHAPTER 1 | VTA

This chapter describes VTA as an agency as well as its mission, vision, and core values.

BACKGROUND

While operating Santa Clara County’s bus and light rail system is an important part of what we do, it’s certainly not the only aspect of our work—and that’s a good thing. VTA is a unique organization, so our approach to work must be unique as well. We have wide-ranging authority, including transit development and operations, congestion management, funding, highway design and construction, real estate and transit-oriented development, and bicycle and pedestrian planning. We are truly a multimodal transportation solutions agency, which gives us many great opportunities that other agencies don’t have. Our structure is unique in that Bay Area, and to better support our local interests and needs, as well as enhance regional partnerships, we will continue to strive for greater regional independence.

VTA is a collection of more than 2,000 dedicated employees working together to provide transportation throughout Silicon Valley. We provide solutions that move people to their jobs, recreational activities, appointments, home, and more, allowing us to meet the varied needs of a diverse population. From highways to bikeways to safer routes to school, the people of VTA work together to make Silicon Valley residents and workers have the ability to get where they need to go.

MISSION

The Mission offers the reason for being. It answers the questions: “Why does this organization exist; what do we do?” To offer services that will add value to the community, this question must be answered clearly and memorably.

For VTA, the answer is: to provide “solutions that move you.” Our role is to get people moving and keep the moving.

This answer is broad enough to encompass all the work that VTA does—transit service, congestion management, highway construction, and bicycle and pedestrian facilities—but narrow enough to leave no doubt or confusion about who we are.

VISION

The Vision is where we see ourselves in the future. This answers the question “What are you aiming to achieve?” To help the community understand what they can expect from the organization, now and down the line, this question also must be answered clearly.
For VTA, the answer is: “To innovate the way Silicon Valley moves.” This means we plan to position ourselves now and in the future as leaders in the effort to help move the residents of Silicon Valley, an area known for innovation where people expect the newest, cutting edge options to be readily available. Rather than wait for others to develop those options, we will do the innovating: we will create, collaborate and lead, offering options that meet the evolving needs of people around the county.

**CORE VALUES**

**Safety** — We plan and deliver services in a way that promotes the health and safety of our employees and the public.

**Integrity** — We conduct our business in an ethical, honest, and transparent manner.

**Quality** — We ensure that the services we deliver, and projects that we build, are well designed and maintained to preserve the investment that has been made.

**Sustainability** — We operate our services and design our projects to minimize the negative impacts on our environment, in a way that can be maintained over time. Additionally, we operate as a sustainable organization by reducing our carbon footprint.

**Diversity** — We value, respect, and serve the unique needs of our community.

**Accountability** — We are stewards of the natural resources and transportation tax revenues of the County, take responsibility for our actions, and honestly report our successes and challenges to stakeholders and the public.

**PARTNERS**

Local jurisdictions hold land use authority, our transportation partner agencies help us make the connections between diverse transit systems, and state and federal agencies set regulations and standards that we must meet, while also provide funding.

We also need to work with community stakeholders and customers to understand the best solutions for a given community. And we need to work with our employees to understand and implement the exciting new ideas that will help further establish VTA as an authority in the transportation industry.

**CONGESTION MANAGEMENT PROGRAM**

Within this document VTA outlines its responsibility as a Congestion Management Agency (CMA) and how it fulfills those responsibilities. Furthermore, the sections above illustrate VTA’s
vision in a broader context as a mobility solutions provider. As VTA seeks to reduce congestion at a regional scale through a multimodal approach within a Congestion Management Program (CMP) the ideals outlined above and VTA’s duty as a CMA coalesce.

The chapters and information that follows focuses on the CMP statute requirements and how VTA is meeting those requirements. However, this is always to be viewed within the context of VTA as a multimodal transportation solutions provider delivering solutions that keep Silicon Valley moving.

**CONGESTION MANAGEMENT PROGRAM AND OTHER VTA DOCUMENTS**

This document is similar in many ways to the other documents that VTA produces. For example, VTA develops the Annual Monitoring and Conformance Report, the Valley Transportation Plan, and the Countywide Bicycle Plan. Each of the documents aims to showcase the delivery of projects and programs that will benefit our Member Agencies. Apart from the statutes that require VTA as an agency to develop strategies to address congestion, the work VTA uses its supporting documents to monitor and address transportation needs following our mission and vision.
CHAPTER 2 | CMP TRANSPORTATION SYSTEM DEFINITION

This chapter describes the Congestion Management Program (CMP) Transportation System. The CMP System consists of a roadway network, a transit network, and a bicycle network.

BACKGROUND

In 1990, the State of California enacted legislation to create Congestion Management Agencies (CMAs) in urbanized counties, following voter approval of Proposition 111. Each CMA is responsible for establishing a Congestion Management Program (CMP), envisioned as a comprehensive multimodal approach to solve transportation problems and reduce congestion at the regional scale. In contrast to the previous strategy of continually expanding roadway capacity, the CMP was designed to provide increased and more efficient transit services, increased efficiency of the existing roadway system, reduced traffic demand, and an improved land-use decision making process.

Beginning in 1991, with the enactment of the landmark Intermodal Surface Transportation Efficiency Act (ISTEA), federal transportation funding programs have also encouraged a more coordinated, regional, multimodal approach to transportation planning. ISTEA provisions allowed state and metropolitan planning organizations to take a broader view of the transportation system and its performance. Like Proposition 111, ISTEA shifted a major portion of transportation planning and priority setting from the state to regional agencies, CMAs, and local governments. This overarching philosophy has carried forward to subsequent federal transportation funding bills, including the most recent bill, FAST Act (Fixing America’s Surface Transportation Act).

With the adoption of Plan Bay Area in July 2013, ten performance targets guide transportation planning in the Bay Area. These include required targets related to climate protection and adequate housing and voluntary targets related to healthy and safe communities, open space and agricultural preservation, equitable access, economic vitality, and transportation system effectiveness.

The state of California also has adopted three legislative mandates to guide the development of transportation analyses, plans and strategies. These bills are summarized below:

- **AB 32 (Nunez) California Global Warming Solutions Act of 2006.** This bill requires the California Air Resources Board to adopt regulations to require the reporting and verification of Statewide greenhouse gas emissions and to monitor and enforce compliance with this program.
SB 375 (Steinberg) Transportation Planning: Travel Demand Models; Sustainable Communities Strategy; Environmental Review, 2008. SB 375 instructs the California Air Resources Board to set regional greenhouse gas emissions reduction targets from passenger vehicles. The Metropolitan Planning Organization for each region must then develop a “Sustainable Communities Strategy” (SCS), as part of its regional transportation plan, integrating transportation, land use and housing policies to plan for achievement of the emissions target for their region. Plan Bay Area includes the first Sustainable Communities Strategy for the Bay Area, as well as the 2040 Regional Transportation Plan.

SB 743 (Steinberg) Environmental quality: transit oriented infill projects, judicial review streamlining for environmental leadership development projects, and entertainment and sports center in the City of Sacramento, 2013. Senate Bill (SB) 743, approved by the California legislature in September 2013, includes changes to the California Environmental Quality Act (CEQA) and CMP law related to the analysis of transportation impacts. Most significantly, the bill directs the Governor’s Office of Planning and Research (OPR) to develop alternative metrics to the use of vehicular “level of service” (LOS) for evaluating transportation impacts for purposes of CEQA. The state has selected Vehicle Miles Traveled (VMT) as the most appropriate new metric, and in December 2018 the state finalized updates to the CEQA Guidelines to implement SB 743, providing a phase-in period through July 1, 2020 for Lead Agencies to adopt VMT as their new metric. While the change in CEQA practice does not necessarily affect CMP analysis which is based on separate state legislation, the changes resulting from SB 743 may also encourage agencies like VTA to look further at the performance measures in their CMPs. This issue is discussed further in Chapter 3.

CONGESTION MANAGEMENT PROGRAMS

Propositions 111 and 108 together increased funding for California’s transportation system by billions of dollars. With this new funding came the requirement that urbanized counties create or designate a CMA that is responsible for preparing and implementing a Congestion Management Program (CMP) every two years. An additional gas tax was created to fund transportation improvements and CMA activities. The majority of the funds are transferred from the CMA to Cities and the County through gas tax subventions, but Member Agencies must be found in conformance with the CMP to receive these subventions.

Although the primary focus of the congestion management program was originally envisioned as reducing congestion and thus improving mobility for persons and freight, the requirements of the CMP recognize the inextricable links between transportation, land use, and air quality. Over time, CMPs in the Bay Area have evolved to emphasize an overall reduction in single-
occupant vehicle trips and increase in pedestrian, bicycle and transit mode share in addition to managing congestion. Moreover, the statute acknowledges that these policy issues are not only functionally interrelated, but jurisdictionally interrelated as well. Accordingly, the statute requires cities and counties to work together to find cooperative solutions to these multi-jurisdictional problems. By operating as a “bridge” between local agencies and the regional and state levels of government, CMAs play a key role in overcoming fragmented planning and effectively integrating transportation and land use planning at the county level.

The CMP pursues the interrelated goals of managing congestion, reducing single-occupant vehicle trips and improving alternative modes through a combination of capital roadway, transit, bicycle and pedestrian improvements, which are designed to maintain the existing transportation system where possible, and only add new travel lanes where road-widening is the only solution available to improve the transportation network. In addition, the CMP is intended to improve land use planning, develop strategies to reduce traffic demand, and when necessary, establish Multimodal Improvement Plans\(^1\) to address deficiencies according to CMP standards. By addressing these congestion, transportation demand, land use and transportation decision-making issues early on, larger problems that could result in more expensive and less effective solutions may be avoided.

The CMP benefits the local governments, employers, businesses, developers, environmentalists and labor unions in the region. The CMP gives local governments the ability to establish a rational transportation funding process with clear priorities that makes transportation funding more reliable and brings it one step closer to home. A seven-year Capital Improvement Program (CIP) was established to give employers the confidence that local transportation facilities will be maintained and improved as needed. Businesses are assured that transportation investments will contribute to the efficient movement of freight throughout the region, which will improve the economic climate of the county. The CMP creates a “level playing field” that ensures all new development projects in the county are evaluated equally and equitably. On the environmental side, the CMP evaluates individual and cumulative transportation, land use, and air quality impacts due to new development projects. And lastly, the CMP maximizes local, state, and federal transportation dollars to create new construction jobs that will ultimately improve mobility.

The establishment of CMAs, in conjunction with changes in State and Federal transportation funding procedures, shifted decision-making from the State to the regional and local levels. Not only does this mean more money is available for local planning projects, but it also means that

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1 VTA will use the term “Multimodal Improvement Plan” for “Deficiency Plan” as defined by state legislation, to highlight the range of multimodal solutions available to Member Agencies that have a traffic LOS deficiency. See Chapter 10 for more details.
local governments have more flexibility and autonomy to spend this money on projects that benefit their local communities. It also gives citizens an opportunity to provide meaningful input in the decision-making process.

**VTA CONGESTION MANAGEMENT PROGRAM**

The CMA Statute states that all urbanized counties may create or designate a CMA by resolution of the County Board of Supervisors and a majority of City Councils representing a majority of the population in the incorporated county. Santa Clara County was the first county in the state to form a CMA, and the only county in the state to form a CMA prior to the passage of Proposition 111 in 1990. This accomplishment was possible only after months of collaborative effort by a joint committee of elected officials who were members of the County Transportation Commission and the Golden Triangle Task Force.

The committee met weekly from December 1989 to May 1990 to develop a consensus on the purpose, structure, and goals of the new agency. Their vision for the CMA - “A United Proposal for a Congestion Management Agency for Santa Clara County” - was submitted to all city councils and the Board of Supervisors for ratification. By July 1990, the proposal had been ratified by all 15 cities and a majority of the population in Santa Clara County. As a result, the Santa Clara County CMA was formed. In August 1991 the CMA Board subsequently drafted and adopted a joint powers agreement, which was ratified by the 15 cities/towns and the County Board of Supervisors.

In December 1994, the fifteen cities/towns and the County of Santa Clara passed resolutions designating the Santa Clara County Transit District as the CMA for Santa Clara County. On January 1, 1995 the two agencies formed what was to become the Valley Transportation Authority (VTA). Staff within VTA’s Planning & Program Development Division now performs the functions previously performed by the CMA staff.

The VTA Board of Directors consists of twelve voting members, two ex-officio (non-voting) members, and five alternates. Ten of the twelve voting members are local elected officials who represent Santa Clara County’s fifteen cities. The other two members are county supervisors who represent the County of Santa Clara.

VTA’s Board of Directors is advised by five primary advisory committees: a Policy Advisory Committee (PAC), a Technical Advisory Committee (TAC), a Citizens Advisory Committee (CAC), a Bicycle and Pedestrian Advisory Committee (BPAC), and a Committee for Transit Accessibility (CTA). The PAC consists of one elected official from each of the County’s 15 cities and one County Supervisor. The TAC consists of one management level staff member from each of the 15 cities and the County (generally the public works or planning director). The CAC consists of
seventeen members representing CMP Member Agency cities, specified business and labor groups, and specified environmental and community interest groups. The BPAC consists of sixteen members, one from each city and the County, representing local bicycle and pedestrian advisory committees or individuals interested in bicycle and pedestrian issues. The CTA consists of nine representatives of Human Services Organizations, and twelve appointed individuals with disabilities.

Over the past several years, VTA has worked with its Member Agencies to develop policies, programs, and methodologies to promote multimodal transportation planning and land use/transportation integration. A representation of these efforts and how they relate to the CMP is provided in Figure 2.1, below. Some of the initiatives have included:

- Developing a Transit Sustainability Policy (TSP) that sets the policy framework for monitoring existing transit service and implementing new transit service in Santa Clara County;
- Working with local agencies to plan for infill development around existing transit stations through the Joint Development Program;
- Working with local agencies to update the CMP Deficiency Plan Requirements and Transportation Impact Analysis (TIA) Guidelines;
- Promoting the principles and design criteria included in the Community Design and Transportation (CDT) Manual of Best Practices for Integrating Transportation and Land Use;
- Working with ABAG and MTC to encourage infill development around the core transit network through the Priority Development Area (PDA) Investment & Growth Strategy.
CMP ROADWAY NETWORK
The CMP Statutes require that all state highways and principal arterials be part of the CMP roadway network. The statute also specifies that roadways can be added to the CMP roadway network in the future. However, once a roadway is added to the network it may not be removed.

Figure 2.2 and Figure 2.3 show the CMP roadway network and intersections, respectively. The network consists of four types of facilities: freeways, county expressways, urban arterials, and rural highways. The roadway network was adopted as part of the 1991 CMP. Since 1991 improvements have been made to the network, including:

- In 1995, SR 85 was completed, Highway 87 was extended from Almaden Expressway to SR 85, and Highway 237 was upgraded to full freeway status from Highway 101 in Mountain View to Highway 880.
- In 1998, Wolfe Road between Stevens Creek Boulevard and I-280 in Cupertino was added to the network.
- Between 2005 and 2007 carpool lanes were added on Highway 87.
- In 2012 the SR 237/I-880 connector express lane opened.
- In 2013 carpool lanes were added to I-880 between SR 237 and US 101.

Appendix B lists the roadway segments that are part of the roadway network. The CMP roadway network is monitored regularly to ensure that the roadway network conforms to the CMP auto level of service standard.

The definition of principal arterial is left to individual CMAs. VTA defines urban arterials as roadways that connect with the freeway and/or county expressway system and principal arterials. To be classified as a principal arterial the road must meet one of the following criteria:

- State highway;
- Six-lane facility; or
- Non-residential arterial with average daily traffic (ADT) of 30,000 vehicles per day or greater.
FIGURE 2.2 | CMP ROADWAY NETWORK
FIGURE 2.3 CMP INTERSECTIONS
The CMP statute does not require adoption of a transit network, but does emphasize the importance of transit service. Furthermore, legislation enacted in 1994 requires that CMPs include multimodal transportation system performance measures which incorporate “measures established for the frequency and routing of public transit, and for the coordination of transit service provided by separate operators.” (Gov. Code 65089 (b) (2)). As a result, the VTA CMP contains a transit network. The CMP transit network consists of rail transit service (Caltrain, Light Rail, and future BART service) and bus service (grid routes and regional routes). The CMP transit network is illustrated in Figure 2.4. Appendix C lists the routes that are part of the transit network.

**EXISTING TRANSIT SERVICE**

Santa Clara County is currently served by two major transit operators: the Santa Clara Valley Transportation Authority (VTA) and Caltrain. VTA operates public transit buses, light rail, shuttles, and paratransit within Santa Clara County, as well as providing transit service to major regional destinations and transfer centers in adjoining counties. There are a number of other operators that provide some service within Santa Clara County. Brief descriptions of the different existing services and operators are provided below.

**VTA Light Rail** — VTA currently operates a 42-mile light rail system linking South San Jose, East San Jose, Downtown San Jose, North San Jose, Campbell, Santa Clara, Milpitas, Sunnyvale, and Mountain View.

**2019 New Transit Service Plan** — This 2019 New Transit Service Plan, adopted in May 2019, is a modification of the Board-adopted 2017 Next Network transit service plan. In addition to the plan’s original goals of better connecting VTA transit with the Milpitas and Berryessa BART stations, increasing overall system ridership, and improving VTA’s farebox recovery rate, the new plan adds three new parameters set by the Board of Directors:

1. Reduce the plan’s overall service level equal to today’s service level (the Next Network plan would have incurred a $14.7M increase in annual net operating costs over today).
2. Adjust the network’s ridership/coverage balance to 90% ridership and 10% coverage.
3. Minimize service cuts in South County.

Later this year, VTA staff will begin the large task of turning a high-level service plan into service ready to hit the streets on day one of BART service in late 2019. After implementation, staff will monitor the new transit network and will make changes in a continuous cycle of iterative improvements. The Transit Performance Monitoring Program is a new VTA program to monitor transit performance continually, regularly report performance to the public through VTA’s Open
Data portal, conduct quarterly performance discussions at VTA’s committees, then develop and implement service changes to iteratively improve the network.

**Dumbarton Express Bus (DB)** — VTA is a member of a consortium including Alameda-Contra Costa Transit District (AC Transit), BART and Union City Transit. This group is responsible for funding and overseeing the operation of the Dumbarton Bridge (DB) weekday express bus services, DB and DB1. These express buses link the Union City BART station in Alameda County to the Palo Alto Transit Center, Stanford University and the Stanford Research Park.
FIGURE 2.4 | CMP TRANSIT NETWORK
**Highway 17 Express Bus Service** — VTA and the Santa Cruz Metropolitan Transit District (SCMTD) jointly fund and oversee the operation of the Highway 17 Express bus service between the cities of Santa Cruz and Scotts Valley, and downtown San Jose.

**Caltrain** — Caltrain operates 77 miles of commuter rail service between San Francisco and San Jose throughout the day and extended rail service from San Francisco to Gilroy during commute periods. The service is operated under the authority of the Peninsula Corridor Joint Powers Board (JPB) consisting of VTA, SamTrans and San Francisco MUNI. SamTrans acts as the operator of the service on behalf of the JPB. On an average weekday, Caltrain operates 92 trains - including 22 Baby Bullet trains, which provide limited stop service along the corridor.

**SamTrans** — San Mateo County Transit District (SamTrans) provides bus service in San Mateo County, including connections at the Palo Alto Transit Center in Santa Clara County.

**AC Transit Service** — Alameda-Contra Costa Transit District (AC Transit) provides bus service within Alameda County and provides connections to VTA transit facilities in Milpitas, providing connections to VTA’s LRT and local buses at the Great Mall Transit Center.

**Altamont Corridor Express (ACE)** — The Altamont Corridor Express rail service is overseen by a Joint Powers Authority created by the Alameda County Congestion Management Agency, VTA, and the San Joaquin Regional Rail Commission. ACE service extends approximately 85 miles from Southern San Joaquin County through the Tri-Valley area and Alameda County to Santa Clara County’s Great America, Santa Clara University and San Jose Diridon stations. The service operates four round trips daily during the weekday peak commute periods. The trains operate in the peak direction only, originating in Stockton during the morning peak period and leaving San Jose Diridon Station during the evening peak period. Eight ACE Shuttle routes, operated by VTA, provide “last mile” connections from the Great America station to destinations throughout northern Santa Clara County.

**Capitol Corridor Intercity Rail Service** — Capitol Corridor is 170 mile commuter rail service that links Sacramento, Oakland and San Jose (Santa Clara/Great America and San Jose Diridon). The service is managed by BART and VTA is a member of the Joint Powers Board, which oversees the service. The Capitol Corridor intercity rail service provides seven daily round trips from Sacramento via Oakland to San Jose and additional daily round trips from Sacramento to Oakland with connecting motorcoach bus service to San Jose.

**PLANNED TRANSIT IMPROVEMENTS**
There are a number of transit improvements and capital projects planned within Santa Clara County in the coming years. The following is a description of several planned improvements. This section is not meant to be an exhaustive list, but rather to highlight key projects in the planning and/or design stages.
BART Silicon Valley – VTA has partnered with BART to develop an extension of the rail system from Fremont to Santa Clara via Milpitas and San Jose. The planned 16.1-mile extension of the BART system would operate along the existing railroad alignment south of the BART Warm Springs Station in Fremont, continue in a tunnel through downtown San Jose, and end near the Santa Clara Caltrain Station. The BART extension from Fremont to Warm Springs is now complete. The extension from Warm Springs to Santa Clara County will be delivered in two phases. The first phase of the extension, from Warm Springs to Berryessa, broke ground in 2012 and is expected to be complete by 2018. VTA is currently beginning the environmental analysis of the second section in the BART to Silicon Valley project, a 6-mile link from Berryessa to Downtown San Jose, Diridon Station, and the Santa Clara station near the Mineta San Jose International Airport. This section includes 5 miles of tunnel construction.

FAST Transit Program – The Fast Transit Program is an agency-wide effort to make transit faster, more reliable, and ultimately more useful for Santa Clara County travelers. The program will help identify where and how transit priority, streamlining, and policy changes can benefit service throughout the system, with a focus on VTA’s most frequent routes. Such improvements can help make transit an attractive mode choice for people to travel to work, school, and daily needs, and can also help Santa Clara County cities meet their mobility goals all while helping to reduce VTA’s operating costs.

The Program has three major components:

- The development and adoption of a transit speed policy that represents VTA’s commitment to work internally and with local jurisdictions to improve transit speed and reliability
- A comprehensive examination of the causes of VTA’s declining speeds and reliability culminating in a report summarizing problems and recommendations
- An endorsed program of context-sensitive short- and long-term speed improvement projects and locations to help advance project development

Bus Rapid Transit — Bus Rapid Transit (BRT) refers to a combination of capital and service design improvements, designed to provide faster, more efficient service than standard bus transit. VTA implements BRT projects in phases, with the first Rapid phase focusing on service design improvements such as simple/direct routing, limited stops, frequent headways, generous hours of operation, and specialized vehicles. These service design improvements are paired with transit signal priority measures, queue-jump lanes, and other small-scale corridor infrastructure improvements as necessary to increase the route’s speed as a Rapid service. The second BRT phase involves more significant corridor infrastructure improvements, particularly dedicated transit lanes and upgraded stations, to prioritize transit in the corridor. VTA’s Rapid 522 is VTA’s first implementation of Rapid service on El Camino Real, The Alameda, Santa Clara Street and King Road, between Palo Alto and the
Eastridge Shopping Center in San Jose. The route also features a BRT segment between Downtown San Jose and the Eastridge Transit Center with a dedicated lane segment and upgraded stations.\(^2\)

Building on the success of Rapid 522, VTA implemented two new Rapid services in mid-2018, both connecting to the Berryessa BART station in North San Jose. Rapid 523 provides a fast and frequent connection between Berryessa BART and downtown San Jose, Stevens Creek Boulevard, De Anza College, downtown Sunnyvale, and Lockheed Martin Transit Center. Rapid 500 provides fast and frequent service between Berryessa BART, downtown San Jose, and San Jose Diridon Station.

**Caltrain Modernization Program** – This project includes the electrification of the existing Caltrain corridor between the Transbay Terminal in San Francisco and Tamien Station in San Jose, upgrades to Caltrain’s signaling system, and the replacement of Caltrain’s diesel trains with high-performance electric trains. These improvements will support a blended High Speed Rail/Electrified Caltrain rail system on the existing two track configuration. These investments will realize early implementation of modernized electrified Caltrain service by 2020, reduce noise and air pollution, minimize impacts on surrounding communities, reduce project costs, and expedite the implementation of High Speed Rail.

**High Speed Rail** - VTA has also coordinated with the State High Speed Rail Authority (HSRA) on their efforts to develop high-speed rail service from Southern California to San Francisco. VTA’s stake in High Speed Rail (HSR) comes in several areas:

- VTA will work with the HSRA, the JPB and local cities on planning and engineering studies defining capital improvements in the alignment and an ultimate corridor “footprint”.

- VTA will work with the JPB and local cities on specific HSR projects, such as grade separations, impacting local road systems and the rail alignment.

- VTA will work with cities on station area plans and land use issues.

**CMP BICYCLE NETWORK**

Bicycles play a significant role in the transportation system. They provide direct transportation as well as access to transit services. Therefore, while not a requirement of the CMP Statute, VTA has included a bicycle network as part of its CMP Transportation System.

VTA is has updated the Santa Clara Countywide Bicycle Plan (CBP), in 2018. The plan establishes a network of Cross County Bikeway Corridors (CCBC) that will provide continuous, complete bike connections across the county. The plan also identifies locations where new and improved bicycle connections are needed across freeways, rail lines, and creeks. Lastly, the plan identifies ways to

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\(^2\) This service is termed ‘BRT 1’ in VTA’s *Service Design Guidelines*.

\(^3\) This network of Frequent routes will be implemented in mid-2018 filling the role of VTA’s existing Core Network.
make it easier for people to use their bicycle with transit, including bicycle access to major transit stops, bicycle parking at stops, and bicycle accommodations on board. The plan was most recently updated in 2008. Since then, there have been advances in bicycle infrastructure design, advances in planning for bicyclists, and a cultural shift toward bicycling. More people and a greater diversity of people are interested in bicycling, and they want bikeways that are physically separated from cars. VTA now has the capacity to model how building new bikeways will affect travel patterns, congestion, and greenhouse gas emissions.

The 2018 CCBCs are shown in Figure 2.5.

The Countywide Bicycle Plan forms the basis for the financially constrained list of bicycle projects considered for Valley Transportation Plan 2040 and future iterations of Plan Bay Area, where they are captured in a Program Area that allows for flexibility in delivering projects. Additionally, projects within the Countywide Bicycle Plan are eligible to compete for 2016 Measure B Bicycle and Pedestrian funds.
FIGURE 2.5 | CROSS COUNTY BICYCLE CORRIDORS
CHAPTER 3 | TRANSPORTATION ANALYSIS STANDARDS ELEMENT

This chapter describes VTA’s Congestion Management Program (CMP) transportation analysis standards. It includes the following five sections:

- CMP Transportation Analysis Standards – Current Practice and Potential Future Updates
- CMP Auto Level of Service Standards
- CMP Auto Level of Service Evaluation Techniques
- CMP Roadway Network Level of Service
- Compliance and Conformance

CMP TRANSPORTATION ANALYSIS STANDARDS – CURRENT PRACTICE AND FUTURE UPDATES

BACKGROUND

For the purpose of congestion monitoring and management, the CMP statute requires that CMAs develop a minimum auto level of service (LOS) standard for CMP Network roadways. Government Code Section 65089 (b) states that the CMP shall contain “Traffic level of service standards established for a system of highways and roadways designated by the agency.” In addition, the CMP statute states that “In no case shall the LOS standards established be below the level of service E or the current level, whichever is farthest from level of service A.” Thus, the statutes also allow for CMP System facilities that were operating at LOS F during the baseline year to remain at LOS F.

The CMP statute was amended in 1994 (Assembly Bill (AB) 1963, Katz) to require that the CMP include multimodal transportation system performance measures. Although VTA satisfied this requirement by establishing CMP Performance Measures for Santa Clara County (see Chapter 3), these performance measures are informational in nature and are not used to determine Member Agency conformance with the CMP in the Monitoring or Land Use Impact Analysis Programs. The CMP auto LOS standard is the only transportation analysis standard used to determine conformance with the CMP.

For the past several decades, the CMP auto LOS standard has been used by Member Agencies to analyze transportation impacts and mitigation measures for CMP facilities both when preparing a Transportation Impact Analysis (TIA) report for CMP purposes and when analyzing environmental impacts of a project per the California Environmental Quality Act (CEQA). Until recently, the CEQA Guidelines established a direct link between the CMP auto LOS standard and CEQA by including the following question in the CEQA Appendix G Checklist:
“Would the project... b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?”

The relationship between the CMP and CEQA is now changing as a result of the implementation of Senate Bill 743, as noted in the next section.

SENATE BILL (SB) 743 – CHANGES TO TRANSPORTATION ANALYSIS IN CEQA

In September 2013, the California legislature enacted Senate Bill (SB) 743, directing the Governor’s Office of Planning and Research (OPR) to develop new significance criteria to evaluate transportation impacts under CEQA. Notably, the bill states that once the new criteria are adopted, “Automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment” in the locations where the new criteria will apply (21099 (b) (2)). SB 743 gave OPR discretion to determine the specific metric(s) to replace LOS, based on the criteria that the new metric(s) “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses” (21099 (b) (1)). In addition, the bill required that the new metric(s) apply within Transit Priority Areas1 but allowed OPR to apply the new metrics in other locations as well. OPR released a Preliminary Evaluation of Alternative Methods of Transportation Analysis in December 2013, which included an initial discussion of various alternative metrics such as vehicle miles traveled (VMT), automobile trips generated, multimodal level of service, fuel use, motor vehicle hours traveled, and a presumption of less than significant impacts based on location.

In August 2014, OPR released a Preliminary Discussion Draft of Updates to the CEQA Guidelines Implementing Senate Bill 743. This document indicated that OPR intended to replace LOS with VMT in the evaluation of transportation impacts, and that the new criteria would apply statewide. Specifically, the document suggested the following transportation impact thresholds:

- Land use development projects that result in vehicle miles traveled greater than the regional average for that land use type may indicate a significant impact. Projects within ½ mile of frequent transit service, projects that reduce area-wide VMT, and land use plans that are consistent with the applicable Sustainable Communities Strategy may be presumed to have less than significant impacts.

- Transportation projects that include new general purpose highway or arterial lanes, and other projects that induce vehicle travel, may have significant impacts. Projects to primarily

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1 See Appendix A – Glossary for definition.
improve safety or operations and multimodal (transit, bicycle or pedestrian) improvements may be presumed to have less than significant impacts.

The *Preliminary Discussion Draft* also included guidelines for the analysis of safety impacts, mitigation measures and alternatives. Following the 2014 Preliminary Discussion Draft, OPR released a revised proposal for updates to the CEQA Guidelines in January 2016, and OPR continued to engage with agencies and stakeholders around the state in the following years.

In December 2018, the California Natural Resources Agency finalized revised CEQA Guidelines including changes to implement SB 743, and OPR released an updated *Technical Advisory on Evaluating Transportation Impacts in CEQA*. At this time, the Natural Resources Agency confirmed that the deadline for transitioning to VMT for CEQA analysis will be July 1, 2020. Until that time, Lead Agencies have the discretion to include a VMT analysis as part of their CEQA documentation. As of Fall 2019, several cities around the state (including Pasadena, San Francisco, Oakland, San Jose and Los Angeles) have changed their CEQA metrics and practices pursuant to SB 743, and other cities are in the process.

Recognizing the magnitude of this change to transportation analysis, VTA staff has been engaged early and often with SB 743 implementation at VTA and across Santa Clara County. VTA staff brought informational presentations on SB 743 to the Systems Operations & Management (SOM) and Land Use / Transportation Integration (LUTI) Working Groups, VTA Advisory Committees and the Congestion Management Program and Planning Committee (CMPP) in early 2014, and has brought updates to VTA Working Groups and Board Committees periodically since then. VTA staff has also participated in Bay Area CTA staff-level working groups on SB 743 and as well as discussions on SB 743 other groups such as the Bay Area CTA Directors and Bay Area CTA Planning Directors meetings. In addition, VTA staff has engaged the Governor’s Office of Planning and Research (OPR) directly through phone calls and submitted comment letters at several points during the state’s rule-making SB 743 process, regarding implementation of VMT as a new metric, threshold-setting considerations, the relationship of CEQA and CMP analysis, and impacts on transit, bicycle and pedestrian facilities.

As of Fall 2019, VTA is continuing to work with its Member Agencies to provide technical assistance on the SB 743 implementation process. This includes facilitating an LOS-to-VMT Ad Hoc Working Group for VTA and Member Agency staff, providing estimates and maps of Baseline VMT across the county from the VTA travel demand model, and developing a countywide VMT Estimation Tool for Land Use Projects. VTA staff is continuing to monitor the implementation of SB 743 and will consider potential changes to the CMP and Technical Guidelines as appropriate.

**POTENTIAL UPDATES TO THE CMP IN RESPONSE TO SB 743**
As noted above, historically the CEQA Guidelines have included an explicit linkage between the CMP auto LOS standard and CEQA within the Appendix G Checklist. Under the revised CEQA Guidelines issued in December 2018, the Appendix G Checklist includes the revised question:

Would the project…Conflict with an applicable program, plan, ordinance or policy establishing measures of effectiveness for the performance of addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

A CMP can be considered an applicable program establishing a measure of effectiveness per the above question, so a linkage between CMP compliance and CEQA remains in the updated CEQA Guidelines. This linkage would focus on aspects of the CMP other than auto LOS, such as any established measures for transit, bicycle or pedestrian performance, since a congestion-based measure like the CMP auto LOS standard can no longer be considered an environmental impact under CEQA. Ultimately, it would be desirable for the transportation analysis required by the CMP to be compatible with the transportation analysis required by CEQA.

During discussions with Member Agencies, Bay Area CTAs and OPR, the issue has been raised that a CEQA requirement to analyze and mitigate VMT impacts could conflict with the requirement in the CMP to maintain certain transportation facilities at LOS E. For example, a VMT threshold in CEQA leads to the goal to reduce the overall amount of vehicle travel generated by the project, which could incentivize developers to locate projects in infill locations within walking distance of existing jobs, homes, retail, services and transportation facilities. However, this strategy could result in additional traffic on CMP facilities already at LOS E or F, which could result in significant impacts according to CMP criteria. Similarly, to mitigate a facility back to compliance with the CMP LOS standard could require adding auto capacity in the form of additional turn lanes or through lanes, but such mitigation measures could also induce additional vehicle travel and degrade conditions for pedestrian, bicycle and transit modes, potentially increasing VMT.

In February 2015, legislation (AB 1098) was introduced that would amend California Statutes related to the CMP for consistency with the new CEQA metrics under development per SB 743. However, this bill did not advance through the legislative process. VTA will continue to monitor this issue and other legislation affecting the CMP that may be introduced in the future.

Regardless of the timing of amendments to the CMP statutes, VTA staff intends for the CMP to be compatible with the transportation analysis requirements of CEQA and support the stated goals of SB 743 to “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” VTA staff has engaged in discussions with Member Agency staff about the possibility of updating the performance measures in the VTA CMP to better align with the direction of CEQA under SB 743. In April 2019, VTA held a workshop with VTA and Member Agency staff to discuss CMP performance measures. While there was some
interest expressed among participants in strengthening the emphasis on VMT and multimodal measures in the VTA CMP, the general consensus was not to make any major changes to the VTA CMP performance measures until after SB 743 is implemented in 2020.

The CMP auto LOS standard described in the remainder of this chapter should be considered one piece of the overall CMP toolkit for evaluating land use developments and transportation capital projects along with the Multimodal Performance Measures (Chapter 4), Transportation Demand Management (Chapter 5), Land Use and Transportation Integration efforts (Chapter 5), and Multimodal Improvement Plans (Chapter 10). Altogether, these elements of the CMP are designed to support a sustainable multimodal transportation system for Santa Clara County.

**CMP AUTO LEVEL OF SERVICE STANDARDS**

Auto Level of Service (LOS) describes the operations of roadway segments or intersections in terms of vehicle speed, volume and capacity, freedom of movement, and traffic delay. LOS measurements are given by letter designations, from A (least congested) to F (most congested).

The LOS standards for Santa Clara County were established in October 1991. The minimum level of service is LOS E, except for facilities grandfathered in at LOS F. The performance of the CMP facilities is monitored at a minimum every two years. If the minimum level of service cannot be maintained on a CMP roadway, Member Agencies must develop Multimodal Improvement Plans to remain in conformance with the CMP. For complete descriptions of the LOS grading scales for the CMP Roadway Network refer to Appendix E.

The LOS of each CMP facility was originally evaluated in the base year of 1991. Baseline trips were defined as the total number of vehicles trips for existing year 1991 traffic plus new trips generated from all approved projects. The baseline auto LOS is the point of comparison for determining conformance with the CMP auto LOS standard. Approved project traffic was included in the 1991 baseline to ensure that all traffic which would be added to CMP roadways was included in the analysis and to ensure that development projects that had received final land use approval would not be penalized by the CMP. Existing 1991 data and any anticipated project traffic data were provided by Member Agencies.

The VTA CMP auto LOS standards consist of the following:

1. The CMP auto LOS standard is LOS E. This standard applies across the CMP roadway network, including freeways, urban arterials, County Expressways, and rural highways.

2. Facilities that have a baseline (1991) LOS F for the AM or PM peak period can remain at LOS F. These facilities are listed in Tables 3.1 and 3.2 and shown in Figures 3.1, 3.2, and 3.3 below. It is important to note these facilities are not exempt from California Environmental Quality Act
(CEQA) and National Environmental Protection Act (NEPA) review requirements when applicable.

3. If the auto LOS for a CMP facility is currently LOS F and the facility is not included in an approved Multimodal Improvement Plan, then a project is said to impact the facility if it will cause changes to traffic conditions greater than the following thresholds:

- **Intersections at LOS F**: addition of the project traffic increases the average control delay for critical movements by four (4) seconds or more, and project traffic increases the critical volume-to-capacity ratio (v/c) by 0.01 or more.

- **Freeway Segments at LOS F**: the number of vehicle trips added by the project is more than one percent of the freeway capacity (the calculation shall be for each direction of travel).

- **Rural Highway at LOS F**: the number of vehicle trips added by the project is more than one percent of the rural highway capacity.

It is important to emphasize that local land use and mitigation decisions can be made based on a stricter LOS standard if established by a Member Agency.
FIGURE 3.1 | FREEWAY SEGMENTS OPERATING AT LOS F IN THE 1991 BASELINE AM PEAK PERIOD
FIGURE 3.2 | FREEWAY SEGMENTS OPERATING AT LOS F IN THE 1991 BASELINE PM PEAK PERIOD
### TABLE 3.1 | FREEWAY SEGMENTS AT LOS F IN EITHER 1991 BASELINE PERIOD

<table>
<thead>
<tr>
<th>CMP ID</th>
<th>Facility</th>
<th>Dir</th>
<th>From/To</th>
<th>From/To</th>
<th>Miles</th>
<th>LOS F</th>
</tr>
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<td></td>
<td></td>
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<td>PM</td>
</tr>
<tr>
<td>1</td>
<td>I-880</td>
<td>NB</td>
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<td>Dixon Landing</td>
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<td>2</td>
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<td>Great Mall Pkwy</td>
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<td>Montague Expwy</td>
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<tr>
<td>5</td>
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<tr>
<td>6</td>
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<td>N. 1st ST</td>
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</tr>
<tr>
<td>7</td>
<td>I-880</td>
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<td>SR 87</td>
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<td>Stevens Cr</td>
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<td>Saratoga</td>
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<td>SR 17</td>
<td>NB</td>
<td>Bear Creek</td>
<td>Saratoga</td>
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</tr>
<tr>
<td>39</td>
<td>I-680</td>
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<td>King Rd</td>
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</tr>
<tr>
<td>40</td>
<td>I-680</td>
<td>SB</td>
<td>Capitol Expwy</td>
<td>King Rd</td>
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<td>X</td>
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<td>77</td>
<td>SR 237</td>
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<td>McCarthy Blvd</td>
<td>I-880</td>
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<td>X</td>
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<tr>
<td>79</td>
<td>SR 237</td>
<td>EB</td>
<td>N. First St</td>
<td>Zanker Rd</td>
<td>1.61</td>
<td>X</td>
</tr>
<tr>
<td>81</td>
<td>SR 237</td>
<td>EB</td>
<td>Lawrence Expwy</td>
<td>Great America Pkwy</td>
<td>1.27</td>
<td>X</td>
</tr>
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</table>
FIGURE 3.3 | INTERSECTIONS OPERATING AT LOS F IN THE 1991 BASELINE PM PEAK PERIOD
### TABLE 3.2 | INTERSECTIONS OPERATING AT LOS F IN THE 1991 BASELINE PM PEAK PERIOD

<table>
<thead>
<tr>
<th>ID</th>
<th>CMP System Roadway</th>
<th>Cross Street</th>
<th>Location</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>5802</td>
<td>Hwy 17 (SB)</td>
<td>Hamilton Av.</td>
<td>Campbell</td>
<td>State</td>
</tr>
<tr>
<td>3108</td>
<td>Hwy 17 (SB)</td>
<td>San Tomas Expwy./Camden Av.</td>
<td>Campbell</td>
<td>SC County</td>
</tr>
<tr>
<td>3101</td>
<td>San Tomas Exp.</td>
<td>Campbell Av.</td>
<td>Campbell</td>
<td>SC County</td>
</tr>
<tr>
<td>104</td>
<td>Hwy 280 NB Ramps</td>
<td>De Anza Blvd.</td>
<td>Cupertino</td>
<td>Cupertino</td>
</tr>
<tr>
<td>213</td>
<td>Calaveras Blvd. (Rte. 237)</td>
<td>Milpitas Blvd.</td>
<td>Milpitas</td>
<td>Milpitas</td>
</tr>
<tr>
<td>5720</td>
<td>Montague Exp.</td>
<td>Capitol Av.</td>
<td>Milpitas</td>
<td>SC County</td>
</tr>
<tr>
<td>5723</td>
<td>Montague Exp.</td>
<td>Milpitas Blvd.</td>
<td>Milpitas</td>
<td>SC County</td>
</tr>
<tr>
<td>5625</td>
<td>Montague Exp.</td>
<td>Main St./Old Oakland Rd.</td>
<td>Milpitas/San Jose</td>
<td>SC County</td>
</tr>
<tr>
<td>5801</td>
<td>Montague Exp.</td>
<td>McCarthy Blvd./O'Toole Av.</td>
<td>Milpitas/San Jose</td>
<td>SC County</td>
</tr>
<tr>
<td>5640</td>
<td>Montague Exp.</td>
<td>Trade Zone Blvd./McCandless</td>
<td>Milpitas/San Jose</td>
<td>SC County</td>
</tr>
<tr>
<td>3031</td>
<td>Page Mill/Oregon Exp.</td>
<td>Foothill Expwy.</td>
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<td>SC County</td>
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<tr>
<td>5405</td>
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</tr>
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<td>Hwy 237</td>
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</tr>
<tr>
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<td>Great America Pkwy (South)</td>
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<td>State</td>
</tr>
<tr>
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<td>Zanker Rd. (North)</td>
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<td>State</td>
</tr>
<tr>
<td>5809</td>
<td>Hwy 237</td>
<td>Zanker Rd. (South)</td>
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<td>First St.</td>
<td>San Jose</td>
<td>SC County</td>
</tr>
<tr>
<td>5734</td>
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<td>Trimble Rd.</td>
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<td>SC County</td>
</tr>
<tr>
<td>3027</td>
<td>Monterey Hwy. (Rte. 82)</td>
<td>Curtner Av.</td>
<td>San Jose</td>
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</tr>
</tbody>
</table>
CMP AUTO LEVEL OF SERVICE EVALUATION TECHNIQUES

In addition to adopting a Level of Service standard, the CMP statute requires that a uniform methodology be used to evaluate LOS on CMP System roadways. As part of the 1991 CMP development, the Technical Advisory Committee evaluated various LOS techniques and recommended that the Santa Clara County CMA use methodologies described in the 1985 Highway Capacity Manual (HCM) to evaluate LOS. The current VTA Traffic LOS Analysis Guidelines (2003) are based on the 2000 HCM.

The most recent edition of the HCM (2010) contains minor modifications to the methodologies for calculating automobile LOS on roadways, and also introduces new methodologies for evaluating level of service for non-auto modes including pedestrians, bicycles and transit. From 2011 to 2013, VTA staff engaged in an extensive program of testing, education and outreach on the new multimodal performance measures included in HCM 2010. Based on these activities as well as input from Member Agency staff, VTA staff concluded that the measures are not ready to be required for all CMP analysis, but could provide valuable information in certain cases, such as for development projects that propose changes to street geometry. For more information on HCM 2010 Multimodal Level of Service and other multimodal performance measures, see Chapter 4.

The CMP has two methods for monitoring the level of service of the CMP roadway network:

1. The CMP Monitoring and Conformance Report — A periodic study that collects level of service data on CMP roadways as well as land use approval data by Member Agencies.

2. Transportation Impact Analysis Requirement — The CMP requires cities and the County to prepare a Transportation Impact Analysis (TIA) that documents the impacts new developments would have on the CMP roadway network (as well as other parts of the transportation system) and the transportation improvements required to mitigate these impacts.
CMP LEVEL OF SERVICE METHODOLOGIES

The following section outlines specific auto LOS methodologies used in VTA’s CMP. The Traffic LOS Analysis Guidelines of the CMP Technical Standards and Procedures include more technical information on auto LOS measurement.

**Urban Arterials** — The 2000 HCM intersection analysis operations methodology, which is based on Average Control Delay, is used to monitor auto LOS on urban arterials (this includes expressways and principal arterials).

**Freeway Segments** — Freeway segments are evaluated based on the procedures of the 2000 HCM. Beginning in June 2003, VTA adopted density as the standard for monitoring traffic conditions and traffic impacts due to new developments. Prior to 2003, the CMP used travel speed as the criteria for monitoring traffic conditions.

**Rural Highways** — Procedures described in Chapter 20 of the 2000 HCM are used to measure the percent time-spent following and average travel speed, with appropriate inputs for peak hour and peak 15 minute traffic volumes, the percentage split between the two directions of traffic, the percentage of trucks in the traffic flow, and the type of terrain.

**CMP LOS CONFORMANCE EXCLUSIONS**

The CMP legislation excludes certain types of traffic and situations from the determination of conformance with CMP traffic LOS standards (California Government Code Section 65089.4 (f), provided in Appendix J of this document). Exclusions can include traffic caused by interregional travel, construction, ramp metering, traffic signal coordination, and traffic generated by certain types of land use development. The VTA CMP Traffic Level of Service Analysis Guidelines contains complete information on how each of these exclusions is to be addressed in a TIA.

While the traffic problems caused by these situations are technically exempt under statute, local jurisdictions should try to develop solutions for congested roadway facilities to improve traffic conditions on the CMP System. VTA will assist Member Agencies in the effort. In addition, it is important to note that although these projects or situations are exempt from CMP standards, these exemptions do not necessarily apply to the CEQA process.

**CMP ROADWAY NETWORK LEVEL OF SERVICE**

The CMP Monitoring and Conformance Report summarizes the Level of Service for the CMP Roadway network. The 2016 CMP Monitoring and Conformance Report, the most recent edition released as of fall 2017, includes data from the baseline year (1991) through the year 2016. Auto
Level of Service data is presented for the three types of roadway facilities included in the CMP roadway network: arterial roadways (CMP intersection data), freeways, and rural highways.

A brief summary of the results from the 2018 report is provided below.

**ARTERIAL ROADWAYS (CMP INTERSECTIONS)**

Auto LOS data was most recently collected and evaluated by VTA and Member Agencies in the fall of 2018. The data collection for 2018 analyzed all 252 CMP intersections. In 2018, there were three CMP intersections that operated below the CMP level of service standard. Two of these intersections, Page Mill Road/Oregon Expressway and Foothill Expressway and Montague Expressway at McCarthy Boulevard/O’Toole Avenue, are exempt from meeting CMP conformance requirements due to operating at LOS F under 1991 baseline conditions. One intersection, Central Expressway & De La Cruz Boulevard, has been operating at LOS F since 1996, prior to which it was operating at LOS E.

Table 3.3 shows the percentage breakdown by level of service for all CMP intersections since 1991. The detailed listing of LOS levels at each CMP intersection is included in the 2018 Conformance and Monitoring Report.

**TABLE 3.3 | CMP INTERSECTION LEVEL OF SERVICE BY PERCENTAGE, 1991 – 2018**

<table>
<thead>
<tr>
<th>LOS</th>
<th>'91</th>
<th>'92</th>
<th>'94</th>
<th>'96</th>
<th>'97</th>
<th>'98</th>
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<td>1%</td>
<td>1%</td>
<td>2%</td>
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<td>4%</td>
<td>3%</td>
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<td>4%</td>
<td>4%</td>
<td>4%</td>
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<td>5%</td>
</tr>
<tr>
<td>B</td>
<td>19%</td>
<td>17%</td>
<td>18%</td>
<td>17%</td>
<td>19%</td>
<td>19%</td>
<td>18%</td>
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<tr>
<td>D</td>
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<td>45%</td>
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<tr>
<td>E</td>
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<td>15%</td>
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</tr>
<tr>
<td>F</td>
<td>17%</td>
<td>11%</td>
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<td>1%</td>
<td>1%</td>
<td>3%</td>
<td>3%</td>
<td>1%</td>
</tr>
</tbody>
</table>

**FREeways**

Auto LOS data was most recently collected and evaluated in the fall of 2018. In 2018, there were 96 and 117 directional miles operated at LOS F during the AM and PM peak periods, respectively, without consideration of the CMP exemption. 44% and 51% of the total directional miles in the county observed LOS E or worse during AM and PM peak period, respectively. In comparison with 2017 CMP monitoring, PM peak period experienced more noticeable deterioration in LOS, since 41 miles (13% of total network) has fallen to LOS D or worse.
Figures 3.4 and 3.5 show the auto LOS on the freeway system in 2018 for the AM and PM Peak Periods, respectively. The detailed listing of LOS levels for each freeway segment is included in the 2018 Conformance and Monitoring Report.

RURAL HIGHWAYS
Traffic counts were conducted at the 12 rural highway locations during the fall of 2018. All 12 rural highways operated at LOS E or better in 2016. Traffic volumes in 2018 are generally lower at the 12 locations overall by 3% compared to 2016. Nine of the twelve segments operate at LOS C or better during the peak hour. The three segments that operated below LOS D include State Route 9 south of Big Basin Way operates at LOS E, State Route 25 south of Bloomfield Avenue operates at LOS E, and State Route 156 south of State Route 152 operates at LOS D. For further details on rural highway LOS, refer to the 2018 CMP Monitoring and Conformance Report.

COMPLIANCE AND CONFORMANCE
To be in conformance with the VTA Congestion Management Program, Member Agencies are required to monitor and submit a report on the level of service on CMP intersections within their jurisdiction biennially. Intersections LOS must be calculated using software and procedures that are compliant with CMP adopted standards. Beginning with the 2012 Monitoring cycle, VTA conducts the monitoring and LOS analysis for CMP intersections on behalf of the Member Agencies.

VTA is responsible for monitoring the performance of CMP intersections, freeways and rural highways. VTA must also determine consistency with the LOS standards for the entire CMP roadway network. If a roadway segment is not conforming to the LOS standards based on the monitoring process, the affected local jurisdiction will be notified, and may elect to remedy the LOS problem or prepare a Multimodal Improvement Plan.
FIGURE 3.4 | 2018 FREEWAY MIXED FLOW LEVEL OF SERVICE IN THE AM PEAK PERIOD
FIGURE 3.5 2018 | 2018 FREEWAY MIXED FLOW LEVEL OF SERVICE IN THE PM PEAK PERIOD
CHAPTER 4 | MULTIMODAL PERFORMANCE MEASURES ELEMENT

This chapter presents the CMP Multimodal Performance Measures Element. The CMP statute was amended in 1994 (Assembly Bill (AB) 1963, Katz: Chapter 1146, Stats 1994) to require that the CMP include multimodal transportation system performance measures.

This chapter is divided into the following sections:

• Background
• Development of Multimodal Performance Measures
• VTA CMP Multimodal Performance Measures
• Use of Multimodal Measures in CMP Elements
• Compliance and Conformance

BACKGROUND

How a problem is defined often leads to how it is solved; and how a problem is defined is frequently a function of its measurement. Transportation problems are traditionally defined in terms of congestion at specific locations (measured in terms of auto level of service—or LOS), and traffic solutions are typically developed to reduce congestion at these specific locations to improve auto LOS.

However, solutions that improve auto LOS may simply shift congestion to another location, not necessarily improving the operation of the overall transportation system. Therefore, while traffic delay on a single roadway may be reduced, overall travel times may not be significantly affected. Over-reliance on auto LOS as a measure of congestion can lead to ineffective choices in capital improvement programs or land use decisions, and can contribute to sprawl or have other unintended consequences. Similarly, solutions designed to improve auto LOS may adversely impact pedestrian and bicycle travel, for example by widening streets and crossing distances or by eliminating bike lanes at the intersection approach to provide a right-turn only lane. Focusing exclusively on auto LOS may also negatively impact transit, for instance by leading to intersection signal timing that heavily prioritizes automobile throughput at the expense of transit vehicle movement. These problems illustrate that Santa Clara County cannot build its way out of congested conditions. Instead, a balanced program of improvements beyond typical physical infrastructure – such as changes to land use development policies and pricing policies that discourage reliance on single-occupant vehicles – is needed to address transportation issues in the coming years.
The Multimodal Improvement Plan process (see Chapter 10) recognizes the inability of facility-based LOS evaluation to measure the performance of the overall transportation system and recognizes the need for implementing alternative actions in solving transportation problems. Performance measures are important tools in addressing transportation problems and developing alternative transportation solutions because they provide an indication of how well the transportation system serves the traveling public and contributes to economic development, environmental sustainability and quality of life. If multimodal transportation solutions are envisioned, then multimodal performance measures are essential analytic tools.

The 1994 amendment to the CMP statute (AB 1963) requires that the CMP include multimodal transportation system performance measures, and that these be used to develop the performance element described in Section 65089 of the statute, which was amended to include a multimodal performance measure. The Government Code Section 65089 (b) states:

“The program shall contain the following elements:

(2) A performance element that includes performance measures to evaluate current and future multimodal system performance for the movement of people and goods. At a minimum, these performance measures shall incorporate highway and roadway system performance, and measures established for the frequency and routing of public transit, and for the coordination of transit service provided by separate operators. These performance measures shall support mobility, air quality, land use, and economic objectives, and shall be used in the development of the capital improvement program required pursuant to paragraph (5), deficiency plans required pursuant to section 65089.4, and the land use analysis program required pursuant to paragraph (4). “

The VTA Board adopted the ten CMP Performance Measures as part of the 1995 CMP in compliance with AB 1963. The current CMP Performance Measures are summarized below, and technical documentation is provided in Appendix I.

In September 2013, the California legislature enacted Senate Bill (SB) 743, directing the Governor’s Office of Planning and Research (OPR) to develop new significance criteria to replace level of service (LOS) in the evaluation of transportation impacts under CEQA. OPR has indicated that LOS will be replaced by Vehicle Miles Traveled (VMT). Further information about SB 743 and its implementation is provided in Chapter 3.

Although SB 743 did not directly call for changes to the Transportation Analysis Standards Element or Multimodal Performance Measures Element of the CMP, it is expected that these Elements will be updated for compatibility with the new CEQA Guidelines once they are adopted. Specifically, VTA will be revisiting the CMP auto LOS standard (see introduction to Chapter 3) and considering
DEVELOPMENT OF MULTIMODAL PERFORMANCE MEASURES

The development of appropriate performance measures is critical to demonstrate and compare the effects of alternative transportation plans or land use decisions. Performance measures provide a common framework in which to evaluate investments and strategies that might otherwise be difficult to compare. They allow an apples-to-apples comparison, illustrating tradeoffs between the alternatives as well as mitigation measures.

The purpose of multimodal performance measures is to evaluate how well Santa Clara County’s transportation system serves the traveling public and contributes to economic development, environmental sustainability and quality of life. Individual performance measures may be applied to a specific geographic area or to a single mode type within the County. The results of these individual measures can be used to compare performance during a specific time period or under alternative investment strategies. However, because some measures will be more sensitive to changes that are specific to a particular type of improvement, mode or time, a comprehensive set of measures must be selected to capture the effects on the entire transportation system.

The key considerations when selecting performance measures are:

**Suitability** — Does the measure meet the goals and objectives of the plan or project they are evaluating?

After defining the suitability of the performance measure, it is important to determine if the following features are met:

**Clarity** — Is the measure understood by policy-makers, professionals, and the public?

**Measurability** — Is it possible to use available tools and resources to measure performance? What is the level of accuracy? Is the data reliable? Is the measure related to performance?

**Forecastability** — Can the performance measure be used to determine if alternatives are comparable? Can existing forecasting tools be used to measure performance?

**Multimodality** — Does the measure evaluate the travel modes being considered? Does it indicate meaningful tradeoffs between alternative modal investments?
Temporal Issues — Is the measure comparable over time? Is it capable of measuring the magnitude and location of temporal issues on travel demand? Can the measure differentiate between peak-period, off-peak, and daily travel demand?

Geography — Is the measure applicable to all areas of the County? Can it differentiate facility types? Can it be applied at a regional, subarea, corridor, or location specific level?

The first three criteria above: clarity, measurability, and forecastability are critical concepts that must be addressed across all performance measures. The remaining three criteria: multimodality, temporal issues and geography answer performance measure-specific questions; therefore, the degree these criteria are used will vary for each of the performance measures. As a result, some of the performance measures will be more sensitive to changes that relate to a particular type of improvement, mode choice, time of day, or place. To address each issue that affects the transportation system, a comprehensive set of performance measures must be selected.

VTA EVALUATION OF HCM 2010 MULTIMODAL LEVEL OF SERVICE MEASURES

In December 2010, the Transportation Research Board released the 2010 edition of the Highway Capacity Manual (HCM 2010). The HCM is a nationally-accepted resource that contains concepts, guidelines, and procedures for computing the capacity and quality of service of various roadway facilities, including freeways, arterial roads, signalized and unsignalized intersections, and rural highways. The 2010 edition of the HCM contains extensive new methodologies to evaluate level of service (LOS)/quality of service (QOS) for pedestrian, bicycle and transit modes on urban arterial roadways. One of the most significant elements introduced in HCM 2010 is a quality of service orientation in the methodologies, in which the evaluation is based on the perception of safety and/or comfort on the part of the pedestrian, bicyclist or transit rider, in addition to the capacity-based analysis methods presented in previous versions of the HCM.

VTA and Member Agency staff anticipated that the new multimodal LOS measures in HCM 2010 could be useful in evaluating the benefits and impacts of development proposals and roadway projects on pedestrians, bicyclists, and transit riders, as well as drivers. Therefore, to learn more about the multimodal LOS measures and consider potential applications in Santa Clara County, VTA and its Member Agencies engaged in an extensive program of education and testing from 2011-2013. These activities included pilot analyses of key intersections and corridors in the CMP network as well as studies to measure the magnitude of changes in multimodal LOS associated with hypothetical geometric modifications to roadway facilities. These activities were described in greater detail in the 2013 CMP and a Technical Memo prepared by VTA staff (March 2013). VTA staff continually updated the Systems Operations & Management (SOM) Working Group, the Land Use / Transportation Integration (LUTI) Working Group, and Advisory Committees as appropriate during this process, and organized two hands-on multimodal LOS training sessions for Member Agency staff.
The following is a summary of general observations on the HCM 2010 multimodal LOS measures by VTA and Member Agency staff based on the testing, education and outreach described above:

- Street modifications produce LOS changes in the direction (positive or negative) that generally aligns with the intuitive assumptions of VTA and Member Agency staff, with occasional anomalies.
- The magnitude of MMLOS changes are not as predictable as the direction, and require further evaluation.
- Proper application of HCM 2010 multimodal LOS methodologies may require consistent judgment calls and/or the development of guidelines for interpreting certain variables of street geometry.
- HCM 2010 formulas may need to be customized to adjust or disregard certain variables to bring multimodal LOS evaluations more in line with VTA and Member Agency assumptions (for example, results related to right turn islands and road diets). HCM 2010 explicitly states that formulas can be adjusted to reflect local conditions.

Based on the observations noted above, VTA identified the following next steps:

- The potential establishment of HCM 2010 multimodal LOS thresholds in the VTA CMP is not likely in the near term unless new industry standards for implementation and/or revised multimodal LOS formulas are released.
- The 2014 VTA Transportation Impact Analysis (TIA) Guidelines update included a new requirement for projects that modify roadway or intersection geometry to include an informational quality of service (QOS) evaluation of bicycle and pedestrian modes on the modified facility. The TIA Guidelines allow the Lead Agency latitude in selecting the QOS methodology but include the HCM 2010 Multimodal LOS measures as one option recommended for consideration. See Chapter 6 for more details on the 2014 TIA Guidelines update.
- VTA will continue to test and evaluate multimodal evaluation measures used in the Bay Area and elsewhere.

**VTA CMP MULTIMODAL PERFORMANCE MEASURES**

The 1995 CMP identified nine performance measures intended to meet specific statutory requirements unique to the CMP legislation. Through subsequent planning efforts, the performance measures have continued to evolve to meet the CMP statutory requirements while taking a more sensitive, effective, and efficient approach to measuring performance. In 2006 and 2007, VTA developed the Transit Sustainability Policy which identifies performance measures and thresholds for transit. The Policy ensures that investments in transit service are used efficiently.
and serve the corridors with the greatest transit demand. In 2014, the VTA TIA Guidelines were updated to include Pedestrian/Bicycle Quality of Service analysis for certain projects, and Transit Vehicle Delay analysis (due to automobile congestion) for all projects.

This section describes the twelve CMP multimodal transportation system performance measures currently in use. These measures are summarized in Tables 3.1 and 3.2, and a more detailed discussion of each measure is provided below. A technical discussion of the measures and their application can be found in Appendix I.

**AUTO LEVEL OF SERVICE**

The Highway Capacity Manual defines Level of Service (LOS) as “...qualitative measures that characterize operational conditions within a traffic stream and their perception by motorists and passengers.” The terms used in describing auto LOS include speed and travel time, freedom to maneuver, comfort/convenience, and traffic interruptions. Auto LOS is categorized from A through F; with LOS A representing free-flow travel and LOS F representing congested traffic flow at specific intersections or along roadway segments. Chapter 2 of this document summarizes the VTA CMP auto LOS standards and describes which facilities are considered to be deficient according to these standards.

Auto LOS is a vehicle-based performance measure that is used to measure imbalances between traffic volume (demand) and capacity (supply) in specific locations on the roadway system. Adding lanes, modifying intersections, increasing transit infrastructure on parallel routes, and using ITS strategies such as signal synchronization, are some of the strategies to increase capacity and improve operations and through-put of roadway facilities. Changes in volume can be caused by intensification of development, mode shifts, time of day shifts, or changes in travel patterns (i.e. changing origins or destinations).

Auto LOS is a widely accepted measure of roadway and intersection performance. Auto LOS alone is a good indicator of trouble spots in the road network. When used in conjunction with other performance measures such as passenger throughput, auto LOS can be a much more meaningful performance measure. Nevertheless, auto LOS has significant shortcomings. An example of this is that a singular focus on traffic auto LOS may encourage the belief that a significant increase in roadway, intersection or interchange capacity is the most effective mitigation measure for traffic impacts. Using other performance measures in addition to auto LOS can help decision makers see the benefits of a wider range of improvements that encourage multimodal uses.
<table>
<thead>
<tr>
<th>Performance Measure</th>
<th>Mode(s) Analyzed</th>
<th>Brief Definition</th>
<th>Metric Improves If...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto Level of Service (LOS)</td>
<td>Auto</td>
<td>A measure of vehicle delay and traffic flow at intersections and along roadway segments</td>
<td>Congestion and delay decrease and traffic flows more smoothly at specific intersections or roadway segments.</td>
</tr>
<tr>
<td>Vehicle Miles Traveled (Per Capita, Employee or Person-Trip)</td>
<td>Auto</td>
<td>A measure of the total amount of auto travel (trips multiplied by average trip length), associated with a specific site or within a defined area</td>
<td>The total amount of auto travel to/from a specific site or within a defined area decreases, or grows more slowly than the number of residents or employees or the amount of travel by non-auto modes.</td>
</tr>
<tr>
<td>Modal Split</td>
<td>All Modes</td>
<td>The percentage of travelers using the major transportation modes (e.g. drive-alone auto, HOV, transit, pedestrian and bicycle)</td>
<td>The total number of trips by transit, pedestrian, bicycle, and HOV modes increases faster than the total number of auto trips to/from a specific site or within a defined area.</td>
</tr>
<tr>
<td>Pedestrian and Bicycle Quality of Service (QOS)</td>
<td>Pedestrian and Bicycle</td>
<td>A measure of features of the environment that affect the comfort and safety of pedestrians and bicyclists from the user’s perspective.</td>
<td>Physical modifications to intersections or roadway segments provide a greater level of comfort and safety for pedestrians and bicyclists.</td>
</tr>
<tr>
<td>Transit Vehicle Delay</td>
<td>Transit</td>
<td>A measure of delay experienced by transit vehicles, associated with overall automobile congestion at specific intersections or along a transportation corridor</td>
<td>Transit vehicles experience reduced delay at an intersection or along a corridor, either through an overall decrease in congestion or through the implementation of transit priority measures.</td>
</tr>
<tr>
<td>Transit Accessibility</td>
<td>Transit</td>
<td>An aggregate index of transit frequency, accessibility and coordination to determine how well transit serves the population of Santa Clara County</td>
<td>Transit frequency, accessibility and/or coordination improve.</td>
</tr>
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<td>N/A</td>
<td>Countywide measures of specific pollutants emitted by mobile sources (e.g. autos, trucks and transit vehicles)</td>
<td>Travel patterns reflect lower overall vehicle miles traveled (see above), and/or changes to travel speeds, frequency of starting/stopping, or other factors reduce air pollutants.</td>
</tr>
<tr>
<td>Duration of Congestion</td>
<td>Auto</td>
<td>The length of time that a transportation facility is congested</td>
<td>The duration of congestion on a transportation facility decreases.</td>
</tr>
<tr>
<td>Hours of Delay/Person-Trip</td>
<td>Auto or Transit</td>
<td>The total amount of delay experienced by users of a transportation facility, divided by the total number of person-trips on the facility.</td>
<td>Transportation facility improvements result in reduced delay or the use of more efficient travel modes increases while delay stays the same.</td>
</tr>
<tr>
<td>Travel Time Index</td>
<td>Any mode, most often Auto or Transit</td>
<td>The amount of time to travel between two points by a particular mode, or the average across all modes</td>
<td>Travel time between two points by a particular mode or across all modes decreases.</td>
</tr>
<tr>
<td>Transit Sustainability Policy (TSP)</td>
<td>Transit</td>
<td>Ridership and revenue targets for VTA transit service</td>
<td>Average Boardings per Revenue Hour and Average Daily Boardings per Station increase to meet/exceed the target ranges identified in the TSP for each type of transit.</td>
</tr>
<tr>
<td>Travel Pattern (in Person Trips)</td>
<td>All Modes</td>
<td>The total amount of directional travel between given geographic areas, such as Traffic Analysis Zones (TAZs), cities, or counties</td>
<td>N/A</td>
</tr>
<tr>
<td>Performance Measure</td>
<td>Member Agencies</td>
<td>VTA/Member Agencies</td>
<td>VTA</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------</td>
<td>---------------------</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>Evaluation of Development Projects</td>
<td>Evaluation of Long-Range Planning Efforts</td>
<td>Evaluation of Transportation Capital Projects</td>
</tr>
<tr>
<td>Auto Level of Service (LOS)</td>
<td>Required per CMP Transportation Analysis Standards</td>
<td>Required per CMP Transportation Analysis Standards</td>
<td>Required per CMP Transportation Analysis Standards</td>
</tr>
<tr>
<td>Vehicle Miles Traveled (Per Capita, Employee or Person-Trip)</td>
<td>Recommended for consistency with recent state legislation</td>
<td>Recommended for consistency with recent state legislation</td>
<td>Included; Anticipated updates in response to state legislation</td>
</tr>
<tr>
<td>Modal Split</td>
<td>Recommended</td>
<td>Recommended</td>
<td>Included</td>
</tr>
<tr>
<td>Pedestrian and Bicycle Quality of Service (QOS)</td>
<td>Required for per CMP TIA Guidelines changes to roadway geometry or signal operations; Recommended for other projects</td>
<td>Recommended</td>
<td>N/A</td>
</tr>
<tr>
<td>Transit Vehicle Delay</td>
<td>Required per the CMP TIA Guidelines</td>
<td>Recommended</td>
<td>Recommended</td>
</tr>
<tr>
<td>Transit Accessibility</td>
<td>N/A</td>
<td>Recommended</td>
<td>Recommended for projects changing frequency, accessibility or coordination of transit routes/facilities</td>
</tr>
<tr>
<td>Air Quality</td>
<td>Recommended; Often required in CEQA evaluation</td>
<td>Recommended; Often required in CEQA evaluation</td>
<td>Recommended; Often required in CEQA evaluation</td>
</tr>
<tr>
<td>Duration of Congestion</td>
<td>N/A</td>
<td>Recommended</td>
<td>Recommended</td>
</tr>
<tr>
<td>Hours of Delay/Person-Trip</td>
<td>N/A</td>
<td>Recommended</td>
<td>Recommended</td>
</tr>
<tr>
<td>Travel Time Index</td>
<td>N/A</td>
<td>Recommended</td>
<td>Recommended</td>
</tr>
<tr>
<td>Transit Sustainability Policy (TSP)</td>
<td>N/A</td>
<td>N/A</td>
<td>Required for VTA transit; N/A other projects</td>
</tr>
<tr>
<td>Travel Pattern (in Person Trips)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
**VEHICLE MILES TRAVELED**

Vehicle Miles Traveled (VMT) is a measure of the total amount of vehicle travel on the roadway network. VMT is calculated by multiplying the total number of vehicle trips by the average distance of each trip. VMT can be normalized to reflect travel efficiency, such as measuring VMT per capita, employee or person-trip. Normalization is an important step to understand the meaning of a given change in VMT. For example, an absolute increase in VMT could indicate a greater number of single-occupant vehicle trips, or an increase in trip lengths; however, if the rise in VMT is slower than the rise in population (showing an overall decrease in VMT/capita), it would indicate that the usage of the transportation network is becoming more efficient over time.

VMT (per capita, employee or person-trip) is therefore a compound performance measure encompassing auto trip generation, average auto trip length, and modal split. This makes it a good indication of the overall efficiency of the multimodal transportation network, but not an ideal tool to identify specific problems in specific locations within the network. An improvement (e.g., a decrease) in VMT per capita, employee or person-trip could be an indication of any combination of the following:

- The total number of auto trips decreases;
- The average length of auto trips decreases;
- Usage of non-auto travel modes, such as transit, bicycle, pedestrian and high-occupancy vehicle (HOV) increases while auto usage stays the same or decreases.

The effects described above could be caused by:

- A more efficient land use pattern, bringing residences, work sites and retail/services in closer proximity to each other (improving accessibility), leading to shorter auto trips and/or a greater share of trips by walking, bicycling and transit;
- Improvements to transportation infrastructure to make transit, bicycle and pedestrian travel faster, safer, and more attractive relative to auto travel;
- Transportation Demand Management (TDM) programs to incentivize other travel modes and reduce auto trips (see Chapter 5).

Conversely, an increase in VMT per capita, employee or person trip could be an indication that the total amount of auto travel is increasing and/or travel by transit, bicycle, pedestrian and HOV modes is decreasing, or not increasing as fast as auto travel. These effects could be caused by an inefficient land use pattern, a degradation of non-auto transportation infrastructure or a significant enhancement to auto infrastructure without equivalent investments in non-auto modes, a reduction in TDM incentives to residents or employees in an area, or any combination of these factors.
During the development of the 1995 CMP, the CMA Board selected VMT per Person-Trip (VMT/P-T) as one of the CMP Multimodal Performance Measures. With the passage of SB 743, VMT measures will take on greater prominence in transportation analyses for CEQA as well as CMP purposes (see intro sections to this chapter and Chapter 3). As such, VTA will revisit this performance measure to consider updates for future versions of the CMP.

**MODAL SPLIT**

Modal Split shows the percentage of travelers using the major transportation modes (e.g., drive-alone auto, HOV, transit, pedestrian and bicycle). Modal Split can be used in making programming decisions such as determining the trade-offs between highway, HOV, and transit improvements or it can be used to answer policy related questions such as measuring the effectiveness of increasing parking costs in a downtown area to encourage transit ridership. Some recent major development projects and long-term land use plans in Santa Clara County have set modal split targets, such as Apple Park in Cupertino, San Jose’s Envision 2040, and the North Bayshore Precise Plan in Mountain View.

Modal Split is useful in identifying transportation capital projects, TDM strategies and long-term land use planning alternatives that provide the greatest increases in transit, bicycle and pedestrian activity, relative to automobile usage. It is also useful in measuring long-term trends in the usage of various transportation modes in a specific area, within a city or countywide.

**PEDESTRIAN AND BICYCLE QUALITY OF SERVICE**

As part of the 2014 update of the VTA TIA Guidelines, VTA established a requirement for projects proposing changes to existing roadway or intersection geometry or changes to signal operations to include a Quality of Service (QOS) analysis for bicyclists and pedestrians. A QOS analysis is also recommended for other projects and for documenting existing conditions. QOS methodologies typically measure features of the environment that affect the comfort and safety of bicyclists and pedestrians from the user’s perspective, such as the presence and width of sidewalks and bicycle lanes, intersection crossing distance and delay, lateral separation from auto traffic, auto volumes, and the presence of landscaping or trees. These considerations are in contrast to capacity-based methodologies for evaluating pedestrian and bicycle conditions in the previous TIA Guidelines. The updated TIA Guidelines recommend a capacity-based analysis only for large or unique projects generating large volumes of pedestrian and/or bicycle trips.

The 2014 VTA TIA Guidelines provide informational summaries of six QOS methodologies, including the multimodal LOS approach presented in the Highway Capacity Manual (HCM) 2010 (see “VTA Evaluation of HCM 2010 Multimodal Level of Service,” above, for further information). Lead Agencies have discretion to select appropriate methodologies for bicycle and pedestrian QOS analysis.
TRANSIT ACCESSIBILITY

For the purpose of the VTA CMP, one measure of transit service performance is the local Transit Accessibility Index, which disaggregates transit performance by geographic zone. In contrast to the traditional mobility-based approach for the measurement of transit service performance, accessibility provides a place-based approach for understanding how transit service is divided between areas in Santa Clara County.

The Transit Accessibility Index indicates how well transit serves the population of Santa Clara County. This measure shows where changes in transit service parameters (such as headway and frequency) are desirable and highlights areas where the addition or modification of transit routes and stops may be beneficial. The accessibility index is a sophisticated tool for measuring the effects of changing land uses and densities by striking a balance between zonal travel and household and employment figures. Because it is tied to Traffic Analysis Zones (TAZ), the index can be used to quickly analyze and incorporate both travel demand and demographic data into any accessibility analysis.

The index is derived from travel demand model data, so its outputs are fully in line with the travel model estimations and assumptions used in VTA’s transportation demand model. Furthermore, this method of evaluating transit accessibility encourages a systems approach to accessibility analysis through the combined estimation of multiple transit operator performance. Transit Accessibility was used as one of the performance measures during VTA’s Next Network transit service redesign effort in 2016 and 2017 in preparation for the opening of the BART Phase 1 extension to the Milpitas and Berryessa Stations.

AIR QUALITY

Vehicle emissions of air pollutants are measured in tons of pollutants and are related to several factors. These factors include vehicle miles traveled, cold and hot starts and stops, speed changes, and idling time. The air quality performance measure is necessary for conformance with state CMP guidelines for air quality impacts, and is often required in CEQA evaluation.

Air Quality is measured countywide by pollutant type during the A.M. and P.M. peak hours using the VTA transportation model and Direct Travel Impact Model 3.1 (DTIM 3.1) designed by Caltrans. The pollutants measured include Carbon Monoxide (CO), Hydrocarbons (HC), Oxides of Nitrogen (NOx), and Particulate Matter (PM).

Air Quality is a good measure of the overall external impacts of transportation system operation, but it does not directly correlate to the benefits of an efficient multimodal transportation system. While increased traffic speed and a reduction in the amount of stopping
and starting reduce most emissions, oxides of nitrogen tend to increase as travel speeds increase. In addition, reductions in air pollution have been achieved in recent years by modifying the composition of gasoline, improving the overall fuel economy of the vehicle fleet on the road, and taking measures to reduce pollution of stationary sources (e.g. power plants, factories, etc). Therefore, it is difficult to know whether improvements in Air Quality are due to efficient modal use or other factors.

Other performance measures related to Air Quality can be used to assess related environmental impacts. For example, energy and fuel consumption can measure the amount of energy required to perpetuate or operate an individual project or the transportation system in an area. For automobiles and buses, fuel or diesel fuel consumption can be a measure, and for light and heavy rail transit, electricity consumption can be used. VTA is proactively seeking opportunities to incorporate energy and air quality improvements into all aspects of VTA operations (See “VTA Activities Related to Energy and Air Quality,” Chapter 7).

**DURATION OF CONGESTION**

Duration of Congestion measures the length of time that particular transportation facilities are subject to congested conditions. When travel demand begins to exceed capacity, travelers have four possible ways to avoid the congestion:

1. Shift modes
2. Choose not to travel (e.g. telecommute)
3. Take alternative routes
4. Travel at less congested times

The first three options will not directly affect the Duration of Congestion; however, if travelers choose to shift travel to less congested times, the duration of congestion will increase over a longer period. This is sometimes referred to as “peak spreading.”

Duration of Congestion is an auto-oriented performance measure typically used on highway segments and arterial streets. Duration of Congestion can be affected by changes in travel demand (such as congestion pricing, land-use policies that result in shorter trip patterns, and mode shifts) or changes in transportation capacity (adding highway lanes, modifying intersections, increasing transit infrastructure, and using ITS strategies).

**HOURS OF DELAY PER PERSON-TRIP**

This measure identifies the system-wide hours of delay travelers experience due to congestion on the transportation system. It is generally measured for private vehicle users including SOV and HOV, but can also be used to measure delay experienced by users of transit or other modes. Delay is generally determined by comparing travel time on the transportation facilities
during peak/congested conditions with off-peak/uncongested conditions. Dividing delay by person-trips accounts for the changes associated with population and job growth.

Delay tends to be more sensitive to mitigation efforts than auto LOS. For example, consider an intersection that is currently operating at LOS F with an average control delay of 100 seconds. An action (or group of actions) could improve the delay to 85 seconds, but LOS would remain LOS F.

Hours of Delay/Person Trip is a good supporting performance measure for freeway/expressway ramp and intersection improvements since most of the delays occur in queuing and stop-and-go situations. Hours of delay can be a good indicator of the effectiveness of adding roadway and transit capacity to a travel market or system-wide. It is also a good indicator for system management projects such as ramp metering and signal timing.

**TRAVEL TIME AND TRAVEL TIME INDEX**

Travel Time is measured for the selected travel markets for a base year and some future year. For autos, the difference in Travel Time indicates the change in congestion over time. For Transit, the different in Travel Time may reflect differences in congestion or changes to the amount of priority received by transit vehicles. Travel Time can be a more intuitive measure of mobility than delay because the traveling public thinks more about how long a trip takes than how long they have to wait in traffic at specific locations.

The Travel Time Index reports the travel time by a particular mode or the average travel time across modes. The index compares Travel Time over different years, between different alternatives, and between different modes. The strength of this measure is its ability to show the differences in point to point travel time by mode. Therefore, it is an effective measure to use for transit projects as well as roadway improvements.

**TRANSIT SUSTAINABILITY POLICY**

The Transit Sustainability Policy (TSP) is a ridership-based policy adopted by the VTA Board of Directors in February 2007 that provides a framework for the efficient and effective expenditure of transit funds, and for realizing the highest return on investment in terms of public good and ridership productivity. It is intended to assist the Board of Directors with its decision-making process by making available the most complete information possible regarding options, costs, benefits, and trade-offs of various transit projects and service proposals prior to a selection of mode and funding decisions.

The TSP implementation framework is comprised of three sections, one being the Service Design Guidelines (SDGs). These guidelines were developed to measure the performance of
VTA’s transit service. The Service Performance standards are the primary criteria for the TSP evaluation and recommendation process and are applied to transit service changes, existing service performance, implementation of new transit lines and capital transit projects. In the case of existing services, the performance measures are used to identify underperforming lines and help form the recommendation for system improvement. In the case of new service, the standards are used to develop recommendations for service refinements, modal alternatives and/or system implementation. The performance measures include the following:

- **Primary Standard.** The primary standard uses the Average Boardings per Revenue Hour. This standard applies to Community Bus, Local Bus, Bus Rapid Transit (BRT) and Light Rail (LRT).
- **Secondary Standard.** The secondary standard uses Average Daily Boardings per Station for BRT, LRT and Commuter Rail and the Average Boardings per Mile for BRT and LRT.
- **Express Bus Standard.** The Express Bus standard is 60% of the seated vehicle loading capacity.

These performance measures are used to identify how transit lines are performing. An improvement plan can be implemented for those station areas or routes that perform below the applicable standard. However, if they continue to fall below the TSP standard, the station area or route may be subjected to closure or termination. Service enhancements made as a result of the evaluation may improve the percent transit modal split and reduce VMT.

**TRAVEL PATTERN (IN PERSON TRIPS)**

Travel Pattern measures the balance between people and activities such as employment, recreation, and shopping. It is evaluated in terms of person trips, which provides a measure of mobility; increasing person trips indicates increased mobility. The Bay Area and Santa Clara County are divided into several subareas; travel patterns are used to capture the travel demand and growth projection, in terms of person movements, among these subareas.

**USE OF MULTIMODAL MEASURES IN CMP ELEMENTS**

The CMP statute requires that the multimodal transportation system performance measures be used to prepare the CMP Capital Improvement Program (CIP), the Land Use Impact Analysis Program, and Multimodal Improvement Plans. At this point, the multimodal transportation performance measures are not used to determine Member Agency conformance with the CMP, except for auto LOS (see Chapter 3). Additionally, Member Agencies are not currently required to use most of the performance measures in their evaluation of land-use development proposals, general plans/general plan amendments, or specific plans. The 2014 VTA TIA Guidelines Update included a requirement for Pedestrian/Bicycle Quality of Service analysis for certain projects and Transit Vehicle Delay analysis for all projects. However, other multimodal performance measures may be useful in implementing alternative mitigation measures.
associated with creating pedestrian and transit-friendly development patterns as promoted in VTA’s Community Design and Transportation (CDT) Program, and as pursued by Member Agencies in meeting their own development goals.

VTA plans to use the multimodal performance measures described in this chapter in the identification of the capital projects for the Countywide Transportation Plan and Capital Improvement Program, and in the Land Use Analysis Program and Multimodal Improvement Planning. In addition, VTA uses the measures and approach in the TSP to evaluate existing and proposed transit service and improve transit service productivity. In cases where capital investments in transit routes have already been made, it is the policy of VTA to increase ridership on these lines by working with cities to improve surrounding land uses and develop supporting policies.

The following is a summary of the applicability of these measures to each of these programs:

**Countywide Transportation Plan** — VTA uses the CMP multimodal performance measures in the development of its long-range countywide transportation plan for Santa Clara County, Valley Transportation Plan. VTP includes an analysis of two scenarios (a) a baseline year, and (b) baseline plus the program of projects outlined in the plan. These performance measures are used to evaluate the systemwide effects of the two alternatives. A similar analysis will be calculated for VTA’s future long-range countywide transportation plans.

**Land Use Analysis Program** — Certain of these multimodal performance measures will serve to evaluate the effects of land use changes on the CMP Transportation System. Each year, land use data is collected and the countywide land use database is updated. The countywide transportation model can be used to calculate the performance measures under current conditions and compare them with previous land use conditions. This comparison will be particularly useful as data is collected over the long term.

**Multimodal Improvement Plans** — These performance measures may be used to evaluate the alternative packages of improvements and actions considered for Multimodal Improvement Plans. While state law requires the application of performance measures to local Multimodal Improvement Plans, these particular measures may not be meaningful when applied to small geographic areas. Therefore, for deficiencies that occur on principal arterials located on the CMP System, the jurisdiction in which the deficiency occurs will be responsible for preparing a Multimodal Improvement Plan, which includes level of service as a performance measure and may propose other performance measures. The proposed performance measures must be approved by the VTA Board before the Multimodal Improvement Plan can be approved.
COMPLIANCE AND CONFORMANCE

VTA is responsible for collecting transportation performance measurement data for use in the countywide transportation plan, land use analysis, Multimodal Improvement Plans, and the CIP. Member Agencies are responsible for analyzing multimodal performance measures as required per the CMP and associated Technical Guidelines (see Table 4.2).
CHAPTER 5 | TRANSPORTATION DEMAND MANAGEMENT AND TRIP REDUCTION ELEMENT

This chapter describes the Congestion Management Program (CMP) Transportation Demand Management Element. Throughout this chapter, the term Transportation Demand Management (TDM) will be used to refer to the series of programs that are included in the Travel Demand Management Element.

The chapter is divided into the following sections:

- A Definition of Transportation Demand Management
- TDM, Automobile Trip Reduction, and VTA Guidelines
- TDM and Legislation
- Categories of TDM Strategies
- TDM Programs that VTA Implements
- Funding for TDM Programs
- Compliance and Conformance

A DEFINITION OF TRANSPORTATION DEMAND MANAGEMENT

“Transportation Demand Management or TDM refers to various strategies that change travel behavior (how, when and where people travel) in order to increase transport system efficiency and achieve specific planning objectives.”

1

Transportation Demand Management programs range from simple marketing efforts, such as promoting ridesharing, to more complex public policies, such as developing site-design guidelines or parking pricing programs. These programs are designed to improve the overall performance of the CMP System through elimination or shortening of auto trips, mode shifting, time shifting, or trip linking. To be successful, TDM programs must not only encourage ridesharing, transit, cycling, and walking, but also provide attractive alternatives to single-occupant vehicle trips.

TDM, AUTOMOBILE TRIP REDUCTION, AND VTA GUIDELINES

TDM programs play an important role in reducing automobile trips generated by new development. The goals of TDM strategies can vary from eliminating or shortening auto trips (e.g. telecommuting, trip linking, improving accessibility to services), shifting trips from single-occupant vehicle trips.

occupancy-vehicle to other modes (carpool, transit, walking, bicycling), or shifting trips away from the most congested routes and times of the day. All of these strategies, when successful, reduce the total number of automobile trips on congested facilities during rush hour. This can have important benefits for the transportation system, and can also provide incentives to developments by reducing the extent of transportation impacts found in their environmental review and Transportation Impact Analysis (TIA) processes. Some recent developments in Santa Clara County have applied aggressive trip reduction targets of 30% or more as part of their TDM programs, including annual monitoring and enforcement.

In response to this trend, VTA updated the CMP TIA Guidelines (October 2014) with automobile trip reduction as one of the primary focus areas. A TIA report is required for all development projects in the County that generate 100 or more net new automobile trips during either peak period. As such, the way that transportation impacts and mitigation measures are analyzed and reported in TIAs makes a meaningful difference in how congestion is addressed by major projects. See “Development Review Program,” Chapter 7, for further discussion about the TIA Guidelines and relationship to VTA Development Review.

Prior to the 2014 TIA Guidelines Update, the TIA Guidelines listed a table of standard trip reductions for various project features, including a 5% reduction for TDM programs including financial incentives. The TIA Guidelines also noted that some projects could take larger trip reductions, but did not lay out a specific process for this to be achieved. In response to inquiries from Member Agencies and others, VTA retained the Standard Trip Reductions table but included two additional approaches to taking auto trip reductions in a TIA:

- **Target-Based Reductions** may be taken when the project applicant has entered into an enforceable agreement with the Lead Agency that limits the number of automobile trips traveling to and from the project site. The trip reduction program must include a commitment to monitor trip generation and determine whether targets are met, an enforcement structure, and a commitment to summary-level data sharing;
- **Peer/Study-Based Trip Reductions** may be taken when studies of similar projects, or of other sites occupied by the project applicant, have demonstrated comparable trip reductions through survey results or other data. The trip reduction program must include a commitment to monitor trip generation, and a commitment to summary-level data sharing.

The 2014 TIA Guidelines also include a requirement for projects to complete an Auto Trip Reduction Statement (ATRS) in the Executive Summary of a TIA Report. The ATRS is intended to provide a concise summary of all automobile trip reduction efforts, including any reductions claimed in the Trip Generation section of the TIA and any additional trip reduction efforts undertaken to mitigate or lessen project impacts.
Over the coming years, VTA intends to work with Member Agencies to gather data on TDM and Trip Reduction efforts by major projects utilizing the “Target-Based” and “Peer/Study-Based” approaches to auto trip reductions in TIAs. This data will be used to create a “TDM Clearinghouse” of data for Member Agencies and others to analyze the usage and effectiveness of various TDM strategies in Santa Clara County.

VTA also envisions taking on a more prominent role in coordinating TDM strategies across multiple jurisdictions in high-growth areas of the county, such as taking an active role in the formation of Transportation Management Associations (TMAs). VTA will work proactively with Member Agencies to identify such opportunities to help establish TDM programs or strengthen existing TDM programs.

**TDM AND LEGISLATION**

California Government Code section 65089(b)(3) requires that the CMP contain a Travel Demand Element that promotes alternative transportation methods and improves the balance between jobs and housing. TDM strategies are a crucial part of meeting the requirements of the California Clean Air Act (CCAA). The TDM Element of the VTA CMP is designed to conform to the requirements of the State CMP statute, and the Federal and California Clean Air Acts.

The CMP statute states in Government code section 65089 (b)(3) that the CMP should contain the following element:

“A travel demand element that promotes alternative transportation methods, including, but not limited to, carpools, vanpools, transit, bicycles, and park-and-ride lots; improvements in the balance between jobs and housing; and other strategies, including, but not limited to, flexible work hours, telecommuting, and parking management programs. The agency shall consider parking cash-out programs and congestion pricing during the development and update of the travel demand element.”

The CMP statute also requires that the CMP be responsive to the California Clean Air Act (CCAA) and the requirements of the regional Clean Air Plan. Specifically, the CMP must consider the potential effect of regional air quality measures in the Trip Reduction and Transportation Demand Element, the Capital Improvement Program, and the Multimodal Improvement Plan Element. Appendix E provides a summary of references to air quality included in the CMP statute.

**BAY AREA AIR QUALITY MANAGEMENT DISTRICT (BAAQMD) TRIP REDUCTION REQUIREMENTS**
The Bay Area Air Quality Management District (BAAQMD), also referred to as the Air District, recommends programs to reduce solo commuting such as guaranteed ride home programs, shuttles to transit, ride-matching for carpools and vanpools, subsidy programs for transit passes, parking charges, and effective advertising and marketing programs.

In Fall 2012, California Senate Bill 1339 was signed into law authorizing the Air District and MTC to jointly adopt a regional commute benefit program. Pursuant to SB 1339, the Air District and MTC developed the Bay Area Commuter Benefits Program (Program) to promote the use of alternative commute modes such as transit, ridesharing, biking and walking. The Program requires employers with 50 or more full-time employees in the Bay Area to offer commute benefits to employees who work 20 hours or more per week. Employers can meet the requirement by offering any of the following benefits:

- Allow employees to pay for transit, vanpool or bicycle expenses with pre-tax dollars
- Directly subsidize transit or vanpool costs up to $75 per month
- Provide employer-operated transit, shuttle or vanpool services
- Provide an alternative benefit that would be equally effective in reducing auto trips

**TRANSPORTATION REQUIREMENTS OF THE CALIFORNIA CLEAN AIR ACT (CCAA)**

The CCAA of 1988 expanded the scope and accelerated the pace of air pollution control efforts in California. The intent of the Act was to establish a planning process that would result in attainment of the State’s health-based ambient air quality standards at the earliest practicable date.

Each Air District is required to adopt a Clean Air Plan (CAP) that contains a strategy for attaining air quality standards. The Bay Area’s Air District’s first CAP was adopted in October 1991. In April 2017, the Air District Board adopted the Bay Area 2017 CAP. The 2017 CAP serves to update the Bay Area ozone plan in compliance with the requirements of the California Health & Safety Code. In addition, the 2017 CAP provides an integrated, multi-pollutant strategy to improve air quality, protect public health, and protect the climate. The 2017 CAP will reduce ozone pre-cursors, as well as particulate matter (PM), toxic air contaminants, and greenhouse gases, in order to improve public health and protect the environment and climate.

Recognizing the impact of transportation on ozone, the 2017 CAP includes 23 Transportation Control Measures (TCMs) aimed at reducing motor vehicle emissions due to ozone, particulate matter, air toxics, and greenhouse gas emissions. The TCMs most relevant to TDM are TCM TR2, which calls for supporting voluntary employer-based trip reduction programs, and TCM TR13, which pursues parking policies and strategies. Appendix F contains a list of the 23 TCMs in the Bay Area 2017 CAP.
A significant overlap between the California Clean Air Act and Congestion Management Program’s statute occurs in the area of TDM ordinances and programs. TDM implementation is a major feature of the region’s Clean Air Plan. VTA administers funding for TDM projects that are aimed at improving air quality, and VTA encourages Member Agencies to implement TDM programs and measures as development projects and land use plans are approved, and as Member Agencies develop and implement Multimodal Improvement Plans (refer to Chapter 10).

**CATEGORIES OF TDM STRATEGIES**

There is a variety of TDM practices that employers, developers, and local agencies can adopt to manage congestion on the transportation network such as providing cash subsidies, commute options and services, flexible work schedules, and other approaches. The following discussion provides examples of these programs.

**PRICING**

Pricing strategies aim to adjust the cost of various forms of transportation to encourage more efficient use of the transportation system. These strategies can encourage mode shifts away from single occupant automobile use by adjusting the relative costs of driving and alternative modes. Strategies that raise the price of transportation during the peak period can also shift automobile trips to other times of the day, thus redistributing traffic outside the most congested period of the day.

**Parking Cash-Out Program** — A parking cash-out program is defined as an employer-funded program under which the employer provides a cash allowance to an employee equivalent to the parking subsidy that the employer would otherwise pay to provide the employee with a parking space. Under California state law, ”parking subsidy” means the difference between the amount out-of-pocket costs paid by an employer on a regular basis to secure the availability of an employee parking space not owned by the employer, and the price, if any, charged to an employee for use of that space. A 1997 survey of eight Southern California businesses using parking cash-out programs found that they reduced single-occupancy commuting by an average of 17% and reduced carbon dioxide emissions by 807 pounds per employee per year. This study also found that the parking cash-out programs were considered fair and efficient by employers and employees, had a benefit/cost ratio exceeding 4.0, and led to increased income tax revenue².

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Since 1993, California state law (Section 43845 of the Health and Safety Code) has required businesses with at least 50 employees in air basins designated as non-attainment areas to offer parking cash-out. Amendments to the CMP statute adopted in 1992 also require consideration of parking cash-out programs in CMPs. However, the original California parking cash-out legislation (Section 43845) only authorized the California Air Resources Board to enforce the law, and the Board in the past has not had the resources for enforcement. Senate Bill 728 (Lowenthal), approved in October 2009, amended the law to shift enforcement to the local level, by allowing cities, counties and local air districts to impose penalties for violation of the parking cash-out law. These changes to the legislation can be a powerful tool for local agencies to encourage the use of alternative modes, reduce Vehicle Miles Traveled, and reduce GHG emissions due to vehicle use.

The California Air Resources Board (CARB) has developed an informational guide for the implementation of parking cash-out programs. This guide is found in Appendix G.

**Unbundled Parking in Residential Developments** – While it has historically been commonplace for on-site parking to be provided automatically as part of the rental or purchase price of a residence, some developers are taking up the practice of charging for parking spaces separately. This is known as “unbundling” the price of parking from the price of housing. This practice allows residents who choose to own fewer cars than average for the development to save money by not having to pay for parking spots they are not using, and thus encourages lower rates of car ownership and usage.

**Parking Management and Pricing** — Charging drivers to pay for parking on city streets or in off-street parking facilities, or increasing the parking costs on city streets and facilities are effective ways to reduce automobile travel. As costs go up, commuters are likely to find alternate ways to reach their destination without paying for parking, such as taking transit to their destination, or carpooling with other commuters. This option is especially useful in dense urban areas where traffic congestion and demand for parking are greatest, and where transit, walking and biking options are typically most available. VTA has recently partnered with the Metropolitan Transportation Commission to provide information and assistance to Member Agencies in Santa Clara County who may wish to pursue parking management and pricing initiatives.

**Subsidizing Ridesharing** — Employers can encourage carpooling by reimbursing the fuel costs, or by subsidizing, by a pre-determined dollar amount per day, those who choose to carpool. Note, however, that any cash given to carpoolers is taxable income. Employers can encourage vanpooling by subsidizing the cost of the vehicle either directly or indirectly. With vanpools, employers can contribute a certain amount per month tax-free. Employers can also encourage both carpooling and vanpooling by providing preferential parking spaces for these modes close to building entrances.
Employee Pre-Tax Commuter Benefits — Financial incentives for employees through tax credits and other mechanisms are important elements to encourage the use of public transit and other alternatives to driving alone. Promoting such alternatives is critical to reducing traffic congestion and improving air quality. Through changes in federal tax law in the 1990s, employers are free to offer a range of commute fringe benefits without fear of tax consequences. These benefits can either be offered in addition to an employee’s base salary, or the employer can offer the benefit “in lieu of compensation.” Providing a portion of an employee’s income in the form of a transit voucher cuts taxes for both the employer (less FICA tax) and the employee (less income tax).

The Federal TEA-21 legislation clarified that the value of any transportation fringe benefit—including free parking, transit passes or vouchers, and vanpool benefits—is not counted as taxable income if an employee is offered a choice between taxable cash benefits and any combination of transportation fringe benefits. The total amount employers are allowed to offer as a tax free commuter benefit has fluctuated over time; as of 2015, federal legislation allows up to $130.

Transit Subsidies — Some employers and residential developments located near transit are now offering free or discounted transit passes to employees and residents. Programs like VTA’s Eco Pass allow employers and residential projects to purchase these passes in bulk to encourage greater usage of the transit system (See the next section, “Programs That VTA Implements” for more details). Caltrain’s Go Pass offers a similar program.

Alternative Cash Incentive Programs — These programs allow employees to participate in an incentive program where they are rewarded with gifts and prizes for using alternative commute modes. An example of this program is for companies to hold a monthly raffle for all employees that participate in alternative forms of commuting. In Santa Clara County, many employers offer similar programs to reward employees for not driving alone. For example, Stanford University’s Commute Club is a well-established, extensive alternative commuter incentive program. This type of program is a fun and rewarding way to get an entire company or organization involved in promoting alternative commute options.

Road Pricing/Congestion Pricing — Road pricing charges drivers a direct cost for driving on a particular roadway or in a particular area. The related concept of congestion pricing seeks to keep congestion levels on the transportation system below an acceptable threshold by charging users a variable fee. Pricing can encourage some drivers to consider alternative modes of travel, travel times or travel routes, thereby relieving pressure on the most congested facilities at peak hours. This strategy is especially effective in reducing single occupancy commute trips if there are alternative commute options such as transit service and ridesharing to choose from.
Express Lanes — Express Lanes are modified HOV lanes that allow non-carpool drivers to use the lane for a fee that varies depending on traffic conditions. This strategy takes advantage of excess capacity in HOV lanes, making more efficient use of the existing roadway system, and has the added benefit of raising revenue for future corridor improvements, including express bus services operating in those lanes.

ALTERNATIVE MODES

Providing options and services to travelers makes it easy for them to change their travel mode. The following is a list of strategies that can reduce the number of travelers that drive alone to their destination.

Bicycle and Pedestrian Improvements — Perhaps the most basic improvement to encourage a shift away from single occupant automobile travel is an enhanced environment for pedestrians and bicycles. These strategies make the streets safer, more vibrant, and attractive for those who arrive at a destination without a car. Bicycle and pedestrian improvement strategies include traffic calming and complete streets policies; provision of a complete sidewalk and walking path network; bike lanes, racks and other facilities; and publicity campaigns that encourage drivers to share the road safely.

Carpools and Vanpools — An alternative to driving alone is to find other commuters heading to the same or similar destinations and form a carpool or vanpool. This saves commuters money on gas, allows them to partially avoid the stress of driving every day, and reduces congestion and carbon emissions by taking some cars off the road. Employers and other organizations can help employees form carpools by maintaining a central database of potential carpoolers. This database can be web-based to provide easy access to company employees. Additionally, 511.org maintains a free to the public regional ride-matching database for the nine-county Bay Area, and provides employer-exclusive ride-matching. The 511.org web-based matching system allows individuals to instantly access a list of commuters — and a link to their email — with which they could share their commute.

Vanpooling is a convenient and popular way to get to work, especially for people who work far from home. “Official” vanpools have seven to 15 passengers, including the driver (who usually rides for free!), and the vehicle may be owned by one of the vanpoolers or leased from a vanpool rental company. 511.org also helps individuals join an existing vanpool, as well as helps individuals or companies start their own vanpools.

Car Sharing Programs — Car sharing programs make vehicles available to people on a per-use basis. They allow people to use a car when they need it without incurring fixed costs. Fees are
paid based on how much the driver uses the car. Lots are conveniently located throughout the urban area, and reservations are quick and easy, and available on-line.

Car sharing expands mobility options by providing people access to a car when they need one, but frees them from having to select it as the habitual mode of choice. Car-sharing has a multitude of benefits:

- Fewer parking spaces are needed for automobile storage, since multiple people use the same car. This reduces the costs of housing since fewer parking spaces would be required for each dwelling unit.
- Developers are able to build more housing on the same amount of land because fewer parking spaces are required.
- Residents and employees are given access to an entire fleet of cars conveniently located throughout the area.
- Companies have access to fleets of vehicles for meetings outside the office, only incurring charges per hour and/or per mile use.

And as usage grows so does convenience of access to the shared cars, since more people accessing the system means more pick-up and drop off locations.

**Bike Sharing Program** — Bike sharing programs make bicycles available to people on a per-use basis. Similar to car-sharing programs, in a bike sharing program users generally pay fees based on how long they use the bicycle. Bicycles are conveniently located in “pods” throughout an area, usually near transit stations and major trip generators. Payment is accomplished conveniently with a credit or debit card.

**Guaranteed Ride Home** — Often employees are not interested in using alternative modes because the modes are perceived as being inflexible. Without a guarantee that they will be able to get around in an emergency, many employees will continue to drive alone to work. Guaranteed Ride Home (GRH) programs are designed to address this issue. Employees who enroll in GRH programs receive access to transportation such as taxi service in the event of a personal emergency, for a limited number of times every year. GRH programs have found that while enrollees rarely use the program they, perhaps more importantly, gain peace of mind from the enrollment and are more willing to commit to alternative forms of transportation.

**First and Last Mile Connections** — First and last mile services are an integral component of building a viable transit network in a suburban environment. First and last mile conditions can be improved with good park–and–ride facilities and innovative shared-ride and parking strategies, strong bicycle and pedestrian connections with both residential and employment areas, and the application of new technologies or programs such as car and bike sharing.
**Park and Ride Lots** – These lots provide convenient locations for workers who do not live within easy walking distance of a transit stop to drive to a nearby parking lot and take transit the rest of the way to work. This increases the appeal of the transit system by making it useful even to people who live in outlying, low density areas that are difficult for transit to serve directly.

**EMPLOYMENT AMENITIES AND SERVICES**

These strategies rely on employers to provide amenities that encourage alternative modes or allow flexibility in where and when work gets done, opening up the possibility of reducing the transportation demand during the most congested periods of the day.

**On-Site Amenities and Services** — Offering employees the amenities they need at or near their work site can make alternative commute modes more desirable. Popular amenities include bicycle facilities, pedestrian friendly networks, and employee-serving uses (e.g., restaurants, ATMs, postal services) both on-site and off-site. Employers also have the opportunity to provide their employees with transportation services that take their employees offsite such as shuttle services to activity centers during lunch, or the use of company vehicles for personal trips during the day.

**Flexible Schedules and Work Arrangements** — Simply allowing workers to set their own work hours, or setting staggered working hours, can change the company’s peak travel period and reduce peak-period demand on the roadway system.

**Telecommuting** — Some companies have provided hardware and software so that employees can access the company network from home. Hooked into the network from home, these employees may not need to show up at the office at all. While it may not be reasonable or desirable to send employees home all the time, making telecommuting an option for some employees a few days out of the workweek can significantly reduce a company’s overall peak-period trips.

**New Working Arrangements** — Some companies have begun to question the traditional model of maintaining a central office where workers converge every day. For workers whose primary work is done on a computer rather than at a factory, the traditional office model is not necessarily the only workable one. Evidence suggests that some workers have already discarded the model of going to the office every day.

**JOBS/HOUSING BALANCE AND MIXED USES**

This category covers a range of strategies that bring the places people go throughout the day—employment sites, shopping, entertainment, etc.—closer to where people live, thus requiring
fewer and/or shorter trips to accomplish daily tasks. This requires a fundamental shift in thinking about the purpose of transportation, which has generally been conceived over the past few decades in the United States to be mobility – or the ability to move unimpeded throughout the region at consistently high speeds. A new paradigm focuses instead on access, the ability to reach destinations. Under this paradigm, some amount of localized congestion in dense, urban activity centers can be a good thing if it results from a mixed use built environment where people are able to get around by walking, biking, transit, and short car trips. In the long run, the region as a whole will experience reduced vehicle travel and improved air quality as a result of such development. See Chapter 7 for more information on VTA’s efforts in these areas.

PROMOTIONS AND MARKETING

Public knowledge and attitudes have strong effects on travel behavior, so these strategies are important to TDM implementation. As a general distinction, promotion strategies aim to increase awareness of information people need to participate in TDM programs, while marketing strategies seek to understand, guide and influence travel behavior.

**Promotion strategies include:** bike, pedestrian, and transit maps that are widely available; education programs for public officials, businesses, and employees about TDM; websites or smartphone applications to provide information about transit and alternative travel options; wayfinding systems that make the transit system easier to understand; signage programs or publicity campaigns that encourage drivers to “share the road” with cyclists and pedestrians; and school programs that educate children about modes of transportation (for example, bicycle education is part of the standard curriculum in elementary schools in the Netherlands).

**Marketing campaigns include:** events such as a “bike to work week” or “eco-commute challenge”; surveys to determine travel preferences, knowledge and opportunities among the population of an area; campaigns that highlight the benefits of alternative modes and seek to change public attitudes; temporary discounts or free service on public transit to encourage people to try the system; and campaigns that connect transportation mode choice to environmental objectives, such as the Bay Area’s “Spare the Air” campaign.

TDM PROGRAMS THAT VTA IMPLEMENTS

VTA’s current countywide transportation plan, VTP 2040, and its Community Design & Transportation (CDT) Program encourage the development and continuation of successful trip reduction efforts through partnerships and incentive programs. Over the years, public agencies have taken the role of enforcing performance standards during the development review process. Developers that are not able to conform to these standards are able to implement TDM measures as a way of mitigating or lessening impacts. TDM has been a useful tool in managing the impact of development projects with auto LOS as the primary performance
metric for transportation analysis, and TDM will continue to play an important role as the emphasis shifts to VMT under SB 743.

In addition, even in the absence of a government mandate to enforce TDM practices, some companies are willing to maintain TDM programs as community and employee benefits, and may commit to trip reduction measures when applying to build new or expanded facilities. VTA, through its Development Review Program (described in Chapter 7), works with local agencies to review and comment on transportation and environmental analyses of development proposals, and offers recommendations regarding TDM measures where appropriate. In addition, VTA maintains several successful TDM programs, listed below.

ECO PASS
The Eco Pass program allows employers, developers, educational institutions, management companies or homeowners associations the ability to purchase VTA transit passes at a bulk discount rate to provide to employees or residents to encourage transit usage. Eco Passes are good for unlimited use of VTA Bus and Light Rail services, seven days a week. The program also includes an “Emergency Ride Home” provision that allows Eco Pass holders to take a taxi home if they need to leave work in the middle of the day.

NEW EXPRESS ROUTE SERVICE PROGRAM
The draft New Transit Service Plan proposed to discontinue four express routes (101, 122, 182 and 185) and decrease trips on four others (102, 103, 121 and 168). The Final Plan proposed to defer the Draft Plan’s proposed service decreases until early 2020 so that VTA can respect the financial contributions that employers have made to purchase annual SmartPasses for their employees. In early 2020, VTA will implement a new Express Route program model that includes third-party funding partnerships that would offset the high cost of operation and bring the routes into compliance with VTA’s performance standards.

PARK AND RIDE LOTS
VTA maintains 41 park and ride lots in 12 different cities throughout Santa Clara County. The lots connect commuters with VTA’s light rail system, Caltrain, Capitol Corridor, Altamont Commuter Express, and several express bus routes.

HOV LANES AND EXPRESS LANES
VTA, in cooperation with Caltrans, plans for and maintains HOV lanes throughout Santa Clara County to encourage more efficient use of highways. Santa Clara County has the most extensive HOV network of any county in the Bay Area with 190 miles of HOV lanes.
In 2008 the VTA Board of Directors approved the Silicon Valley Express Lanes Program. As part of the Program, the Express Lanes projects will implement a roadway pricing system to allow solo commuters to use the available capacity in the carpool lanes for a fee. The fee would change dynamically in response to existing congestion levels and available capacity in the carpool lanes.

On March 20, 2012, VTA opened the first express lane in Santa Clara County on the SR 237/I-880 connector ramp. During FY 2017, over 3,030,000 vehicles used the express lane including over 465,000 solo drivers (about 15%). The express lane produced estimated toll revenues of $1,270,000 during FY 2017. Data shows that the express lane has successfully improved travel speeds, reduced congestion, increased traffic throughput and provided overall improved traffic operations in the corridor.

The Silicon Valley Express Lanes program includes additional express lane projects under development in Santa Clara County, including SR 237 Phase II, US 101, and SR 85.

FUNDING FOR TDM PROGRAMS

Transportation Demand Management programs can be funded by a wide variety of public and private sources, some of which require VTA involvement or coordination in Santa Clara County.

VTA administers several funding programs that support TDM and alternative modes of transportation: the BAAQMD’s Transportation Fund for Clean Air (TFCA), the Santa Cara County Vehicle Emissions Based at Schools (VERBS) Program, the State’s Transportation Development Act (TDA), and the Congestion Mitigation and Air Quality (CMAQ) Program. These funding sources are described below, along with descriptions of the federal funding sources which fund the STIP. See Chapter 8 (Capital Improvement Program Element) for more information on these funding programs.

Transportation Fund for Clean Air — The Transportation Fund for Clean Air (TFCA) grant program is funded by a surcharge on vehicle registrations. Assembly Bill (AB) 434 (Sher, 1991), signed into law by Governor Wilson in 1991 added Section 44241 to the California Health and Safety Code, and gave the BAAQMD the authority to collect a surcharge of up to $4 on motor vehicle registration fees paid within its jurisdiction. These funds are administered by BAAQMD and used for programs that will reduce motor vehicle emissions.

Sixty percent (60 percent) of TFCA monies are retained by BAAQMD and distributed on a regional, competitive basis. The remaining forty percent (40 percent), also known as “Program Manager Funds,” are returned to the county of origin for allocation within the county on a discretionary basis. VTA is the designated program manager for Santa Clara County.
By statute, only the following project types are eligible for TFCA funds:

1. Implementation of ridesharing programs.
2. Purchase or lease of clean fuel buses for school districts and transit operators.
3. Provision of local feeder bus or shuttle service to rail stations, ferry stations and airports.
4. Implementation and maintenance of local arterial traffic management, including, but not limited to, signal timing, transit signal preemption, bus stop relocation and “smart streets.”
5. Implementation of rail-bus integration and regional transit information systems.
7. Implementation of a “smoking vehicles” program.
8. Implementation of bicycle facility improvement projects that are included in an adopted countywide bicycle plan or congestion management program.
9. The design and construction by local public agencies of physical improvements that support development projects that achieve motor vehicle emission reductions. The projects and the physical improvements shall be identified in an approved area-specific plan, redevelopment plan, general plan, or other similar plan.

Legislation AB 414 (1995) references the trip reduction requirement in the CMP legislation and states that Congestion Management Agencies in the Bay Area that are designated as AB 434 program managers “shall ensure that those funds are expended as part of an overall program for improving air quality and for the purposes of this chapter (the CMP Statute).”

The Air District has interpreted this language to allow a wide variety of transportation control measures now eligible for funding by program managers, including an expansion of eligible transit, rail and ferry projects.

Applications for the regional TFCA (60 percent) funds are made directly to BAAQMD in May of each year. The maximum project award is $1.0 million. The VTA Congestion Management Program, subject to BAAQMD approval, administers the funds for the remaining 40 percent program.

While there is no maximum award in the 40 percent program, Santa Clara County generally receives about $2.0 million per year for the entire program. Member Agencies apply to VTA in late January.
Santa Cara County Vehicle Emissions Based at Schools (VERBS) Program — VERBS is a competitive grant program that funds infrastructure improvements and education/encouragement programs that encourage K-12 students to safely walk, bike, carpool, and ride transit to school. The program was initiated through the Metropolitan Transportation Commission’s (MTC) Climate Initiative Program, with a focus on reducing greenhouse gases by shifting travel behavior. VTA administers the program in Santa Clara County. All Member Agencies within the County are eligible to apply.

The purposes of the program are to: 1) facilitate the planning, development, and implementation of a project and/or activity that will reduce traffic, fuel consumption and air pollution in the vicinity of schools; 2) reduce traffic related injuries and fatalities to school children; 3) enable and encourage children, including those with disabilities, to walk and bicycle to school; and 4) make bicycling and walking to school a safer and more appealing transportation alternative, thereby encouraging a healthy and active lifestyle from an early age. As administrator of the VERBS program, VTA staff has released three calls-for-projects. On December 6, 2018, VTA Board of Directors approved the Cycle 3 program of projects, totaling approx. $1.9M.

Transportation Development Act (TDA), Article 3 Projects — The State’s Transportation Development Act includes several sections or articles – each with a separate project emphasis. Article 3 funds pedestrian and bicycle facilities. TDA funds are derived from a quarter-cent gas tax, returned to the County of origin.

The application and distribution process varies by County. In Santa Clara County, approximately 70% of the annual TDA Article 3 allocation is distributed to member agencies on a prorated basis according to population. The remaining 30% is distributed as discretionary funding on a countywide competitive basis. All TDA Article 3 applications are subject to MTC approval.

Member Agencies submit applications to MTC and VTA in mid-January. Projects are evaluated and prioritized by VTA and Member Agency staff, the Bicycle & Pedestrian Advisory Committee, the Technical Advisory Committee, the Policy Advisory Committee, and VTA Board of Directors. VTA submits the TDA Article 3 priority list of projects to MTC.

Congestion Mitigation and Air Quality Program (CMAQ) — CMAQ funds are to be used to implement the transportation provisions of the 1990 Federal Clean Air Act. These funds are only available to areas designated as non-attainment areas. The Bay Area was briefly designated as an attainment area in 1995. That status was subsequently lost in late 1998 after a series of ozone exceedances in the summers of 1995, 1996, and 1997. Both of these funds are described in more detail in Chapter 8.
The Metropolitan Transportation Commission (MTC) has final programming authority over CMAQ funds. Programming is coordinated at the County level by the CMAs. TDM projects are fundable as system management projects.

2016 Measure B Program – In November 2016, Santa Clara County voters have approved 2016 Measure B, a 30-year, half-cent countywide sales tax to enhance transit, highways, expressways and active transportation (bicycles, pedestrians and complete streets). Two components of Measure B funding may go towards TDM and TDM-like projects.

Measure B Bike Program: The purpose is to fund bicycle and pedestrian projects of countywide significance identified by the cities, County and VTA. The program will give priority to those projects that connect to schools, transit and employment centers; fill gaps in the existing bike and pedestrian network; safely cross barriers to mobility; and make walking or biking a safer and more convenient means of transportation for all county residents and visitors. Bicycle and pedestrian educational programs such as Safe Routes to Schools, will be eligible for funding. This program is anticipated to be in place in late 2019.

Measure B Transit Operations Program: One of the Transit Operations candidate projects and programs is to support new innovative transit service models to address first/last mile connections. Per 2016 Measure B, the Innovative Transit Service Models program intends to support affordable new innovative transit service models to address first/last mile connections including FLEX type services, dynamic on-demand subscription shuttles and partnerships with other demand responsive services providers serving vulnerable, underserved and transit dependent populations.

During August and September 2019, VTA staff worked with the Technical Advisory Committee (TAC) Capital Improvement Program Working Group (CIPWG) to develop criteria and develop the details of the competitive grant program. Projects eligible for the proposed grant program are transportation services that provide first and last-mile connections to public transit. The candidate projects must be implemented within one year of grant award. Planning or feasibility studies are ineligible, as are projects which compete with or duplicate VTA or another transit provider’s services. Call for projects will occur every two years. The VTA Board-adopted allocation for the Innovative Transit Service Models subcategory is $3 million for each of the FY18 & FY19, and FY20 & FY 21 budget cycles. The first call for projects, anticipated in early 2020, will be for the four-year total allocation amount of $6 million.

Other Sources of TDM Funding — Appendix G provides information on other sources of TDM funding, such as Benefit Assessment Districts, Developer funding, Transportation Impact Fees, and other programs.
COMPLIANCE AND CONFORMANCE

VTA does not require local jurisdictions to implement TDM programs in order to be in conformance with the Congestion Management Program. However, the VTA Multimodal Improvement Plan process encourages TDM-oriented actions in cases where a CMP facility has fallen or is forecasted to fall below the CMP standard where it is infeasible or undesirable to mitigate the impact by increasing capacity. These actions form the basis of a Multimodal Improvement Plan (see Chapter 10). In addition, as noted elsewhere in this document, two Multimodal Improvement Plans have been adopted in Santa Clara County to date which include TDM measures in their program of offsetting improvements, and two additional MIPs are currently under development. VTA will monitor the status of the implementation of the measures in these Plans through the Implementation Status Reports submitted by local agencies (described further in Chapter 10).
CHAPTER 6 | TRANSPORTATION MODEL AND DATABASE ELEMENT

This chapter describes the VTA CMP Countywide Transportation Model and Database Element. It contains the following sections:

- CMP Transportation Model and Database Requirements
- Overview of the CMP Transportation Models
- Transportation Model and Database Maintenance
- Compliance and Conformance

Transportation models are analytical tools that can be used to assess the impacts of land use and development decisions on the transportation system. Transportation models are based on a complex interaction of relationships between variables: a simple example might be the relationship between changes in the price of gasoline and the number of vehicle-miles traveled or transit ridership. They are tools that can be used to project future transportation conditions to determine the need for and effectiveness of transportation projects and infrastructure improvements. As long as the basic relationships established in a base year model validation remain well behaved over time, a well-designed and validated transportation model should predict transportation conditions with some degree of confidence.

The CMP transportation database consists of data that describes existing and future transportation network conditions and socioeconomic characteristics in a quantitative manner. The databases are a basic input for the VTA Countywide model (CMP model) and are typically updated based on updates to the regional socioeconomic data sets provided by the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) and through periodic updates of the transportation networks during updates of the regional and countywide long-range transportation plans.

The CMP model serves several purposes:

1. Evaluating the transportation impacts of major capital improvements on the countywide CMP System—including those contained in the CMP Capital Improvement Program (CIP).

2. Establishing transportation system characteristics for use by Member Agencies in performing transportation impact analyses, developing local transportation models, and preparing deficiency plans.

3. Providing roadway volume and transit ridership forecasts to support planning studies, environmental analysis, project engineering and design.

4. Helping summarize the relationship between land use decisions (approved development projects) throughout the County and the CMP transportation system.
As this list indicates, the CMP model serves as a fundamental tool for achieving the goals of the CMP: improving transportation conditions and air quality in Santa Clara County.

**CMP TRANSPORTATION MODEL AND DATABASE REQUIREMENTS**

The CMP Statute requires VTA to develop a uniform database and model for evaluating transportation impacts. The Statute specifies the following three requirements for the CMP database and model, which are discussed in detail below:

1. VTA must develop a uniform database and model for use throughout the County.
2. VTA must approve computer models used by local jurisdictions to determine the transportation impacts of land use decisions on the CMP System.
3. The CMP database and model must be consistent with the Metropolitan Transportation Commission (MTC) regional transportation databases and model.

**UNIFORM DATABASE AND MODEL**

The legislative requirement for a uniform countywide model and database is critical to the success of the overall Congestion Management Program. The CMP model is used to assist in the land use impact analysis program, to help evaluate projects for inclusion in the Capital Improvement Program; to evaluate system-level improvements to the CMP System due to deficiency plans; and to assist with VTA service and project planning.

In 2005, VTA completed the latest major CMP model update, which has improved overall effectiveness by adding detail to Traffic Analysis Zones expanding the number of internal zones from 385 to 1490 and adding zones associated with four new external counties (San Joaquin, Santa Cruz, Monterey, and San Benito) and consistency with the MTC regional model, expanded geographical extent that incorporates surrounding counties, and updated travel patterns and socioeconomic data that reflects Census 2010 data. The 2005 model has since been improved and is referred to herein as the current model. These specific improvements will be described in later sections of this chapter.

**LOCAL MODEL CONSISTENCY**

In addition to the requirement for developing a countywide model, the CMP Statute requires that models developed by Member Agencies to project local transportation conditions be consistent with the CMP model and database. This is a logical requirement that helps assure

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1 California Government Code Section 65089 (c)
that all Member Agencies are using uniform techniques to evaluate the impacts of development projects.

Returning to the concept of transportation models as tools, it is clear that local transportation models will serve a similar purpose. Local models, however, operate on a different scale. While a countywide model may be able to predict future traffic volumes on a roadway, a local model would be capable of predicting the number of vehicles that turn left at a specific intersection. In general, since local transportation models are able to include more background information they provide more detailed “city-specific” information than a countywide model.

The CMP Technical Standards include Local Transportation Model Consistency Guidelines. These guidelines provide guidance to jurisdictions in developing or modifying their transportation models for consistency with the CMP models. They identify characteristics required of local models and the relationship of transportation models to traffic impact analyses. The most recent version of the Local Transportation Model Consistency Guidelines was adopted by the VTA Board in 2009.

**REGIONAL TRANSPORTATION MODEL AND DATABASE CONSISTENCY**

Consistency with the regional transportation model and database is one of the most important requirements of the CMP Statute. This section describes the regional model and database and consistency requirements.

**MTC Regional Transportation Model** — The Metropolitan Transportation Commission (MTC) is responsible for developing the Bay Area’s regional transportation model. MTC has been developing a series of transportation models since the mid-1960s. MTC has recently converted the regional models from trip-based to tour-based models (MTC Travel Model One) and is expected to refine the activity-based models in the very near future. MTC is currently updating the travel analysis zone structure and transportation networks of the regional models. The CMP models are based on the previous version of the MTC transportation planning models known as BAYCAST-90. The BAYCAST-90 travel model demand system was originally developed using 1990 Census data and data from the 1990 regional household travel survey incorporating travel diary data from more than 10,000 households.

**ABAG Database** — The MTC models use input socioeconomic data prepared by the Association of Bay Area Governments (ABAG). ABAG projections provide estimates of employment, land use, housing, population, and household income at regional, county and census tract levels. ABAG updates its database forecasts every four years. These updates are based on surveys of local land use and development policies as well as revised national, state, and regional forecasting assumptions. The most recent version of ABAG’s officially adopted database for
The congestion management application is Projections 2013 (P2013). The P2013 series provide forecasts at five-year intervals from year 2010 to the year 2040. The P2013 regional socioeconomic data represents the Sustainable Communities Strategy scenario as required by California SB 375, and was used in the recently adopted MTC Regional Transportation Plan Bay Area. MTC and ABAG have recently updated the regional growth forecasts in July 2017 (P2017), however, those datasets will not be available until early 2018.

The CMP model currently uses the P2013 data set developed by ABAG. The P2013 ABAG Census Tract level allocations were sub-allocated to the smaller CMP zones based on local development characteristics to reflect the most recently adopted General Plans and specific plans for the cities of San Jose, Santa Clara, Milpitas and Gilroy, and based on the locations of approved development projects, developed in coordination with local jurisdictions. City-level control totals of households, employed residents and jobs were maintained for each jurisdiction in Santa Clara County, however, allocations at the census tract level were different than ABAG, as the growth was reallocated to reflect local approved development plans and projects.

VTA tracks major development project construction activity through an informal data collection process of tracking media reports, visiting sites in the field and communicating with Member Agency staff. During late 2014 and early 2015, VTA utilized this process to develop a “2018 Land Use Scenario” providing a reasonable projection of growth through the year 2018 based on projects under construction or recently completed since early 2014 throughout the county. The year 2018 was selected as the horizon year to coincide with the opening of Phase I of the BART Silicon Valley Extension. VTA intends to continue tracking growth and development in the county to assist in future transportation forecasting efforts and assist in allocating growth from the regional level to the local jurisdiction level.

**CMP Model and Database Consistency** — The CMP model and database are developed to be consistent with the MTC BAYCAST-90 model equations and the ABAG P2013 databases. MTC has recently updated consistency requirements for the CMP in 2019. Summaries of the checklist outputs are provided to MTC in a separate submittal. More details regarding specific consistency issues are described in the following sections.

**CONSISTENCY WITH MTC MODEL**

As noted previously, the CMP model was designed to be consistent with the previous MTC Travel Demand Model forecasting system BAYCAST-90 model. The next section provides a general overview of the CMP models and also describes several basic modeling characteristics that are shared between the models.

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2 Appendix B of MTC Resolution No. 3000, June 2011, MTC Checklist for Modeling Consistency for CMPs
OVERVIEW OF THE CMP TRANSPORTATION MODELS

The CMP models developed for Santa Clara County and currently in use have undergone a series of revisions and enhancements since the original CMP models developed by the Santa Clara County Center for Urban Analysis (CUA) in 1991. The CUA models were a subarea model with a focus on travel patterns in Santa Clara County for 385 zones with travel into and out of the county treated as volumes to and from approximately 100 external zones. This structure was essentially maintained until early 2001 when the 1099 zone MTC regional model, with an addition of about 100 zones in Santa Clara County, was used to develop forecasts for the BART extension to Santa Clara County feasibility study. Shortly thereafter, a complete restructuring of the CMP models, also referred to as the VTA Countywide model, was developed in 2003 using the 1454 zone MTC BAYCAST-90 regional model as the foundation with significant zone and network detail added within Santa Clara County. That version of the VTA Countywide models also included the addition of transit submodes in the mode choice models, as well as expansion of the model region to include 4 addition counties of Santa Cruz, Monterey, San Benito and San Joaquin. The current VTA Countywide model is quite similar to the models developed in 2003, and has had a variety of improvements to more accurately capture markets not modeled in the MTC BAYCAST-90 models (air-passerger trips, truck vehicle trips and bicycle assignments) and to reflect Federal Transit Administration (FTA) recommendations for purposes of New Starts ridership forecasting. The following sections describe the most important characteristics of the VTA Countywide models (referred to as the CMP model).

Transportation Analysis Zones (TAZ’s) — The current CMP model has a more refined zone system in Santa Clara County and San Mateo County than the MTC regional models. Additional zones were added to more accurately reflect and support the added roadway network and to provide more detail in transit rich corridors and dense central business districts. In all, an additional 1,122 zones were added in Santa Clara County, and 156 zones were added in San Mateo County. The new model maintains the use of MTC’s zone system in the remaining seven Bay Area counties, but enlarges the full model region and zones to include Santa Cruz, San Benito, Monterey, and San Joaquin Counties.

Highway Network and Transit Network — The roadway network used by the CMP model includes additional detail in both Santa Clara and San Mateo Counties. The current CMP model also includes detailed stop, station and route detail in the transit networks for San Mateo and Santa Clara Counties, yet maintains the MTC roadway and transit networks in the remaining Bay Area counties. The Association of Monterey Bay Area Governments (AMBAG) provided the basis for roadway networks in Monterey, San Benito, and Santa Cruz counties and the San Joaquin County COG provided roadways for San Joaquin County, however, the detailed networks were simplified to match the coarser zone structure in each of those four added counties. Express lane facilities, representing the MTC ‘Backbone’ express lanes system for
2040, were coded in the network with a toll facility indicator based on the highway corridor segment and the direction of travel. Differential toll facility codes were required in order to apply specific toll rates to optimize utilization of the express lanes to preserve level-of-service for free carpool users. A recent enhancement added to the CMP model is the explicit assignment of bicycle trips to the bicycle subnetworks. Bicycle travel speeds are a function of observed speeds collected using GPS-enabled devices and the mode choice models were revised to directly consider changes to bicycle travel times based on bicycle infrastructure improvements.

**Capacities and Speed** — The current CMP model incorporates the area type and assignment group classification system published by MTC in BAYCAST-90. Input free-flow speeds for expressways are slightly lower in the CMP models to more accurately match the travel time for the expressway segments during model validation and improve the assignment match of estimated to observed expressway volumes.

**Trip Purposes** — The current CMP model uses the same trip purposes used in the BAYCAST-90 model and uses additional trip purposes not modeled by MTC. CMP model trip purposes include the following:

- Home-based work trips
- Home-based shop and other trips
- Home-based social/recreation trips
- Non-home-based trips
- Air-passenger trips to SFO, San Jose Mineta and Oakland International airports,
- Home-based school: grade school, high school, and college trips
- Light, medium and heavy duty internal to internal zone truck trips

The CMP model uses MTC BAYCAST-90 trip generation equations for trip production and trip attraction functions for all trip purposes listed above. In order to address special markets not included in the MTC trip purposes, the CMP model includes several additional trip purposes beyond those modeled by MTC, including:

- Air-passenger trips to San Francisco International (SFO) Airport and San Jose/Mineta International Airport (SJC) and
- Light, medium and heavy-duty external truck trips

**Market Segments** — The CMP model adopts the BAYCAST-90 disaggregate travel demand model four income group market segments for the home-based work trip purpose in trip
generation, distribution and mode choice. In addition, the CMP model also maintains the three workers per household (0, 1 and 2+ workers) and three auto ownership markets (0, 1 and 2+ autos owned) used in the MTC worker/auto ownership models. Trips by peak and off-peak time period are also stratified in the trip distribution, mode choice and highway and transit assignment models.

**External Trips** — The CMP model uses a different approach for incorporating inter-regional commuting estimates than MTC. For external zones coincident with the MTC model, MTC interregional vehicle volumes were applied for base year 2000 and adjusted to the future by assuming a 1 percent growth rate per year. For external gateways from San Joaquin County and Santa Cruz, Monterey and San Benito Counties, the incorporation of those counties as internal modeled areas obviated the development of external vehicle volumes for those areas of the CMP models.

**Pricing** — The CMP model uses MTC pricing assumptions for transit fares, bridge tolls, parking charges, and auto operating costs as assumed in the current 2013 MTC Regional Transportation Plan (RTP) and Sustainable Community Strategies (SCS) update. All prices are expressed in year 1990 dollar values in the models. The CMP model also uses regional express lane toll charges for the AM and PM peak periods that are based on optimizing the level-of-service in the carpool lanes through an iterative process in the highway assignments. Depending on the level of utilization, these toll charges vary by direction, time of day and by specific corridor.

**Auto Ownership** — The current CMP model applies BAYCAST-90 for auto ownership models to estimate the number of households with 0, 1, and 2+ autos by four income groups in each traffic analysis zone. Walk to transit accessibility measures were incorporated in the auto ownership models consistent with MTC BAYCAST-90 to more logically associate low auto ownership households with transit services. The auto ownership models were last calibrated to match 2010 American Community Survey workers per household and auto ownership by county.

**Mode Choice** — The mode choice models for BAYCAST-90 include the use of nested structures for most trip purposes, however, explicit estimation of nested structures to consider transit submodes were not included in the model specification\(^3\). The CMP model adds a nesting structure for transit submodes of local bus, express bus, Bus Rapid Transit (BRT), light rail, heavy rail and commuter rail underneath the MTC BAYCAST-90 nested structures. Consistent with the BAYCAST-90, mode choice coefficients are preserved by constraining the model to the

\(^3\) A nested structure partitions the alternatives into groups (nests) of similarity. The groups can be further generalized into subgroups (subnests) and so on, which has the form of an inversed tree.
BAYCAST-90 parameters, except those in transit submode structure. While the CMP model includes a transit submode nest for Bus Rapid Transit (BRT), which is an emerging transit technology in the region, BRT is treated as a local bus mode primarily due to limitations from the combined frequency process in the transit travel time builder used in the CMP models.

**Peak Hour and Peak Periods for Highway Assignments** — The CMP model uses a three-hour peak period (6 AM to 9 AM) as the basis for determining drive alone, shared-ride, and transit travel times for input to the trip distribution and mode choice models. This was assumed since peak hour travel volumes tend to produce extremely congested conditions for forecast years producing unrealistic volume to capacity ratios and travel times, thus significantly overestimating forecast transit probabilities. The highway assignments produce AM and PM peak hour volumes, AM and PM peak period volumes (5 AM to 9 AM and 3 PM to 7 PM, respectively – each coincident with the time periods of operation for carpools), midday volumes (9 AM to 3 PM) and evening volumes (7 PM to 5 AM). The four time period volumes are then added together to develop daily vehicle volumes.

**Vehicle and Transit Assignments** — The current CMP model incorporates a methodology analogous to the MTC “layered,” equilibrium assignment process, which distinguishes standard mixed-flow lanes from high-occupancy-vehicle (HOV) lanes. The equilibrium assignment process used in the current CMP model is functionally equivalent to the MTC methodology. The CMP model includes additional vehicle classes in the highway assignments for park-and-ride vehicles and drive-alone and carpool toll vehicles.

Drive-alone and carpool toll vehicles for AM and PM peak periods are estimated using a toll model post-processor that estimates toll volumes based on a comparison of the non-toll and toll travel times and costs. This procedure assumes that toll choice occurs after the decision to choose auto versus transit has already been considered, and therefore does not influence transit mode choice. A toll choice constant for drive-alone and carpool modes was developed based on a calibration of toll volumes estimated by application of the toll model to the I-680 Express Lane and SR 237 Express lane facilities, and a comparison of estimated to observed express lane volumes. It should be noted that by 2035, in order to maintain the operational feasibility of implementing regional express toll lanes, it was assumed that only 3+ occupant carpools would be allowed to travel in the carpool lanes for free. This was assumed for all carpool facilities in the model region, regardless of the presence of express lanes.

In the current CMP model, transit passengers are assigned with a methodology analogous to that used by MTC, with separate assignments for each transit submode and access mode. Assignments are also performed separately for peak and off-peak conditions. A total of eighteen separate transit assignments are run to cover the full combination of transit submode and access modes as well as to estimate transit ridership for air-passengers and external home-
based work transit trips from the San Joaquin (ACE, BART and San Joaquin SMART bus) and AMBAG (Caltrain and Monterey Express) model regions.

**Model Validation with 2013 Traffic and Transit Volumes** — The current CMP model is validated to year 2013 traffic volumes for city jurisdiction level and county-level vehicle-miles stratified by facility type. Four time periods are validated: AM peak hour and peak period (5 AM to 9 AM) and PM peak hour and peak period (3 PM to 7 PM). Daily transit boardings were validated for the year 2013 at the system level for major regional transit operators (Caltrain, BART, MUNI, VTA and AC Transit) and at the route level for VTA light rail, local bus and express bus routes.

**TRANSPORTATION MODEL AND DATABASE MAINTENANCE**

It is critical to maintain and update a transportation model and database on a regular basis. Elements of the CMP model are updated on an annual basis subject to availability of data used to refine different components of the models. For example, the base year of the CMP Model was changed from 2000 to 2010 and revalidated in 2013 with the availability of new traffic and transit count data. VTA has recently updated the CMP models to reflect new 2010 Census data, data from the American Community Survey as well as incorporating the new ABAG P 2013 data sets. This section describes the local data sources that are used in updating the model as well as the updating process itself.

**LOCAL DATA**

The CMP annual monitoring process provides a significant amount of local data that is used to update the CMP model. The two main sources of local data are described below.

**Observed Traffic Volumes** — The VTA CMP and Member Agencies prepare regular reports of actual traffic volumes at CMP System intersections for the PM peak hour conditions; the CMP, as part of the monitoring program, reports traffic volumes at selected freeway locations for both AM and PM peak period (3-hour) conditions. VTA has recently started to collect bicycle and pedestrian data at CMP intersections for the PM peak hour, which will be used to validate the CMP models. MTC and Caltrans also provide observed data on freeways and state highway for total volumes as well as carpool volumes. These data are used to update the countywide database of observed traffic conditions in order to verify relationships and parameters included in the CMP model.

**Land Use Trip Assumptions** — As part of the Land Use Impact Analysis Program, Member Agencies provide a summary of approved projects and major planning decisions, such as General Plan Amendments, made during the past year. Annual data for the Land Use Impact Analysis Program is submitted in terms of housing and development square feet by use. This
data is used by the CMP to develop population and employment changes for use in refining at a
more local level the socioeconomic data allocations ABAG provides at the census tract level.
VTA also uses parcel data purchased from private companies to verify the base year 2010 and
2013 land use data employment values, based on application of job rates to development
square footage by land use classification.

REGIONAL DATABASE AND MODELING UPDATES

CMP Statute requires that the CMP model remain consistent with the ABAG regional database
and MTC model. To achieve this, the CMP model is updated on an on-going basis to remain
consistent with the regional database and model. Six specific update efforts are described
below.

Santa Clara County Land Use Database — To facilitate future planning, Member Agencies and
VTA staff have developed an independent, locally generated, and managed land use database.
This database will provide information for use in the CMP as well as help to make future ABAG
projections more accurate. The database was initialized from parcel data obtained from the
Santa Clara County Assessor, and will be improved as Member Agencies verify their existing
land use data and as approved projects are added as part of annual land use data submittals.

As Member Agencies complete their verification, the land use database will represent the most
accurate, consistent database for current and near-term land use. The database will assist
ABAG by providing accurate inputs to floor area, housing, and acreage inventories for their
projections. This database is available in the CMP’s Geographic Information System (GIS). VTA
has recently updated the model databases to reflect the recently adopted ABAG P 2013 data
sets.

2010 Census Data Analysis — The Census Bureau, through the American Community Survey,
has released 2010 data that was used to update the CMP models for auto ownership, trip
distribution and mode choice. VTA has recently recalibrated the CMP models to reflect data
from the 2010 Census and American Community Survey.

MTC Transportation Model Changes — MTC periodically issues data, analysis, and projections
of information pertinent to the CMP model and assumptions, such as projections of pricing
assumptions such as auto operating costs and parking costs. The CMP model and database are
modified as needed to remain consistent with those developed by MTC for its model system,
which are typically distributed when the MTC Regional Transportation Plan in updated.

ABAG Data and Projections — The most recent ABAG projections, P2013, has been updated
and incorporated into the CMP model databases.
Parking Facilities and Pricing Inventory — MTC maintains an inventory of peak and off-peak parking charges at the zone level. A current and complete inventory of parking facilities and pricing is required for the internal zone system for the CMP model. The CMP model is consistent with the most recent MTC parking charges used in the RTP 2040 update, Plan Bay Area.

GEOGRAPHIC INFORMATION SYSTEMS MAINTENANCE

VTA maintains model database information in Geographic Information System (GIS) layers, or coverages. Layer information includes roadway and transit networks, bus stop and transit station locations, land-use information including parcel level data, General Plan information, key production and attraction features such as schools, shopping centers, government offices, major employers and employment centers, parks, water features, and open spaces. These GIS layers are periodically updated and refined.

COMPLIANCE AND CONFORMANCE

To be in conformance with the Congestion Management Program, Member Agencies must ensure that their models are consistent with the CMP model using the CMP Local Model Consistency Guidelines. VTA encourages the use of the CMP model by the local Member Agencies in order to ensure consistency, however, member agencies are free to develop their own local models but will be required to produce documentation to demonstrate consistency with the CMP models.

VTA must also ensure that the CMP models are consistent with the MTC regional models. To demonstrate compliance and conformance, MTC has developed a checklist of outputs that are to be produced from the CMP models and compared to a comparable MTC regional forecast year model run. CMP has prepared the checklist outputs from the most recent 2040 model runs and will provide the results in a separate submittal to MTC.
CHAPTER 7 | LAND USE IMPACT ANALYSIS ELEMENT

This chapter describes VTA’s CMP Land Use Impact Analysis Program. The chapter includes the following sections:

• Statutory Requirement and VTA Policy
• Development of the CMP Land Use program
• Elements of the CMP Land Use Program
  o Development Review Program
  o Land Use and Transportation Integration Partnerships
  o Community Design and Transportation (CDT) Program
  o CMP Land Use Database
• Other VTA Activities Related to Land Use
  o VTA Activities Related to Energy and Air Quality
  o Joint Development Program
• Relationship to Regional Initiatives
  o Priority Development Area (PDA) Investment & Growth Strategy
  o Plan Bay Area and SB 375
  o MTC Resolution 3434 TOD Policy
  o AB 1358 – Complete Streets Act
• Compliance and Conformance

STATUTORY REQUIREMENT AND VTA POLICY

An underlying reason for merging the Santa Clara County Transit Agency and the Santa Clara County Congestion Management Agency and creating VTA was to better integrate land-use and transportation decision-making. Both the Transit Agency and the Congestion Management Agency were engaged in various land use and transportation integration efforts, and it was intended that these efforts be enhanced under a combined agency. This emphasis continues to the present, as one of the business themes of VTA’s 2017-2022 Strategic Plan includes the integration of transportation and land use.

The CMP statute (California Government Code: 65089 (b) (4)) requires that the CMP include:
“A program to analyze the impacts of land use decisions made by local jurisdictions on the regional transportation system, including an estimate of the costs associated with mitigating those impacts.”

The Santa Clara County CMA Governing Board discussed the land use impact analysis program requirement of the CMP Statute in detail during development of the 1991 CMP. It realized that the effective integration of land use and transportation had to occur on multiple levels, and that an advocacy role was also needed to influence policy development and community form. The Governing Board adopted a two-stage approach to the land use program. These stages were:

Stage I — Member Agencies utilize a consistent methodology for evaluating the impact of specific development projects on the CMP System and submit a summary of all specific projects approved to the agency as part of the CMP’s annual monitoring process; the agency adds approved development projects to the countywide model and performs a cumulative transportation analysis for informational purposes.

Stage II — State law (AB 1619) vests the entity responsible for the CMP with responsibility for that county’s countywide transportation plan. As part of VTA’s countywide long-range transportation planning process, VTA and its Member Agencies developed land use policies and called for the creation of a new program to influence land use polices and provide incentives for planning future growth in a manner that minimizes the potential negative impacts of development on the countywide transportation system. As a result, the Community Design and Transportation (CDT) Program was created and adopted by the VTA Board of Directors in 2002 as its primary program for integrating transportation and land use. By 2004, all Member Agencies had endorsed the program through formal Council/Board Actions.

The CDT Program includes a comprehensive toolkit for Member Agencies to use in all aspects of transportation and land-use planning, and in developing both public and private development projects. It includes a foundation of key concepts, guiding principles, and specific practices and actions that Member Agencies can use to improve community form and the operation of the transportation systems.

The Stage I Land Use Impact Analysis Program was initiated as part of the 1991 CMP. The Stage II Land Use Program was developed as part of the Valley Transportation Plan 2020 adopted in 2000, and was augmented with the VTA Board adoption of the CDT Program in November 2002. Subsequent updates to VTP have continued to emphasize the importance of the CDT Program.
DEVELOPMENT OF THE CMP LAND USE PROGRAM

The CMP statute clearly intends that local jurisdictions retain their legal authority to make land-use decisions. However, the Statute also makes cities and counties more accountable for the impacts that their land use decisions have on transportation facilities than they have been in the past, both within and outside their boundaries.

Under the CMP Statute, local land use decisions may not degrade Auto Level-of-Service (LOS) below the adopted standard for VTA’s CMP Roadway Network (LOS E). If a LOS standard violation is found during the monitoring process, the Member Agency within whose boundaries the violation occurs will be responsible for taking corrective actions or the Member Agency could be found in nonconformance with the CMP.

One potential problem with a strict interpretation of the CMP Statute is that it could encourage new development in outlying areas where there are large tracts of undeveloped land, and where the transportation system is relatively underutilized; that is, where LOS violations are least likely to occur and the impacts of development can be absorbed without triggering mitigation measures. This interpretation of the CMP Statute could be problematic for cities working carefully to manage urban development by encouraging infill development and reducing sprawl. Recognizing this as a potential impediment for focusing growth and infill development in major transportation corridors and cores, the State Legislature has amended the CMP statutes to allow the preparation of Deficiency Plans (called Multimodal Improvement Plans in the VTA CMP) and designation of Infill Opportunity Zones (IOZs).

The VTA CMP continues to promote the increased use of alternative transportation modes, such as transit, bicycling, and walking. In addition to encouraging infill housing and employment growth, transit-oriented development, and mixed-use development in core areas and around major transit facilities it promotes the removal of regulatory barriers. It also underscores the need to balance level of service standards for traffic with the need to build infill, transit-oriented and mixed-use developments within walking distance of transit facilities, downtowns, and town centers. The VTA CMP seeks to give greater flexibility to local governments to balance these sometimes competing needs.

LONG-RANGE OBJECTIVES

The long-term objective of the CMP Land Use Element is to develop land use and transportation initiatives that improve transportation conditions, community livability, and air quality—including the reduction of greenhouse gas emissions—while supporting community goals. For example, many of Santa Clara County’s larger cities have relatively mature commercial and residential centers. In these cities, the planning emphasis has shifted from new land development to planning for balanced development within already developed centers—a form of urban revitalization.
These cities are pursuing programs of infill, adaptive-reuse, renewal, mixed-use development, and increasing their density and housing supply. This is often occurring in areas that were formerly devoted to low-density industry.

Smaller and less intensively developed cities may have different planning goals than the larger cities. However, these smaller cities are equally interested in planning objectives that ensure appropriate development, maximize the use of transportation investments and, to the extent possible, prevent unwanted traffic.

In addition to specific land-use planning efforts, VTA, the County and some cities have aggressively pursued and built new transportation facilities that could have a major impact on land-use plans. For example, the light rail system and the Caltrain line offer excellent opportunities for new transit-oriented mixed-use development. VTA is also in the process of bringing BART service to Santa Clara County, which will provide additional opportunities for transit-oriented development. In the long run, transit-oriented development projects in these transit corridors can be expected to optimize the overall benefit of transportation investments.

Application of the CMP Statute in Santa Clara County must recognize the importance of these new land use and transportation initiatives (urban revitalization and transit oriented development) and encourage these initiatives in the future. The long-range (25-year) transportation plan for Santa Clara County, Valley Transportation Plan (VTP) 2040 prepared by VTA, reaffirms VTA’s commitments to land use programs and investment strategies. The CDT Program is an integral part of this plan, and land use and transportation integration will remain a key component in future updates of the long-range transportation plan for Santa Clara County.

VTP 2040’s objective for integrating transportation and land use through the CDT Program includes the following aspects:

- Designing and managing the transportation system to support concentrated development in selected locations
- Reducing energy use and greenhouse gas emissions
- Providing connectivity in road, bike and pedestrian networks so travelers can choose among many routes and modes
- Using land efficiently and supporting concentrated development with strategies including land use intensification and reuse, transportation investments that minimize right-of-way requirements and limiting land area dedicated to surface parking
- Developing an urban vision that creates sense of place, human scale buildings, vibrant public spaces and as many activities as possible within easy walking distance of each other and transit stops
• Promoting street design standards that consider function and land use context, and providing interconnected multimodal options

• Supporting investments concentrated within the CDT Program’s Cores, Corridors, and Station Areas

• Promoting robust partnerships with member and regional agencies

RESEARCH EVIDENCE ON THE IMPORTANCE OF CONCENTRATED DEVELOPMENT AROUND TRANSIT

Recent research at the national, state and local level has demonstrated the transportation benefits of concentrated development near transit. The following is a brief snapshot of key highlights of this research relevant to VTA’s efforts in these areas.

On the residential side, a 2008 Transit Cooperative Research Program study (TCRP Report 128) noted transit-oriented development (TOD) households typically own fewer cars because they have smaller households and because they may forgo extra cars due to transit’s proximity. The study found that TOD households are also almost twice as likely to not own a car, and own almost half the number of cars of other households. In addition, over a typical weekday period, the study found that 17 surveyed TOD housing projects averaged considerably fewer vehicle trips than estimated by the Institute of Transportation Engineers manual.¹ A study by researchers at the University of California Transportation Center (UCTC) in 2009 looked at parking supply versus demand at 31 multi-family housing projects near rail transit stations in the East Bay and the Portland, Oregon region, and found that parking supply exceeded demand by 25% in the East Bay and 30% in Metro Portland.² And a collaborative research project conducted by San Jose State University and VTA in 2010 indicated that residential TOD properties near rail stations in Santa Clara County may be ‘over-parked’, with supply exceeding demand by more than 20 percent on average.³

On the employment side, the literature review included in TCRP Report 128 notes that the location of jobs accessible by transit influences transit ridership. The report notes that “Systems that generate the highest commute ridership have a high percentage of regional jobs accessible by fast transit. For work trips, proximity to rail stations is a stronger influence on transit use than land

use mix or quality of walking environment. Thus, the most effective strategy to increase TOD ridership is to increase development densities in close proximity to transit. Employment densities at trip ends have more influence on ridership than population densities at trip origins. It is critical to locate jobs near transit in order to attract households to TODs.\textsuperscript{4}

**ELEMENTS OF THE CMP LAND USE PROGRAM**

The Land Use Impact Analysis Program was implemented as part of the 1991 CMP, was modified in 1997, and has been augmented with the development of the Community Design and Transportation Program. Member Agencies have complied with the requirements of the Land Use Impact Analysis Program annually from 1991 to the present.

**DEVELOPMENT REVIEW PROGRAM**

VTA’s Development Review Program encompasses two separate, yet interrelated efforts to review and comment on development and transportation projects occurring in and adjacent to Santa Clara County: 1) the review of environmental documents and development proposals submitted by Member Agencies; and 2) the review of Transportation Impact Analysis (TIA) reports for proposed projects meeting the Congestion Management Program (CMP) TIA Guideline requirements.

The objectives of the Development Review Program include improving land use/transportation coordination, promoting alternative travel modes, and encouraging a balanced approach to addressing congestion.

There are three tracks under which development review occurs:

1. Projects that require a Transportation Impact Analysis (TIA) Report per CMP guidelines, but do not require environmental clearance. For this type of project, VTA may receive a stand-alone TIA from a member agency, and the review requirements are defined by VTA Congestion Management Program standards.

2. Projects undergoing environmental clearance per the California Environmental Quality Act (CEQA). For this type of project, the public notification and review requirements are defined by the CEQA as well as member agency and VTA standards. A TIA is typically prepared during the environmental process, and the environmental document usually includes the TIA as an appendix.

3. Additional referrals sent to VTA at the discretion of the Member Agency, such as a site plan review or an administrative draft of a planning document. For these referrals, the process and deadlines are established by agreement between VTA and Member Agency staff.

\textsuperscript{4} TCRP Report 128.
VTA staff prepares a quarterly report summarizing Member Agency projects that are submitted to VTA for review, comments submitted to Member Agencies by VTA staff, as well as projects that VTA previously commented on which were approved during the past quarter and any responses to VTA comments or conditions of approval related to transportation.

2014 TIA Guidelines Update and Relationship to Development Review

VTA requires that Member Agencies analyze the potential transportation impacts of their land use decisions on the CMP System using the Transportation Impact Analysis (TIA) Guidelines adopted by the VTA Board of Directors for all development projects that generate 100 or more net new A.M. or P.M. peak-hour trips. As part of these analyses, Member Agencies must evaluate project impacts and effects on the multimodal transportation, including roadways, transit, and pedestrian and bicycle facilities.

Over the 2012-2014 timeframe, VTA engaged in a comprehensive update of the TIA Guidelines document in response to a number of trends and changes affecting transportation and land use planning in the county and statewide:

- Progress on implementation of Senate Bill (SB) 375 and the Sustainable Communities Strategy with the corresponding emphasis on reductions in automobile trips and Vehicle-Miles-Traveled (VMT) (see “Relationship to Regional Initiatives” below);
- The 2010 updates to the California Environmental Quality Act (CEQA) Transportation checklist, which allowed agencies more flexibility in determining how to perform transportation analysis;
- The release of the 2010 Highway Capacity Manual (HCM), including new Multimodal Level of Service measures (see discussion in Chapter 4);
- Additional emphasis on Complete Streets policies in General Plan Circulation Elements (see “Relationship to Regional Initiatives” below);
- A trend for major development projects in Santa Clara County to pursue aggressive reductions in automobile trip generation (see Chapter 5).

VTA staff began this update process by identifying goals and desired outcomes as well as key areas to address, and gathering input on these topics from VTA’s Member Agencies and other stakeholders. VTA conducted an extensive outreach process of over two years incorporating input from:

- Transportation/engineering and planning staff through the Systems Operations & Management (SOM) and Land Use / Transportation Integration (LUTI) Working Groups of the VTA Technical Advisory Committee (TAC);
An ad hoc TIA Guidelines Update Technical Working Group (TWG) consisting of Member Agency and Caltrans representatives, who provided input through two web surveys and three in-depth meetings in October 2013, January 2014, and April 2014;

VTA Advisory Committees and the Congestion Management Program and Planning Committee (CMPP);

Advocacy, business, development, and policy groups active in Santa Clara County; and

Major transportation and environmental consulting firms who work in Santa Clara County.

Two of the most important goals of the TIA Guidelines Update were to 1) Emphasize the reduction of automobile trips, and 2) Improve the analysis of alternative modes.

To address the first goal, the updated TIA Guidelines include a new requirement to include a 2-page Auto Trip Reduction Statement (ATRS) at the beginning of each TIA to highlight measures by the project to reduce auto trips, in a format easy to read and understand for decision-makers and the public. VTA also added new options for projects to document trip reductions, including Target-Based Reductions for projects that establish a TDM program with a target for auto trip reduction, monitoring and enforcement; and Peer/Study-Based Reductions when studies of similar projects or similar sites occupied by the project applicant demonstrate comparable trip reductions through survey results or other data.

To address the second goal, VTA updated the requirements for pedestrian, bicycle and transit modes to remove the requirement to analyze demand and capacity except for projects that generate unusually large numbers of trips on these modes. For pedestrian and bicycle analyses, the updated TIA Guidelines shift to a Quality of Service (QOS)-based approach, with the specific methodology at the discretion of the Lead Agency. For transit analysis, the updated TIA Guidelines focus on transit delay and transit access/facilities. See Chapter 3 for more information on Pedestrian/Bicycle QOS and Transit Delay as Multimodal Performance Measures.

The CMP TIA Notification and Review Process is illustrated by the flow chart in Figure 7.1. The complete process is described in the CMP TIA Guidelines.

**LAND USE AND TRANSPORTATION INTEGRATION (LUTI) PARTNERSHIPS PROGRAM**

VTA initiated the Land Use and Transportation Integration (LUTI) Partnerships Program in response to a series of discussions with VTA Advisory Committees, the Congestion Management Program and Planning Committee (CMPP) and the Board of Directors in 2014. The purpose of
FIGURE 7.1 | TRANSPORTATION IMPACT ANALYSIS (TIA) NOTIFICATION AND REVIEW PROCESS

- Lead Agency submits TIA Notification Form for projects with 100+ net new peak hour trips

- VTA and other interested agencies comment on TIA notification within 15 calendar days

- Lead Agency submits TIA at least 20 calendar days prior to expected project hearing date

- VTA and other interested agencies respond with comments on TIA report within 15 calendar days

- Lead Agency responds to comments on TIA as appropriate

- Lead Agency staff analyzes project and makes recommendation

- Lead Agency decision-making body takes action on project

- Project approved with condition(s) or Project not approved

- Lead Agency encouraged to send VTA any conditions imposed on project

- VTA reports on development activity (VTA comments and approved project conditions)

- Lead Agency Action

- VTA or other Agency Action
the program is to build on existing VTA initiatives to enhance VTA’s involvement in land use decision-making. A key objective is to create opportunities for VTA and Member Agencies to work together earlier in the process of planning and development to produce more effective and meaningful collaborative outcomes. This relationship is mutually beneficial; VTA’s transportation investments greatly influence many aspects of city livability and sustainability, and the local land use decisions influence the effectiveness of the various types of travel (e.g., car, walk, bike, and transit) - and both efforts attain greater value working together through each phase of development.

VTA staff offers three broad categories of outreach and assistance to Member Agencies:

- Knowledge-building: trainings, blog series, policy discussions;
- Research: development tracking and reporting on trends;
- Technical assistance: providing project-based expertise on land use, urban design, and transportation issues.

Beginning in late 2015, VTA began highlighting major areas of development throughout the county at presentations to VTA Committees and the Board, in collaboration with Member Agency staff. A key component of this effort is to identify transportation solutions to address the cumulative impacts and effects of growth on the multimodal transportation system, ultimately feeding back into VTA’s long-range transportation planning efforts.

COMMUNITY DESIGN AND TRANSPORTATION (CDT) PROGRAM

The Community Design and Transportation (CDT) Program was developed to provide a unified framework for VTA’s various land use activities. In 2002, the VTA Board of Directors adopted the CDT Program as its primary program to integrate transportation and land use, and adopted the *CDT Manual of Best Practices for Integrating Transportation and Land Use*. Within the next two years, every VTA Member Agency formally endorsed the CDT Program through Board or Council action, pledging to work to implement the guidelines laid out in the CDT Manual in future development. One key element of the CDT Program is the Cores, Corridors and Station Areas (CCSA) framework, which shows VTA and Member Agency priorities for supporting concentrated development in the County. The CCSA framework continues to play an important role in VTA land use activities such as the Development Review Program and VTA’s participation in regional initiatives such as Plan Bay Area and the PDA Investment & Growth Strategy (see below for more details about these programs).
The CDT Program has several purposes, including providing a framework where VTA can:

- Influence the design and programming of developments as early as possible in the development process.
- Enhance the effectiveness and efficiency of VTA projects
- Be an advocate for planning and design practices that enhance community livability
- Encourage an increase in non-greenhouse gas-emitting mode shares
- Assist local jurisdictions with planning and developing projects
- Foster joint planning and project development efforts, have more meaningful interaction and coordination with cities and the county regarding land use policy
- Provide leadership through policy, planning, design, and technical innovations
- Assist member agencies with planning, design, research, education and outreach involving the interactions between transportation systems, land use and urban design
- Foster a favorable policy setting to assist decision-makers with supporting the CDT Program, and provide a venue for improved dialogue and partnerships with all stakeholders.

Partnerships and cooperation are fundamental requirements for the long-term effectiveness of the program. To be successful, the CDT Program will work to keep all stakeholders—VTA, member agencies, developers, the business community, and the public—focused on the cumulative benefits of implementing best practices. While immediate payoff opportunities may occasionally surface, incorporating CDT best practices within each new project and implementing incremental changes continually over time will yield the greatest returns. This requires active commitment from both member agencies and VTA.

VTA intends to update the CDT Manual over the coming years to reflect the most recent research and best practices in integrating transportation and land use. This effort will be undertaken in partnership with Member Agencies and other VTA stakeholders to ensure that the program is as useful and effective as possible.

**CMP LAND USE DATABASE**

One of the most critical aspects of the Land Use Program is gathering information on existing and planned land uses throughout the county. VTA maintains a uniform database of planning-level land use information, which was developed from 1997 to 1999 and is revised annually by Member Agencies as part of the annual CMP monitoring process.
In addition, the CMP land use database assists Member Agencies in their efforts to revise land use forecasts produced at the regional level. These regional forecasts are used in the MTC’s Regional Transportation Model and must be used in the CMP countywide transportation model (according to the CMP statute). The CMP land use database structure has been designed to be consistent with the regional agency database in order to facilitate improved information exchange.

Hence, in order to maintain the land use database, the second requirement of the Land Use Impact Analysis Program is that Member Agencies provide VTA with data on two categories of land use decisions:

**Approved Projects** – Site-specific land use actions that have a sponsor and that have been approved for development according to a defined schedule; and

**Major Land Use Planning Changes** – Changes in general land use designations for which project-level approval decisions will be required before any construction can begin. Major land use planning decisions include General Plan Amendments, specific plans, area plans, and major zoning revisions.

**OTHER VTA PROGRAMS AND INITIATIVES RELATED TO LAND USE**

**VTA ACTIVITIES RELATED TO ENERGY AND AIR QUALITY**

Through partnerships between VTA and its partner agencies, VTA has initiated several activities to support the conservation of natural resources, reduction of greenhouse gases, prevention of pollution and use of renewable energy and materials. These activities also support existing legislative mandates such as AB 32 and SB 375.

Principles that inform VTA’s approach to energy and air quality include:

- Look toward existing and new technology for applications in VTA operations
- Place high emphasis on demand for fuel efficient and alternative fuel vehicles
- Encourage private and public organizations to pursue green actions
- Support the development of locally produced green energy sources

VTA’s activities in these areas include:

- Proactively implementing VTA’s Sustainability Program
- Exploring support from private sector development through its capital and on-going operating programs
• Supporting regional and local advocacy efforts related to land use and transportation integration
• Improving transit by focusing on key corridors where local jurisdictions are committed to land use intensification and on first/last mile connections
• Supporting State and local building codes that require LEED certified construction such as insulation, energy efficient design and passive and active solar design elements

VTA JOINT DEVELOPMENT PROGRAM
VTA envisions its station areas and transit corridors as vibrant, prosperous community assets that create a strong sense of place for transit, pedestrians, and the surrounding community, and are destinations in their own right.

VTA’s Joint Development Program furthers the VTP land use goal and objectives as well as the objectives of the CDT Program. The program was adopted by the VTA Board in January 2005 and is designed to secure the most appropriate private and public sector development of VTA-owned property at or adjacent to transit stations and corridors. The VTA Board of Directors adopted a revised Joint Development Policy and Implementation Plan in April 2009. The revised Joint Development Policy provides the appropriate framework to maximize the respective economic values of each real estate asset through consensus-driven, site-appropriate development that also increases transit ridership, creates vibrant community assets and enhances the long-term life of VTA’s facilities.

The Joint Development Policy provides a framework for creating and pursuing the highest and best opportunities for development around station areas and corridors. The policy is intended to establish guidelines and procedures for identifying such opportunities to optimize return on investment to VTA. VTA’s efforts related to Joint Development also include coordination with local jurisdictions in station area land use planning to establish development patterns that enhance transit use.

RELATIONSHIP TO REGIONAL INITIATIVES
VTA’s efforts regarding land use and transportation integration work together with and reinforce initiatives that are occurring at the regional level in the San Francisco Bay Area.

PRIORITY DEVELOPMENT AREA (PDA) INVESTMENT & GROWTH STRATEGY
To encourage a shift towards higher density growth patterns, protect the environment, reduce vehicle miles traveled, and encourage investment in transit, ABAG, along with BAAQMD, MTC, and the Bay Conservation and Development Commission (BCDC) established the FOCUS Program in 2006 and 2007. FOCUS established Priority Development Areas (PDAs) with
incentives for transit oriented development and provided a bridge between local land use decisions and regional development. As part of the update of the Bay Area’s Regional Transportation Plan, MTC and ABAG initiated the Priority Development Area (PDA) Investment & Growth Strategy as the successor to FOCUS. Over the past several years, VTA has been working with its Member Agencies, advocacy groups and other interested parties to craft a PDA Investment & Growth Strategy that will be a useful tool to identify needs and resources for the PDAs and allow cities to target improvements to these areas. The first report was completed in spring 2013 and was adopted by the VTA Board of Directors in June 2013.

On May 17, 2012, MTC and ABAG adopted the One Bay Area Grant (OBAG) program to distribute federal funds for transportation projects. As part of OBAG, MTC and ABAG adopted general programming policies for the distribution of funds, including a requirement that at least 70% of OBAG investments be directed to PDAs for projects located either in, or serving the PDAs. For future grant cycles, funding may be distributed to those local agencies that have PDAs. With each new round of OBAG funding, VTA will work with its partners to produce a PDA Investment & Growth Strategy Report that will highlight these needs and identify the resources required to address growth.

Through the CDT Program, which preceded FOCUS and the PDA Investment & Growth Strategy, VTA and its member agencies have already made a commitment to developing communities that have focused development served by transit. While several good examples of this type of development have been built in Santa Clara County and more are currently under construction, much work remains to be done. The coming updates of the CDT Manual will assist Member Agencies in these efforts. The majority of areas in the CDT Program Cores, Corridors, and Station Areas framework are included as PDAs in the PDA Investment & Growth Strategy, and some Santa Clara County cities have had other areas designated as PDAs. These locations will be supported by technical and financial assistance from both ABAG and MTC to help plan and develop into complete communities based on the goals of transit connectivity, housing availability and economic vitality.

**PLAN BAY AREA AND SB 375**

In July 2017, MTC and ABAG adopted ‘Plan Bay Area 2040,’ which includes the region’s Sustainable Communities Strategy and 2040 Regional Transportation Plan. Plan Bay Area marks the Bay Area’s first long-range transportation plan to meet the requirements of California’s 2008 Senate Bill 375 (Steinberg), which requires each of the State’s 18 metropolitan areas to reduce greenhouse gas (GHG) emissions from cars and light trucks. Under SB 375 each region must develop a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy (APS) that promotes compact, mixed-use commercial and residential development that is walkable and bikeable and close to mass transit, jobs, schools, shopping, parks, recreation and other amenities.
The land use distribution of Plan Bay Area was developed to meet performance targets based on SB 375:

- Help the region achieve its GHG emissions reduction target of reducing per-capita CO2 emissions from cars and light-duty trucks by 7 percent by 2020 and by 15 percent by 2035; and
- House 100 percent of the region’s projected 25-year population growth by income level (very-low, low, moderate, above-moderate) without displacing current low-income residents.

To help achieve these goals, the 2017 Plan Bay Area envisions 80% of all new housing and 66% of all new jobs to be located in PDAs.

VTA, as the Congestion Management Agency for Santa Clara County, was actively involved in the development of the SCS and the RTP and served as a liaison between the regional agencies and VTA’s Member Agencies in these efforts. Through VTA’s own initiatives including the CDT Program, Land Use Impact Analysis Program, and Joint Development Program, VTA has long supported the goal of integrating land use and transportation planning that the SCS and RTP strives to achieve. VTA is committed to supporting local and regional efforts intended to give people more transportation choices, create more livable communities and reduce energy consumption and the pollution that causes climate change.

**MTC RESOLUTION 3434 – REGIONAL TRANSIT EXPANSION PROGRAM AND TOD POLICY**

As part of the 2001 update to the Regional Transportation Plan (RTP), MTC developed an associated Regional Transit Expansion Program (RTEP) that identified a list of high-priority rail and express/rapid bus improvements to improve mobility and enhance connectivity throughout the Bay Area. MTC adopted a Transportation and Land Use Platform that calls for supportive land use plans and policies to support transit expansions in Resolution 3434. In 2005, MTC amended Resolution 3434 to include a Transit-Oriented Development Policy that establishes specific housing thresholds for these transit extensions, requires station area plans, and establishes corridor working groups.

One transit extension project in Santa Clara County is identified in the MTC Resolution 3434 TOD Policy – the BART extension from Fremont to San Jose/Santa Clara. The TOD Policy calls for a minimum threshold of 3,850 housing units per station area, averaged for the corridor starting from the existing end station (Fremont) to the end of the extension (Santa Clara). The TOD Policy specifies that to meet the corridor level thresholds, within a half mile of all stations a combination of existing and planned land uses must meet or exceed the overall corridor threshold for housing. New below-market housing units will receive a 50 percent bonus toward
meeting the corridor threshold (i.e., one planned below-market housing unit counts for 1.5 housing units for the purposes of meeting the corridor threshold).^5

VTA, as the sponsor for the BART extension project to Milpitas, San Jose, and Santa Clara, is actively working with the cities along the corridor and other stakeholders to plan for future housing and employment intensification, station access needs, pedestrian- and bicycle-friendly design, and infrastructure improvements in the vicinity of the six stations in the BART Silicon Valley extension. As of 2017, station area planning efforts have been completed for Milpitas Station, Santa Clara Station, and Diridon Station in San Jose. Planning efforts are also ongoing for the Berryessa Station and the Alum Rock Station in San Jose, involving coordination between VTA, the City of San Jose, CommUniverCity, San Jose State University, several neighborhood associations, and local land owners. VTA is also initiating a BART Phase II Transit-Oriented Development Strategy Study to develop updated and implementation-focused TOD strategies for the Alum Rock, Downtown San Jose, and Santa Clara Stations.

**AB 1358 - COMPLETE STREETS ACT**

The California Complete Streets Act of 2008 requires counties and cities making revisions to the circulation element of their general plans from January 2011 onward to plan for a balanced, multimodal transportation network that meets the needs of all users of the roadways. These users include bicyclists, pedestrians, motorists and persons of all ages and abilities. The intent of Complete Streets is to provide multimodal networks that are safe, convenient and well maintained with the goals of reducing greenhouse gas emissions and vehicle miles traveled and improving public health.

VTA and its member agencies support this initiative and VTA is currently working on a variety of Complete Streets efforts that will complement the update of the CDT Program. These efforts will assist member agencies in planning, designing and implementing projects that include the following key elements:

- Multimodal design – Incorporating street designs that accommodates all travel modes where appropriate
- Capacity/Continuity – Maximizing efficient use of the roadway and implementing consistent street designs on corridors that travel through multiple cites
- Technology – Using technology to improve safety and roadway operations
- Connectivity – Improving access for all transportation modes to major destinations
- Maintenance – Including plans for preserving the multimodal networks

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As a part of VTA’s Complete Streets efforts, VTA is currently leading three Complete Streets corridor studies in coordination with member agencies, along the Story-Keyes, Tasman, and Bascom corridors.

**COMPLIANCE AND CONFORMANCE**

Member Agencies provide data to VTA annually in the CMP Monitoring Report following the process described in the CMP Monitoring and Conformance Requirements. The data provided includes all approved development projects and major land use planning changes made during the past year. This data is used to update the CMP countywide transportation model. In order to conform to the CMP, Member Agencies must submit the Annual Land Use Monitoring Report to VTA for the year ending June 30, by December 1 of each year.

When VTA’s cumulative analysis of all approved projects produces a finding of potential nonconformance caused by project-related trips on the CMP System, the Member Agency or Agencies will be advised that nonconformance – the actual violation of Auto LOS Standards on an intersection or road segment of the CMP System – is imminent. Under those circumstances, the Member Agencies may be required to identify strategies to maintain conformance. These strategies will affect projects that have not yet been approved that could further degrade the LOS on the same intersection or road segment. Member Agencies may propose to add mitigation measures, to defer approvals, or to prepare Multimodal Improvement Plans that contain system-wide or multimodal improvements.

If the analysis of a land use planning decision shows that the proposed land use changes may contribute to a future violation of Auto LOS standards, subsequent reports must demonstrate that future land use plans and/or transportation improvements will prevent LOS violations, or that an approved Multimodal Improvement Plan will be applied to achieve systemwide improvements.
CHAPTER 8 | CAPITAL IMPROVEMENT PROGRAM

This chapter describes Santa Clara County’s CMP Capital Improvement Program (CIP). It contains the following sections:

- Introduction
- Capital Improvement Program Funding

INTRODUCTION

The Capital Improvement Program (CIP) is a list of capital projects designed to improve transportation conditions and air quality in Santa Clara County. The CIP describes major transportation projects proposed by Member Agencies and Caltrans and includes projects funded by a variety of funding sources. The CIP does not include transit projects funded solely through Federal Transit Administration (FTA) formula funds (Sections 5307 and 5309) or Transportation Development Act (TDA) Sections 4 and 4.5 funds. These projects are included in the VTA, Caltrain and ACE Short Range Transit Plans (SRTPs).

The CMP statute requires that the CMP contain a Capital Improvement Program that accomplishes the following objectives:

- Maintains or improves the performance of the multimodal system for the movement of people and goods.
- Mitigates the impacts of land use decisions on the Regional Transportation System.
- Conforms to air quality mitigation measures included in state and federal air quality plans.
- Preserves the investment in existing facilities.

LOCAL POLICIES FOR CIP DEVELOPMENT

In 1992, the Santa Clara County CMA Governing Board adopted several specific policies (in addition to the statutory requirements for CIP projects) to guide the development of the Capital Improvement Program. These policies were used in conjunction with the regional criteria for project selection and other program-specific criteria to develop the CIP. The VTA Board of Directors revised these policies as a result of the November 2001 election and January 2009 adoption of its long-range Countywide Transportation Plan, Valley Transportation Plan 2035 (VTP 2035). They are listed as follows:

- Future discretionary Federal and State programming is limited to pedestrian, bicycle and roadway projects (Adopted October 5, 2000).
• Santa Clara County’s STIP submittal will be formulated to be consistent with the adopted long-range Countywide Transportation Plan.

• Project sponsors in Santa Clara County will provide at least twenty percent of total project cost in local matching funds where appropriate.

• All projects submitted for funding must be on or benefit the adopted CMP System.

• Transportation improvements should support higher density development around transit stations, thus promoting the use of transit and other alternatives to the single-occupant vehicle in Santa Clara County.

• Improvements that make existing developments more pedestrian and bicycle-friendly, support HOV and transit users, and improve passenger safety and convenience are encouraged.

• Transportation improvements should support land-use policies that encourage well-designed infill and mixed-use development.

• Whenever possible, roadway projects shall improve, or at least not reduce, outside lane widths (or bicycle lanes) to provide for safe bicycle travel.

**CAPITAL IMPROVEMENT PROGRAM FUNDING**

The VTA Board adopted the Valley Transportation Plan 2040 (VTP 2040) in October 2014. VTP 2040 addresses transportation-related projects and actions in Santa Clara County that involve participation by VTA and its associated agencies, impact inter-jurisdictional travel, or are regional in nature. These investments are location-specific improvements for four modes of travel: roadway (including HOV and ITS), transit, bicycle, and pedestrian. The following sections describe funding programs for the 2017 CIP.

**SURFACE TRANSPORTATION PROGRAM (STP) / CONGESTION MITIGATION - AIR QUALITY PROGRAM (CMAQ)**

STP funds are used to address congestion problems by funding planning, rehabilitation and improvement projects across all transportation modes. CMAQ funds are used to implement the transportation provisions of the 1990 Federal Clean Air Act and are allocated only to areas designated as non-attainment areas. The Bay Area is currently a non-attainment area.

The STP and CMAQ funding programs are part of the Fixing America’s Surface Transportation (FAST) Act (Pub. L. No. 114-94). On December 4, 2015, President Obama signed this act into law—the first federal law in over a decade to provide long-term funding certainty for surface transportation infrastructure planning and investment. The FAST Act authorizes $305 billion over fiscal years 2016 through 2020 for highway, highway and motor vehicle safety, public
transportation, motor carrier safety, hazardous materials safety, rail, and research, technology, and statistics programs. The FAST Act maintains our focus on safety, keeps intact the established structure of the various highway-related programs US DOT manages, continues efforts to streamline project delivery and, for the first time, provides a dedicated source of federal dollars for freight projects.

REGIONAL IMPROVEMENT PROGRAM (RIP) AND INTERREGIONAL IMPROVEMENT PROGRAM (IIP)

Senate Bill 45 (SB 45) was signed into law in 1997. This legislation directed funds from the State Highway Account (SHA) into three funding categories:

1. Regional Improvement Program (RIP) – 75 percent
2. Interregional Improvement Program - Rural Interregional – 15 percent
3. Interregional Improvement Program - Discretionary – 10 percent

Seventy-five percent of the consolidated funds are allocated to the regions as Regional Improvement Program funds. The Metropolitan Transportation Commission (MTC) programs these funds through the State Transportation Improvement Program (STIP) process, with final approval by the California Transportation Commission (CTC).

The remaining 25 percent is allocated to the two categories of the Interregional Improvement Program (IIP). Fifteen percent is allocated to projects outside of the urbanized areas (IIP – 15 percent Category). The remaining 10 percent may be programmed on any interregional project at the discretion of Caltrans and CTC. All IIP funds are programmed by Caltrans, through the Interregional Transportation Improvement Plan (ITIP) process, with final approval by CTC. The regions may work with Caltrans for combined RIP and IIP funding of projects in the ITIP and/or petition for the nomination of particular projects in the ITIP. However, the ability to nominate projects for the ITIP rests solely with Caltrans. In the past, Caltrans has nominated and the CTC has programmed IIP funds to projects within Santa Clara County.

TRAFFIC CONGESTION RELIEF FUND

On July 6, 2000, the governor signed Assembly Bill 2928 into law. This bill established the Traffic Congestion Relief Fund (TCRF) to provide funding for specific congestion relieving transportation projects around the State. The bill made $914.5 million available for projects and to Santa Clara County; TCRF funding was prioritized for Prop. 42 funds until 2008, however Prop. 42 funds were diverted on multiple occasions and the prioritization period ended with a significant back-log of un-allocated funds. The CTC adopted a TCRP allocation plan in 2008 based on Prop. 42 payback schedules and tribal gaming receipts that were anticipated at the time, and prioritized the remaining projects into two tiers based on their delivery schedules.
The Prop. 42 payback revenues are directed to the first tier, with anything remaining in a given year, and the tribal gaming receipts directed to the second tier. VTA’s BART extension project is in the first tier, and accounts for half of each year’s guaranteed revenues until 2015. VTA received the final allocation in July 2015.

REGIONAL MEASURE 2 AND REGIONAL MEASURE 3

In 2004, voters passed Regional Measure 2 (RM2), raising the toll on the seven state-owned toll bridges in the San Francisco Bay Area by $1. This extra dollar funds various transportation projects within the region determined to reduce congestion or to make improvements to travel in the toll-bridge corridors, as identified in Senate Bill 916 (Chapter 715, Statutes of 2004). In October 2017, Senate Bill 595 (Beall) passed which allowed Regional Measure 3 (RM3) to be placed on the ballot to increase bridge tolls to fund congestion relief projects and improve mobility in the bridge corridors. RM3 includes a bridge toll increase of up to $3 and a set of projects and operational categories and was passed by voters in June 2018.

SENATE BILL 1

Senate Bill 1, the Road Repair and Accountability Act of 2017, was signed into law on April 28, 2017. This legislative package invests $54 billion over the next decade to fix roads, freeways and bridges in communities across California and puts more dollars toward transit and safety. These funds will be split equally between state and local investments.


In November 2000, the voters of Santa Clara County approved Measure A, a 30-year countywide ½-cent sales tax to be collected by VTA and used to fund specific transit projects and programs. 2000 Measure A took effect in April 2006, immediately after the expiration of the 1996 Measure B ½-cent sales tax, and will continue for 30 years until 2036.

In November 2008, the voters of Santa Clara County approved Measure B, a 1/8-cent sales tax for the purpose of funding the operations and maintenance of the 16.1 mile BART extension into Santa Clara County and for providing VTA’s contributions to BART’s system wide capital reserve. The tax is limited to 30 years.

In November 2016, the voters of Santa Clara County approved Measure B. Revenues will fund various transportation projects in Santa Clara County. These projects range from local streets and roads repair, bicycle/pedestrian improvements, and building Caltrain grade separations to funding Phase II of the BART extension. Due to ongoing litigation, 2016 Measure B revenue is being held in an escrow account “until the legality of the tax is finally resolved by a final and non-appealable decision...” (California Revenue and Taxation Code, Rev. & Tax. Code § 7270(c).)
TRANSPORTATION FUND FOR CLEAN AIR

The Transportation Fund for Clean Air (TFCA) is generated by a $4.00 surcharge on vehicle registrations. The Bay Area Air Quality Management District (BAAQMD) administers these funds in the nine-county Bay Area. Funds are available for allocation to alternative fuels, arterial management, bicycle, and trip-reduction projects that reduce vehicle emissions. BAAQMD returns 40% of these funds to the county in which they are collected for allocation by a “program manager.” This fund is called the TFCA Program Manager Fund. VTA is the program manager for Santa Clara County and project sponsors apply directly to VTA for funding. The VTA Board of Directors allocates these funds to projects in Santa Clara County, following criteria developed by VTA and its Member Agencies and subject to approval by BAAQMD. The remaining 60% of the funds are dedicated to a regional discretionary program managed directly by the BAAQMD.

SANTA CLARA COUNTY EXPRESS LANES REVENUE

In 2004, the State passed legislation (AB 2032, Dutra) giving VTA the authority to implement express lane operations in up to two routes in Santa Clara County. VTA completed an Express Lane Study that identified candidate routes, which are listed below as part of the Highway Program of projects.

In 2012, VTA opened the first express lane in Santa Clara County on the SR 237/I-880 connector ramp. During FY 2013, the express lane produced toll revenues of $1,049,000, exceeding the projection of $592,000, while the total expenses incurred were below projections at $535,000.

VTA estimates that express lane projects will generate approximately $1.01 billion in revenues (net of operating and maintenance expenses) through 2040 that will be used for transit services and other transportation improvements in the express lanes corridors.

2010 MEASURE B VEHICLE REGISTRATION FEE

In 2010 the voters of Santa Clara County approved a $10 increase in the motor vehicle registration fee for transportation-related projects and programs. Funds are distributed to the County of Santa Clara based on the County’s percentage share of the total roadway lane mileage recorded in Caltrans’ California Public Road Data report. The remaining funds are distributed to the incorporated cities within Santa Clara County based on each city’s percentage share of the total county population as reported by the California Department of Finance. Roadway mileage and population shares are updated annually.

Eligible Project Categories include:

1. Pavement Rehabilitation/Reconstruction
2. Traffic Control Signals, Traveler Information & Safety Devices
3. Curb & Gutter Rehabilitation/Reconstruction
4. Roadway-Related Facilities to Improve Safety
5. Automobile-Related Environmental Mitigation including Roadway Sweeping & Litter Control
6. Intelligent Transportation System Technologies (transportation-related technologies including traffic control signals, safety and traveler information systems)
7. Countywide Environmental Mitigation related to pollution caused by autos and trucks
8. Matching funds for Federal/State/Regional transportation grants applied to any roadway transportation project included in the adopted Valley Transportation Plan

CIP PROJECT LISTS

The Capital Improvement Program is developed in accordance with the regionally adopted multimodal criteria for project selection. The criteria emphasize maintaining and sustaining the existing transportation system, improving its efficiency and effectiveness through congestion relief, safety improvements and consideration of freight movement, expanding the system, and accounting for external impacts on land use and air quality.

The CMP statute requires that capital improvement programs be submitted to the regional planning agency (the Metropolitan Transportation Commission in the Bay Area) for inclusion in Plan Bay Area 2040 and the Transportation Improvement Program (TIP). The statute then specifies that the regional agency shall:

1. Evaluate the consistency between the program and the regional transportation plans pursuant to Section 65080.
2. Find the program to be consistent and incorporate it into the regional transportation improvement program as provided for in Section 65082. If the regional agency finds the program is inconsistent, it may exclude any project in the Congestion Management Program from inclusion in the regional transportation improvement program.

Appendix J contains the project lists constituting the Capital Improvement Program. Readers seeking additional information about a specific project should consult the project listing in the Transportation Improvement Program (http://www.mtc.ca.gov/funding/tip/index.htm). As MTC updates the TIP in future cycles as well as Plan Bay Area, the project list may be updated in the next cycle.
CHAPTER 9 | MONITORING AND CONFORMANCE ELEMENT

BACKGROUND

State statute sections 65089.1 and 65089.2 identify a number of program elements and responsibilities pertaining to the establishment of a Congestion Management Program. Section 65089.3 charges the Congestion Management Agency with monitoring all elements of the program on a biennial basis. VTA, as the CMA for Santa Clara County, meets and exceeds this requirement.

Specifically, the CMA must monitor the level of service on the CMP roadway network (Freeways, State Highways and Principal Arterials) as well as the impacts of land use changes to determine whether Member Agencies are conforming to the CMP. The CMA must also ensure that its Member Agencies are meeting transportation impact analysis submittal requirements. Failure to conform to the CMP may result in the withholding of Member Agency Proposition 111 (1991) gas tax revenue.

Monitoring findings are released each spring in the Monitoring and Conformance Report after receiving months of input from VTA’s Systems Operations & Management Working Group and other Member Agency staff. The Report is reviewed by VTA’s Advisory and Standing Committees and is ultimately approved by the Board of Directors.

AUTO LEVEL OF SERVICE STANDARD

Statute 65089 (1)(A) identifies auto Level of Service (LOS)—a sliding A through F scale where LOS A indicates no traffic congestion and LOS F indicates significant congestion—as the measure to apply to CMP network operation. The statute establishes LOS E as the minimum CMP auto LOS standard. CMP facilities operating below LOS E will be considered non-conforming. CMP facilities operating below LOS E prior to 1991 are exempt from meeting the LOS standard. Further discussion of the VTA CMP auto LOS standard is provided in Chapter 3 of this document.

SCOPE OF THE MONITORING PROGRAM, RESPONSIBILITY AND METHODOLOGY

Below is a discussion of how data is collected and analyzed for conformance for each section of the Monitoring Program. In some areas the methodology is mandated by the CMA legislation. In other areas the CMA and Member Agencies have collaborated to determine the proper methodology. Detailed discussions of level of service methodology can be found in VTA’s Traffic Level of Service Analysis Guidelines. Further information about the methodology for data collection in the monitoring program is included in the 2018 Monitoring and Conformance
Report. This section also indicates whether the Member Agencies or VTA are responsible for monitoring, and how often the monitoring takes place.

**FREEWAYS (VTA RESPONSIBILITY, UNDERTAKEN ANNUALLY)**

Each fall, VTA collects AM and PM peak period data for the freeways in the CMP network. Since 2014, VTA has used big data to collect a comprehensive set of data for every freeway segment. Big data is used to measure traffic speed, which forms the basis to calculate LOS as well as density and flow rates based on a density-speed curve.

A transition to big data is helping to improve the Monitoring Program, not only by potentially providing more data for a lower cost, but also by widening the scope of transportation analysis in Santa Clara County. Over the coming years VTA staff will evaluate the suitability of big data to conduct research.

**LAND USE APPROVALS (MEMBER AGENCY RESPONSIBILITY, UNDERTAKEN ANNUALLY)**

Each summer Member Agencies are requested to submit land use approval data for the prior fiscal year to VTA. The data submittal identifies the parcel number, traffic analysis zone (TAZ), zoning designation/change, number of residential units added/removed and the number of commercial/industrial square feet added/removed.

VTA tallies the annual change in residential units and commercial/industrial square footage on a city and countywide basis, identifies development trends and undertakes a geographic analysis of land use changes. The data appears alongside data from previous years in the Monitoring and Conformance Report. Figure 9.1 shows the locations of residential land use approvals from fiscal year 2018. Figure 9.2 shows the locations of commercial/industrial land use approvals for the same year.

**TRANSPORTATION IMPACT ANALYSIS (MEMBER AGENCY RESPONSIBILITY, CONTINUALLY AS APPROPRIATE)**

Member Agencies are required to undertake a Transportation Impact Analysis (TIA) when a project is expected to produce more than 100 net new peak hour trips during the AM or PM peak hour (weekdays) or the peak hour (weekends). TIAs are required to be submitted to VTA for review and comment at least 20 calendar days before the project is considered for approval or recommended for approval. See Chapter 7 for further discussion of TIAs and the TIA Guidelines.
CMP INTERSECTIONS (MEMBER AGENCY RESPONSIBILITY PERFORMED BY VTA, UNDERTAKEN BIENNIA LY)

The operation of principal arterials and state highways located within urbanized Santa Clara County is measured by the level of service at CMP Intersections. CMP intersections are select, generally high-volume intersections located along these thoroughfares. 252 CMP intersections are currently monitored. Every other fall, the PM peak period vehicle volume data for each CMP Intersection is collected and analyzed. CMP Intersection data was collected for the 2018 monitoring cycle. Traditionally, data collection for CMP intersection monitoring has been a Member Agency responsibility. However, based on an agreement between VTA and the Member Agencies in 2011, data collection for CMP intersections is currently performed by VTA.
FIGURE 9.1 | APPROVED HOUSING UNITS NEAR VTA’S CORES, CORRIDORS AND STATION AREAS (2018 NET CHANGE)
FIGURE 9.2 | JOB CHANGE ESTIMATES NEAR VTA’S CORES, CORRIDORS AND STATION AREAS (2018 NET CHANGE)
For CMP Intersections level of service is calculated in terms of Average Control Delay—the average number of seconds a vehicle must wait at the intersection. The methodology is based on the 2000 Highway Capacity Manual.

**RURAL HIGHWAYS (VTA RESPONSIBILITY, UNDERTAKEN BIENNIALY)**

Every other fall, VTA uses hose counters to conduct three-day counts at twelve locations along Santa Clara County’s rural highways. Counts are recorded in 15-minute intervals with the one-hour period that shows the greatest combined vehicle volume considered the peak period. Automatic hose counters are used to measure vehicle counts by the number of times the hose is depressed by traveling vehicles. The LOS procedure in the 2000 Highway Capacity Manual is used to measure the percent time spent following and average travel speed, with appropriate inputs for peak hour and peak 15 minute traffic volumes, the percentage split between the two directions of traffic, the percentage of trucks in the traffic flow, and the type of terrain. Rural highway data was collected for the 2018 monitoring cycle and will be collected again in 2020.

**MULTIMODAL IMPROVEMENT PLAN MONITORING (MEMBER AGENCY RESPONSIBILITY, UNDERTAKEN ANNUALLY)**

Multimodal Improvement Plans shall be prepared by Member Agencies in situations where the CMP Traffic Level of Service standard is violated or is likely to be violated in the future. The requirements for preparing Multimodal Improvement Plans are set forth in VTA’s Deficiency Plan Requirements, which were most recently updated in September 2010 and are described further in Chapter 10. Member Agencies with approved Multimodal Improvement Plans are responsible for preparing an Implementation Status Report that documents progress on the implementation of all the improvements and actions included in the Multimodal Improvement Plan. These Status Reports are to be submitted biennially by the Member Agencies with approved Multimodal Improvement Plans. As part of its monitoring process, VTA will review Member Agencies’ Implementation Status Reports for purposes of determining conformance with the CMP.

**MONITORING AND CONFORMANCE PROCESS**

The following is a brief summary of the steps in the VTA CMP Monitoring and Conformance Process over the course of the fiscal year. Table E.1 in the Executive Summary summarizes the CMP Elements, monitoring and conformance requirements, timing, and responsible agency in tabular form.

**July** – VTA alerts Member Agencies of monitoring requirements and deadlines for data submittal. The notification contains paper and electronic versions of the annual monitoring and conformance requirements, land use approval worksheet, certification form and supporting documents.
**Fall** – Member Agencies assemble land use approval data and TIA submittals. VTA collects all data for the CMP Monitoring Program between Labor Day and the Thanksgiving Holiday week. Freeway data and land use data are collected every year. Biennially, data is also collected for CMP Intersections, rural highways and bicycle and pedestrian volumes. Member Agencies with approved Multimodal Improvement Plans prepare Implementation Status Reports annually.

**Winter** – VTA staff receives and analyzes monitoring data. Monitoring data is presented to the Systems Operations & Management Working Group (SOMWG) for review and discussion.

**Spring** – VTA presents the Draft Monitoring and Conformance Report and conformance findings to the SOMWG, select advisory and standing committees and the Board of Directors for adoption.

If a Member Agency is found in non-conformance with the CMP, the agency will be notified by VTA in writing and will have 90 days to achieve conformance. If a Member Agency finds flaws with a finding of non-conformance, the agency has 60 days to submit a written response either disputing the finding by documenting any errors related to the determination of conformance or detailing how the agency will respond to the violation, for instance by developing a Multimodal Improvement Plan. Written responses must be signed by the city manager/town manager/county executive.

If a Member Agency found to be non-conforming has not achieved conformance within the 90 days following written notice, the VTA Board of Directors will make a finding of non-conformance and will notify the State Controller, who will withhold gas tax subventions from the non-conforming jurisdiction.

**Summer** – Following adoption by the Board of Directors, a final version of the Monitoring Report is released incorporating feedback, if any, from the committees and the Board.

**RELEVANT TECHNICAL GUIDELINES**

The following Technical Guidelines of the VTA Congestion Management Program are relevant to the Monitoring and Conformance process. The versions/dates listed are the most current as of fall 2019.

- Traffic Level of Service Analysis Guidelines (adopted June 2003)
- Transportation Impact Analysis Guidelines (adopted October 2014)
- Deficiency Plan Requirements (adopted September 2010)
- Annual Monitoring Requirements (revised April 2004)
CHAPTER 10 | MULTIMODAL IMPROVEMENT PLAN ELEMENT

This chapter describes the Congestion Management Program Multimodal Improvement Plan Element, and includes the following sections:

- VTA Approach to Multimodal Improvement Planning
- Multimodal Improvement Plan Requirements
- Multimodal Improvement Plan Evaluation
- Multimodal Improvement Plan Monitoring
- Local Multimodal Improvement Plans
- Compliance and Conformance

INTRODUCTION

The Congestion Management Program (CMP) Statute states that, “When the level of service on a segment or at an intersection fails to attain the established level of service standard... a deficiency plan shall be adopted pursuant to Section 65089.4.”

Beginning with the 2013 CMP, VTA uses the term “Multimodal Improvement Plan” for “Deficiency Plan” as defined by state legislation. The purpose of this change is to highlight the positive role a Multimodal Improvement Plan can play in identifying measures available to Member Agencies to improve multimodal transportation options in situations where it is infeasible or undesirable to address a level of service (LOS) deficiency by expanding automobile capacity. Prior to August 2013, VTA used the term “Deficiency Plan,” so this term still occurs in the Board-adopted VTA Deficiency Plan Requirements (2010) as well as two Deficiency Plans that have been adopted by cities in Santa Clara County.

To be consistent with CMP Statute, Multimodal Improvement Plans must include a list of improvements, programs, or actions that measurably improve multimodal performance and contribute to significant improvements in air quality. If a CMP System facility falls below the LOS standard and does not have an approved Multimodal Improvement Plan, then the local jurisdiction in which the facility is located is at risk of losing gas tax revenues provided from Proposition 111.

Multimodal Improvement Plans allow local jurisdictions to proceed with development projects even if adherence to CMP auto LOS standards cannot be achieved for specific facilities. In some situations, meeting LOS standards may be infeasible or undesirable. For these situations, Multimodal Improvement Plans allow local jurisdictions to adopt innovative and comprehensive transportation strategies for improving system-wide multimodal transportation rather than
strictly adhering to an auto LOS standard that may contradict other community goals, such as concentrating higher-density development near transit or maintaining the attractiveness of streets for pedestrians and bicyclists. In other words, Multimodal Improvement Plans allow Member Agencies to trade off increased congestion on one CMP facility for transportation system improvements to other facilities or services (e.g. transit, bicycling, walking, or transportation demand management).

**VTA APPROACH TO PREPARING MULTIMODAL IMPROVEMENT PLANS**

VTA has been proactive in the development of guidelines and standards for Multimodal Improvement Plans. The approach taken by the VTA Board has been to create a clear set of guidelines so that traffic congestion and off-setting improvements can be addressed in advance and development projects are not delayed by the process.

The Technical Advisory Committee (TAC) began the development of guidelines for the preparation of Multimodal Improvement Plans, then referred to as Deficiency Plans, immediately upon completion of Santa Clara County’s first Congestion Management Program in 1991. The first Requirements for Deficiency Plans were adopted in November 1992. These standards were revised by VTA in consultation with its Member Agencies in 2009 and 2010, and new Deficiency Plan Requirements were adopted by the VTA Board in September 2010.

The following is VTA’s approach to the preparation of Multimodal Improvement Plans.

- All Multimodal Improvement Plans must be one of the following three types:
  1. **Mini Multimodal Improvement Plan:** A Mini Multimodal Improvement Plan is prepared to address a single CMP Intersection or roadway facility, typically in conjunction with a Transportation Impact Analysis (TIA) Report for a single development project.
  2. **Specific Area Multimodal Improvement Plan:** A Specific Area Multimodal Improvement Plan is prepared for a CMP roadway segment or set of intersections within a localized specific area such as a downtown or special district.
  3. **Areawide Multimodal Improvement Plan:** An Areawide Multimodal Improvement Plan is prepared to address all the CMP System roadways or intersections included in an identified area such as an entire city or an area that covers multiple jurisdictions and/or cities.

- VTA recommends that Member Agencies prepare Areawide Multimodal Improvement Plans whenever possible. This will reduce the number of Multimodal Improvement Plans prepared and lead to implementation of comprehensive solutions to transportation problems.
• VTA requires that each Multimodal Improvement Plan include implementation of all feasible and applicable actions on the “Deficiency Plan Action List” provided in the VTA Deficiency Plan Requirements. Member Agencies must identify how all of these specific actions will be implemented as part of the Multimodal Improvement Plan.

• VTA requires that each Multimodal Improvement Plan demonstrate, to the extent practical, how the actions included in the Plan, such as improved public transit service and facilities, improved non-motorized transportation facilities, and enhanced transportation demand management measures, will improve system-wide multimodal performance and air quality.

MULTIMODAL IMPROVEMENT PLAN REQUIREMENTS

VTA’s most recent document addressing the policies and procedures for Multimodal Improvement Plans is the Board-adopted Deficiency Plan Requirements, September 2010.

The CMP Statute states that “The deficiency plan shall include the following elements” (summarized from California Government Code Section 65089.4):

1. Analysis of the cause of the deficiency;
2. Analysis of the improvements needed to maintain the CMP auto LOS standard on the deficient facilities and the cost of those improvements;
3. A list of alternative improvements, programs or actions that will improve multimodal performance and improve air quality; and
4. An action plan for implementing the improvements outlined in (2) or the alternative actions outlined in (3).

The CMP statute requires congestion management agencies to use the action items from the Deficiency Action List developed by the local air quality management district. The air quality management district for Santa Clara County, the Bay Area Air Quality Management District (BAAQMD) adopted a Deficiency Plan Action List in November 1992. The BAAQMD’s list is based on the Transportation Control Measures (TCMs) in the Bay Area Clean Air Plan. The most recent Bay Area Clean Air Plan was adopted in April 2017 and contains an updated list of TCMs that can guide the development of Multimodal Improvement Plans (see Appendix F for a complete list of TCMs in the 2017 Clean Air Plan). Therefore, Multimodal Improvement Plans will be a significant means of implementing TCMs and working towards improved air quality in Santa Clara County.

VTA’s Deficiency Plan Requirements include the BAAQMD Deficiency Plan action list, as Appendix C of the document. Where appropriate, VTA’s requirements contain edits that have
been made to the Air District’s Deficiency Plan action list to reflect current standards and practices applicable to Santa Clara County.

**MULTIMODAL IMPROVEMENT PLAN UPDATES**

Multimodal Improvement Plans must be updated when transportation and/or development projections change significantly from the assumptions used for the Multimodal Improvement Plan. Multimodal Improvement Plan monitoring requirements are addressed later in this chapter.

**MULTIMODAL IMPROVEMENT PLAN EVALUATION**

Member Agencies must prepare Multimodal Improvement Plans and adopt them at a noticed public hearing. The Multimodal Improvement Plan is then submitted to VTA. According to the CMP Statute:

“A city or county shall forward its adopted deficiency plan to the agency within 12 months of the identification of a deficiency. The agency shall hold a noticed public hearing within 60 days of receiving the deficiency plan. Following the hearing, the agency shall either accept or reject the deficiency plan in its entirety, but the agency may not modify the deficiency plan. If the agency rejects the plan, it shall notify the city or county of the reasons for that rejection.” (California Government Code Section 65089.4(d))

The VTA Deficiency Plan Requirements define the criteria that will be used to approve or reject Member Agency Multimodal Improvement Plans. VTA staff will analyze Multimodal Improvement Plans submitted by Member Agencies using the adopted criteria, and present a report to the VTA Board that documents their findings and contains a recommendation to approve or reject the Multimodal Improvement Plan.

**MULTIMODAL IMPROVEMENT PLAN CRITERIA**

The following criteria will be used when evaluating Multimodal Improvement Plans:

1. Are all actions on the most current version of the Deficiency Plan Action List that are applicable and feasible included in the Multimodal Improvement Plan? Are the reasons why any actions found to be inapplicable or infeasible adequate?

2. Are sufficient actions included in the Multimodal Improvement Plan to compensate for the deficient facility’s unacceptable LOS? Are these actions on the Deficiency Plan Action List or have they been approved by the BAAQMD? Is the technical analysis of physical improvements included in the Multimodal Improvement Plan adequate?
3. Does the Multimodal Improvement Plan include a workable program to guarantee implementation of all actions and improvements included in the Multimodal Improvement Plan?

4. Are the costs for implementation of the Multimodal Improvement Plan actions reliably estimated? Does the Multimodal Improvement Plan include an adequate method for financing the actions and improvements?

5. Are the Multimodal Improvement Plan actions and improvements consistent with all appropriate regional and local plans? (i.e. the Regional Clean Air Plan, the Regional Transportation Plan, the Regional Transportation Improvement Program, the BAAQMD’s Deficiency Plan Action List and any subsequent requirements, and applicable General Plans).

6. Did the local jurisdiction consult with all appropriate neighboring jurisdictions and agencies when preparing the Multimodal Improvement Plan?

7. Does the Multimodal Improvement Plan include a monitoring program that will assess whether Multimodal Improvement Plan actions and improvements have been implemented?

8. Did the Member Agency prepare an adequate environmental analysis of the Multimodal Improvement Plan?

In accordance with CMP statute, VTA will consider Multimodal Improvement Plans at a noticed public hearing. If a Multimodal Improvement Plan is rejected, VTA will provide a written report that documents its reasons for rejecting the Multimodal Improvement Plan.

**MULTIMODAL IMPROVEMENT PLAN MONITORING**

Multimodal Improvement Plans must be monitored as part of the CMP Monitoring and Conformance Program. Member Agencies will monitor implementation of Multimodal Improvement Plan actions by preparing a Multimodal Improvement Plan Implementation Status Report. This status report will be based on the implementation schedule included in the Multimodal Improvement Plan.

If a Member Agency is not meeting the implementation schedule it set forth in a Multimodal Improvement Plan, VTA may require the Member Agency to expedite the implementation of their Multimodal Improvement Plan, or the Member Agency could be found in nonconformance with the CMP and lose gas tax revenues generated by Proposition 111.

As part of its CMP Monitoring and Conformance Program, VTA performs an evaluation of the multimodal performance of the CMP Transportation System which helps evaluate the overall effectiveness of VTA and Member Agency efforts to improve the system, including the Capital Improvement Program and the adopted Multimodal Improvement Plans. It must be
emphasized that it will be difficult to measure quantitatively the effect of individual actions or even of individual Multimodal Improvement Plans, especially since most of the actions are designed to achieve maximum effectiveness over the long term. VTA uses several types of quantitative data to analyze overall CMP effectiveness. The data may include LOS data submitted to the CMA by Member Agencies as part of the LOS monitoring program, pedestrian and bicycle count data collected as part of the monitoring program, and modeling data, such as vehicle miles traveled and mode shares, gathered from VTA’s Countywide Transportation Model.

LOCAL MULTIMODAL IMPROVEMENT PLANS

To date, four Multimodal Improvement Plans have been developed by cities and approved by the VTA Board of Directors. Two were adopted as “Deficiency Plans.” The City of Sunnyvale developed a Citywide Deficiency Plan which was approved by the VTA Board in January 2006, and the City of San Jose developed the specific area North San Jose Deficiency Plan that was approved by the VTA Board in June 2007. Two other cities in Santa Clara County have Multimodal Improvement Plans.

The Mountain View Citywide MIP was adopted by the Mountain View City Council in September 2018, and by the VTA Board of Directors in December 2018. The City of Santa Clara prepared a Multimodal Improvement Plan in northern Santa Clara associated with the City Place development project. It was approved by the Santa Clara City Council in November 2018 and approved by the VTA Board of Directors in December 2018. Other cities in Santa Clara County such as San Jose are considering developing Multimodal Improvement Plans to address LOS deficiencies associated with development projects or land use plans. Further information about specific Multimodal Improvement Plans in Santa Clara County is provided in the CMP Monitoring and Conformance Report. VTA will work with local agencies that develop new Multimodal Improvement Plans, and as they are adopted these plans will be monitored per CMP requirements.

COMPLIANCE AND CONFORMANCE

In order to be in conformance with the Congestion Management Program, Member Agencies must:

- Prepare Multimodal Improvement Plans for facilities that violate CMP auto LOS standards or that are projected to violate LOS standards using the adopted VTA Deficiency Plan Requirements.
- Submit Multimodal Improvement Plan Implementation Status Reports as part of the CMP Monitoring process.
APPENDIX A | GLOSSARY

2016 Measure B: A 30-year, half-cent countywide sales tax to enhance transit, highways, expressways and active transportation (bicycles, pedestrians and complete streets) adopted in November 2016.

AB-32: Assembly Bill 32 (Nunez) The California Global Warming Solutions Act of 2006. AB-32 was signed into law by Governor Arnold Schwarzenegger on September 27, 2006. The bill required the California Air Resources Board to adopt regulations that require the reporting and verification of statewide greenhouse gas emissions and to monitor and enforce compliance with the regulations.

ABAG: Association of Bay Area Governments. The regional planning agency for the nine counties and 101 cities and towns of the San Francisco Bay region.

ADT: Average Daily Traffic. Average number of vehicles passing a specified point during a 24-hour period.

AQAP: Air Quality Attainment Plan. The plan for attainment of state air quality standards, as required by the California Clean Air Act of 1988. Air Quality Attainment Plans are adopted by air quality districts and subject to approval by the California Air Resources Board.

Approved Project: Any land use project that is expected to generate trips on the designated CMP System. “Approved projects” include such land use approvals as planned development zonings, planned development permits, site and architectural permits, conditional permits, and actions that represent final land use approval and create a land use entitlement.

Automobile Level of Service: Automobile Level of Service (commonly shortened to “auto LOS”) describes the operations of roadway segments or intersections in terms of vehicle speed, volume and capacity, and traffic delay. Auto LOS measurements are given by letter designations, from A (least congested) to F (most congested). Procedures to analyze Auto LOS for CMP purposes are defined in the VTA Traffic LOS Analysis Guidelines. Auto LOS evaluates operations for all common motor vehicle types, including automobiles, light and heavy trucks, and motorcycles. In addition, although congestion also affects transit vehicles operating in general purpose lanes, transit operations are affected by additional factors and are typically evaluated separately from auto LOS.

BAAQMD: Bay Area Air Quality Management District. The regional agency created by the state legislature for the Bay Area air basin (Alameda, Contra Costa, a portion of Solano and Sonoma, Marin, Napa, San Francisco, San Mateo, and Santa Clara counties) that develops, in conjunction with MTC and ABAG, the air quality plan for the region. BAAQMD has an active role in approving the TCM (see definition below) plan for the region, as well as in controlling stationary and indirect sources of air pollution.

Baseline LOS: 1991 CMP level of service. Traffic volumes used to calculate the baseline LOS include existing 1991 intersection volumes, and new trips generated from projects approved as of April 17, 1991 and funded transportation improvements.

Big Data: A phenomenon currently impacting a wide range of industries, defined as “a new generation of technologies and architectures designed to economically extract value from very large volumes of a wide variety of data, by enabling high-velocity capture, discovery, and/or analysis” (Big Data: Beyond the Hype, White Paper by
Datastax Corporation, March 2012). In the field of transportation monitoring and analysis, Big Data methods involve aggregating traffic-related information from GPS-enabled vehicles and mobile devices, traditional road sensors and hundreds of other sources (INRIX website, accessed 9/11/2013).

**Caltrans**: California State Department of Transportation. As the owner/operator of the state highway system Caltrans is responsible for the safe operation and maintenance of the highway.

**Capital Priorities**: A process used by MTC to evaluate and prioritize transit projects in the region. All sources of transit funding, including FTA grants, state programs, and other sources are considered. This process involves all of the transit operators in the region, including bus, rail, and ferries.

**Carpooling**: A carpool is formed with a minimum of two people who commute on a regular basis. Carpoolers generally live and work in close proximity to each other and share common commuting patterns and schedules.

**CAP**: Clean Air Plan. A set of guidelines that are designed to improve air quality, protect public health, and protect the climate.

**CDT Program**: VTA’s Community Design & Transportation (CDT) Program, adopted by Board Resolution No. 02.11.35, is VTA’s primary program designed to integrate transportation infrastructure improvements and land use development.

**CEQA**: California Environmental Quality Act. This act sets environmental standards designed to enhance environmental quality and to control environmental pollution throughout the state of California.

**CIP**: Capital Improvement Program. A seven year program established by CMP to create projects to maintain or improve the auto level of service and transit performance standards, and to mitigate regional transportation impacts identified by the CMP Land Use Analysis Program, which conforms to transportation-related vehicle emissions air quality mitigation measures.

**CMA: Congestion Management Agency**: The CMA is a countywide organization responsible for preparing and implementing the county’s Congestion Management Program. In Santa Clara County, VTA is the designated CMA.

**CMAQ**: Congestion Mitigation and Air Quality Improvement Program. A federal funding program established by ISTEA and continued in TEA-21 and SAFETEA-LU specifically for projects and programs that contribute to attainment of national ambient air quality and safety standards. The funds are available to non-attainment areas based on population and the severity of pollution. Eligible projects will be defined by the State Implementation Program (SIP), the State’s air quality plan.

**CMIA**: Corridor Mobility Improvement Account. A State Funding program for projects on the California State Highway System that: reduce travel time or delay, improves connectivity of the State Highway System between rural, suburban and urban areas, or improves the operation and safety of a highway or road segment; improves access to jobs, housing, markets and commerce; and begin construction before December 2012.

**CMP**: Congestion Management Program. A multi-jurisdictional program to manage traffic congestion. (This is required of every county in California that has urbanized areas of at least 50,000 people). Unless specified, CMP will mean the Santa Clara Valley Transportation Authority’s Congestion Management Program.
**Commute**: A trip that consists of traveling between home and work.

**Commute Alternatives**: An alternative mode of commuting to a single-occupancy vehicle, including using public transit, bicycling, and walking to work.

**Compressed Work Week**: A work schedule for an employee that eliminates at least one round-trip commute either weekly or every other week. An example would be working forty hours in a compressed week (e.g. four ten-hour days) or a work plan that allows one day off every other week.

**CTC**: California Transportation Commission. A state agency that sets state spending priorities and allocates funding for highways and transit. The Governor of California appoints CTC members.

**Deficiency Plan**: See *Multimodal Improvement Plan*.

**Express Lanes**: High-occupancy toll lanes that combine the characteristics of HOV lanes and toll roads by allowing carpools, vanpools, and buses free access, while charging for single-occupant vehicles or drive alone use. In other areas outside Santa Clara County, Express Lanes may be called high-occupancy toll (HOT) or managed lanes.

**Farebox Revenues**: These are revenues collected from transit riders.

**FCR**: Flexible Congestion Relief. One of the state’s funding programs for local or regional transportation projects that will reduce congestion. State highway projects, local roads, and rail guideway projects are all eligible.

**FHWA**: Federal Highway Administration. The federal agency responsible for the approval of transportation projects that affect the defined federal highway system. Administratively, it is under US DOT (Department of Transportation) and is the sister agency of FTA (see definition below).

**Flexible Work Hours**: This is a form of alternative work schedule. It is a policy that gives employees the option of varying their starting and stopping times each workday. Most policies specify a core period in the middle of the workday (e.g. 10:00 a.m. to 4:00 p.m.) when all employees are required to be present. The intent is to allow employees flexibility in their work hours to meet individual needs and provide an incentive to use commute alternatives such as carpooling or transit.

**Floating Car Data**: The floating car technique is a method used to estimate the average speed on a segment of highway. Traffic speeds are collected by driving with the stream of traffic and recording speed and travel time.

**FTA**: Federal Transit Administration. A component of the U.S. Department of Transportation, delegated by the Secretary of Transportation to administer the federal transit program under the Urban Mass Transportation Act of 1964, as amended, and various other statutes.

**HCM**: Highway Capacity Manual. A manual published by the Transportation Research Board (TRB) that contains concepts, guidelines, and equations to calculate the level of service on highways and intersections. In 2010 the manual was updated to include new level of service/quality of service measures for transit, pedestrians, and bicycles.
**HOV:** High Occupancy Vehicle Lane. A lane on a street or highway reserved for the use of high occupancy vehicles either all day or during specified periods (for example, during rush hours). Buses, carpools, and/or vanpools are allowed to use HOV lanes.

**HSR:** High Speed Rail. The project which is an intra-state high-speed rail link currently being planned by the California High Speed Rail Authority to help meet the anticipated increase in travel demand between the Bay Area and Southern California.

**IIP:** Interregional Improvement Program. This is a state funded program created by SB-45. IIP funds may be awarded to projects outside of the urbanized areas and for interregional projects. All IIP funds are programmed by Caltrans, via the Interregional Transportation Improvement Plan (ITIP) process, with final approval by CTC.

**Indirect Source Control Measure:** The federal Clean Air Act defines indirect source as “...a facility, building, structure, installation, real estate property, road or highway which attracts or may attract mobile sources of pollution.” An indirect source control measure is a rule or ordinance established to reduce the mobile source emissions associated with specific activity centers such as those noted above.

**Internal Trips:** Trips expected to have both their origin and destination within a single development. An example of this is would be a development that has both office and residential space. In this example, internal trips between home and work would be counted as one trip when calculating trip generation.

**IRRS:** Interregional Road System. On February 1, 1990, Caltrans submitted a plan to the state legislature that identified a set of projects that “will provide the most adequate interregional road system to all economic centers in the State.” The statute defined eligible routes, and specified that these new routes be located outside the boundaries of urbanized areas (urbanized areas have populations of 50,000 or more), “except as necessary to provide connection for continuation of the routes within urban areas.” From this plan, Caltrans suggests projects, consistent with the Fund Estimate in its PSTIP, to the CTC for programming in the STIP.

**ISTEA:** Intermodal Surface Transportation Efficiency Act. In 1991, Federal legislation passed a bill that restructured the way funding was allocated to highway projects and included funding transit projects in urban areas. Key ISTEAA components included increased flexibility in the programming of projects and a level playing field between highway and transit projects with a consistent matching ratio of 80% to 20%, respectively. There were ties to the Federal Clean Air Act and the Americans with Disabilities Act, and some major New Rail Starts (Section 3) funds earmarked for the Bay Area Region. ISTEAA funding expired in 1997, and was followed by TEA-21, and then SAFETEA LU.

**ITIP:** Interregional Transportation Improvement Program. The ITIP is a four-year planning and expenditure program adopted by the CTC and updated in even numbered years. The ITIP covers rural highways and key interregional improvements including intercity rail.

**Lead Agency:** The local jurisdiction or agency responsible for approving a project’s environmental analysis as required under CEQA and/or Transportation Impact Analysis report per CMP requirements.

**LOS:** Level of Service. This is a measure used by transportation professionals to grade performance of transportation facilities. LOS is graded on a scale of A (the best performance) to F (the worst performance).
**Major Bus Stop:** Per VTA Transit Sustainability Policy, a bus stop that is served by at least six public transit buses per hour per direction during peak periods.

**Major Transit Stop:** a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods (California Government Code 21064.3).

**Member Agency:** A local jurisdiction that is a signatory of the CMA’s Joint Powers Agreement. This includes all cities within the county, Santa Clara County, and the Santa Clara Valley Transportation Authority.

**Mode Split:** The share of all trips to and from a project site taken by each of the major transportation modes (automobile, carpool, transit, bicycle and pedestrian).

**MPO:** Metropolitan Planning Organization. A federally required transportation planning body responsible for the Regional Transportation Plan (RTP) and the Transportation Improvement Program (TIP) in its region. The governor designates an MPO in every urbanized area with a population of over 50,000.

**MTC:** Metropolitan Transportation Commission. The metropolitan planning organization for the nine-county San Francisco Bay Area.

**Multimodal Improvement Plan:** VTA terminology for “Deficiency Plan” as defined by CMA statute. Multimodal Improvement Plans are plans to identify offsetting measures to improve transportation conditions on CMP facilities in lieu of making physical traffic capacity improvements such as widening an intersection or roadway.

**Obligation:** An action by an administrative agency to approve the spending of money to a specific grant recipient.

**OPR:** The Governor’s Office of Planning and Research, created by statute in 1970, serves the Governor and his Cabinet as staff for long-range planning and research, and constitutes the comprehensive state planning agency.

**Parking Management Program:** In the workplace context, parking policies that favor carpools and vanpools, including creating established parking charges for commuter parking, and preferential parking for carpool or vanpool vehicles. Other parking management programs include policies designed to reduce the total number of cars driving to work, such as the reduction of free or low-cost off-street parking at employment centers.

**PDA:** Priority Development Area. These locations were identified for concentrated development as part of Plan Bay Area, the Metropolitan Transportation Commission’s 2040 Regional Transportation Plan for the nine-county Bay Area.

**Peak Hour:** The highest morning or evening hour of travel reported on a transportation network or street.

**PMS:** Pavement Management System. Required by Section 2108.1 of the Streets and Highways Code, any jurisdiction that wishes to qualify for funding under the STIP must have a PMS that is in conformance with the criteria adopted by the Joint City/County/State Cooperation Committee.

**Preferential Parking:** This concept involves assigning the most desirable parking spaces, such as those closest to building entrances, for the exclusive use of carpool and vanpool vehicles. In addition, parking charges may be
partially reduced or eliminated for carpools and vanpool vehicles. These vehicles may also be exempted from any hourly parking limits that exist.

**Pre-Tax Commuter Benefit:** Federal tax code allows the use of tax-free dollars to pay for transit commuting and parking costs. The monthly benefit amount varies from year to year based on adopted legislation.

**Program of Projects:** This annual program includes Section 9, Section 3 Rail Modernization (Fixed Guideway Modernization), and STP/CMAQ federal funding for transit projects. MTC is the designated recipient for these federal funds acting on behalf of the individual sponsors.

**Proposition 108:** Passed by California voters in June 1990, this bond measure provides up to $1 billion for rail projects programmed in the 1990 STIP. (In 1992 and 1994 state voters turned down bond funding measures for projects programmed in the 1990 STIP). The state has continued the original programming of the 1990 STIP, but the failure of funding the additional bond measures has reduced the STIP money available.

**Proposition 116:** Passed by California voters in June 1990, this bond measure provided $1.9 billion in bonds for rail projects. Requirements for air quality and service integration was included in the legislation, and projects were subject to review by the California Transportation Commission (CTC) before allocation.

**PSR:** Project Study Report. Chapter 878 of the Statutes of 1987 requires that any project that increases state highway capacity, prior to programming in the STIP, complete a report that has a detailed description of the project scope and estimated costs. The intent of this legislation was to improve the accuracy of the schedule and costs shown in the STIP, and thus improve the overall accuracy of the estimates of STIP delivery and costs.

**Quality of Service (QOS):** A metric used to evaluate how well a transportation facility serves its users. Several different QOS methodologies are currently used by transportation professionals, often with a focus on bicyclists, pedestrians or transit passengers.

**Rail Modernization:** This is a federal funded grant under Section 3(h) of the Federal Transit Act. The funds are made available to local transit agencies to improve fixed guideway systems that have been in service for at least seven years.

**RHNA:** Regional Housing Needs Allocation. The minimum amount of housing that will be needed to support projected housing growth, at all income levels, by the end of the specified allocation period (currently 2006 - 2014).

**Ridesharing:** Sharing of one vehicle by two or more commuters. While the concept of ridesharing applies primarily to carpools and vanpools, it can be applied to shuttle bus service as well.

**RTIP:** Regional Transportation Improvement Program. A list of proposed transportation projects submitted to the CTC by the regional transportation-planning agency (for the Bay Area - MTC), as a request for state funding. The individual projects are first proposed by local jurisdictions, and then submitted by the regional agency for submission to the CTC. The RTIP has a four-year planning horizon and is updated every two years.
RTP: Regional Transportation Plan. A multimodal blueprint to guide the region’s transportation development for a 25-year period. Updated every four years, it is based on projections of growth and travel demand coupled with financial assumptions. Required by state and federal law.

SAFETEA LU: Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy of Users. As an offshoot of ISTEA and TEA-21, Congress approved $244.5 billion to fund federal highways, public transportation, highway safety, and motor carrier safety programs for fiscal year 2005 through 2009.

SB-1: The Road Repair and Accountability Act of 2017 – was passed by a two-thirds majority in the California Legislature and signed into law by Governor Jerry Brown. As the largest transportation investment in California history, SB 1 is expected to raise $52.4 billion for transportation investments statewide over the next decade. Most of the funding will be directed to tackling the enormous backlog of maintenance and repairs on local streets, roads and public transit systems. Funding will also be available for mobility improvements and expanding bicycle and pedestrian access.

SB-45: Senate Bill 45 (Kopp) Governor Wilson signed SB-45 into law at the end of the 1997 legislative session. This legislation consolidated several state transportation funding programs into three funding programs and devolved state transportation programming responsibility to the county and MPO level.

SB-375: Senate Bill 375 (Steinberg). This bill became law on January 1, 2009. SB 375 was enacted after AB-32 to help meet the greenhouse gas emission goals of AB 32 by addressing the transportation and land use components of greenhouse gas emissions. SB 375 requires each of the state’s 18 metropolitan areas to reduce greenhouse gas emissions from cars and light trucks.

SB-743: Senate Bill 743 (Steinberg). This bill became law in September 2013, and directs the Governor’s Office of Planning and Research (OPR) to develop a new approach for analyzing the transportation impacts under CEQA. SB 743 also creates a new exemption for certain projects that are consistent with a Specific Plan and, eliminates the need to evaluate aesthetic and parking impacts of TOD projects, in some circumstances.

SCS: Sustainable Communities Strategy. A requirement of all California MPO’s as set forth by SB-375. The SCS is a document that outlines the region’s long-range plan for integrating transportation, housing, and land use in order to reduce greenhouse gas emissions.

SHOPP: State Highway Operations and Protection Plan. A program created by State legislation that includes state highway safety and rehabilitation projects, seismic retrofit projects, landscaping, some operational improvements, and bridge replacement. SHOPP is a four-year program of projects adopted separately from the STIP cycle. Both new (Prop 111) and old state gas tax revenues and federal funds are the basis for funding this program. The legislature and Governor have made seismic retrofit the state’s highest priority and in practice have used other STIP moneys for these projects.

SIP: State Implementation Plan. A compilation of the federal air quality plans from around the state produced by the state Air Resources Board.

SOV: Single Occupancy Vehicle. A motor vehicle occupied by one employee for commute purposes.
STIP: State Transportation Improvement Program. The STIP is a four-year planning and expenditure plan adopted by the CTC for the State Transportation System, and is updated in even years. The STIP is composed of the approved RTIPs, and Caltrans’ ITIP.

STP: Surface Transportation Program. A new flexible funding program established by ISTEA. Many mass transit and highway projects are eligible for funding under this program. Ten percent of the projects in this program must be transportation enhancement projects, and 10% must be safety projects.

TCM: Transportation Control Measure. A measure intended to reduce pollutant emissions from motor vehicles. Examples of TCMs include programs to encourage ridesharing or public transit usage, city or county trip reduction ordinances, and the use of cleaner burning fuels in motor vehicles. MTC has adopted specific TCMs, in compliance with the federal and state Clean Air Acts.

TDA: Transportation Development Account. A state law enacted in 1971, this fund collects ¼ of 1% of all retail sales in each county to fund transit, paratransit, bicycle and pedestrian improvements. The funds are collected by the state and allocated by MTC to fund projects and programs throughout their jurisdiction.

In Santa Clara County, the transit agency is the only eligible applicant for Article 4 allocations, and Article 4.5, which provides funding for community and paratransit services. This provision allows MTC to allocate another 5% of the total TDA funds that Santa Clara County claims for ADA paratransit services. Additionally, Article 3 funds (4% of the total revenue) are allocated annually for bicycle/pedestrian projects, which are nominated by the VTA.

TDM: Transportation Demand Management. This is a term used to describe policies and programs (non-engineering solutions) to reduce the number of cars on the road. Examples of transportation demand management include flextime, ridesharing, and telecommuting.

TEA-21: Transportation Equity Act for the 21st Century. TEA-21 is the successor legislation to ISTEA. Congress enacted TEA-21 in mid-1997. The legislation covers the six-year period 1997/98 to 2002/03, and extends and expands many of the funding programs developed under ISTEA. TEAQ: Transportation Energy and Air Quality (TEAQ). TEAQ is VTA’s Program to address Climate Change and energy issues that will involve smarter transportation planning, collaboration with local agencies, pursuit of funding, and the use of alternative fuel sources.

Telecommuting: A system of either working at home or at an off-site workstation with computer facilities that link to the worksite.

TFCA: Transportation Fund for Clean Air. TFCA Funds are generated by a $4.00 surcharge on vehicle registrations. The funds generated by the fee are used to implement projects and programs to reduce air pollution from motor vehicles. Health and Safety Code Section 44241 limits expenditure of these funds to specified eligible transportation control measures (TCMs) that are included in BAAQMD’s 1991 Clean Air Plan, developed and adopted pursuant to the requirements of the California Clean Air Act of 1988. BAAQMD manages 60% of the funds via a regional discretionary program. The remaining 40% are returned to each county based on annual vehicle registrations.
**TIP:** Transportation Improvement Program. A federally required document produced by the regional transportation planning agency (MTC in the Bay Area) that states investment priorities for transit and transit-related improvements, mass transit guideways, general aviation and highways. The TIP is the MTC’s principal means of implementing long-term planning objectives through specific projects.

**TMA:** Transportation Management Association. An organization of developers, property managers, employers and public officials who cooperatively provide and promote programs that mitigate traffic congestion, assist commuters, and otherwise encourage improved travel in a given area.

**Transit Priority Area:** an area within one-half mile of a major transit stop [see definition above] that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations. (California Government Code 21099 (7))

**Transportation Demand Forecasting Model:** An analytical tool that predicts travel patterns based upon the spatial relationship between various types of land uses and connecting transportation facilities (e.g., roadways and transit).

**Transportation Facility:** Any part of the designated CMP System including roadways, intersections, freeways, and bicycle, pedestrian and transit routes.

**TRO:** Trip Reduction Ordinance. A regulation passed by local government requiring employers, developers, and/or property owners to participate or assist in financing transportation management efforts. In many instances, such ordinances specify a target reduction in the number of vehicle trips expected from a development based on standardized trip reduction rates.

**TSM:** Transportation Systems Management. The use of low-cost capital improvements to increase the efficiency of road transportation and transit services. TSM measures included changing traffic signal timings to optimize the flow of traffic moving through a roadway section, or installing ramp meters at freeway on-ramps to regulate the number of vehicles entering onto the freeway at one time.

**Vanpooling:** Commuting in a seven- to 15-passenger van, with driving undertaken by commuters. The riders on a monthly basis usually pay for some portion of the van’s ownership and operating cost. The van may be privately owned, employer-sponsored with the company owning and maintaining the vehicle, or it may be provided through a private company that leases vehicles.

**Vehicle Employee Ratio:** The reciprocal of AVR. A ratio of vehicles arriving at a worksite during the peak period, divided by the number of employees reporting to work on the same day.

**Vehicle Occupancy:** The number of people riding in a vehicle at one time.

**Vehicle Trip:** A one-way movement of a vehicle between two points (e.g. origin and destination).

**VMT:** Vehicle Miles Traveled. A measure of the extent of automobile use within a specific geographic area over a given period of time. Travel demand forecasting (modeling) is typically used to analyze VMT at the project,
countywide and regional levels, although other methods such as spreadsheet analysis may be used for individual projects in some circumstances.

**Worksite:** Any place of employment, base of operation or predominant location of an employer. All buildings or facilities operated or occupied by the employer within the city and within a radius of 1.5 miles of a single centrally located building or facility operated or occupied by the same employer shall be deemed a worksite.
APPENDICES B – J AVAILABLE UNDER SEPARATE COVER
ACKNOWLEDGEMENTS

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Senior Transportation Planner

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Senior Transportation Planner

Robert Swierk, AICP
Principal Planner

Deborah Dagang
Director
BOARD MEMORANDUM

TO: Santa Clara Valley Transportation Authority
   Technical Advisory Committee

THROUGH: General Manager, Nuria I. Fernandez

FROM: Director of Planning and Programming, Deborah Dagang

SUBJECT: Land Use & Transportation Working Group Adjustment

Policy-Related Action: No
Government Code Section 84308 Applies: No

ACTION ITEM

RECOMMENDATION:

Decommission the Land Use Transportation Integration Working Group of the Technical Advisory Committee to enable a staff-led, Member Agency coordination meeting.

BACKGROUND:

The Land Use Transportation Integration Working Group (LUTI WG) was created by the Technical Advisory Committee (TAC) in 2010 to support Member Agencies on matters related to land use-transportation planning integration. The LUTI WG consists of Planning and Community Development staff from each of the county’s 15 cities, the County of Santa Clara, as well as Caltrans, the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC). There is no chairperson of the group, and the meetings are facilitated by Santa Clara Valley Transportation Authority (VTA) staff. Presently, the LUTI WG discusses information items related to land use and transportation that are of interest to Member Agencies, VTA and the other agencies. LUTI WG members participate by providing local perspectives on regional and sub regional issues in an informal format that encourages candid discussion.

The LUTI WG does not issue recommendations, but does provide the TAC with verbal summaries of the discussions that take place during its meetings.

DISCUSSION:

Because the LUTI WG is not functioning to formally advise the TAC, as originally proposed,
staff recommends that the TAC decommission the LUTI WG. This would allow staff to replace
the LUTI WG with a staff-led Member Agency coordination meeting that more closely matches
the form and manner of the existing group.

**FISCAL IMPACT:**

Prepared by: Melissa Cerezo
Memo No. 7126
BOARD MEMORANDUM

TO: Santa Clara Valley Transportation Authority
    Technical Advisory Committee

THROUGH: General Manager, Nuria I. Fernandez

FROM: Deputy GM/Chief Financial Officer, Raj Srinath

SUBJECT: 2016 Measure B Program FY2020 and FY2021 Budget Modifications

Policy-Related Action: No

Government Code Section 84308 Applies: No

ACTION ITEM

RECOMMENDATION:

Recommend that the VTA Board of Directors adopt the fiscal years 2020 and 2021 budget modifications for the Program of 2016 Measure B projects and programs.

BACKGROUND:

On November 8, 2016, the voters of Santa Clara County approved by over a two-thirds vote Measure B, a 30-year, ½ cent sales tax measure supporting transportation projects and services. The 2016 Measure B lists and describes the following nine program categories and corresponding amounts:

<table>
<thead>
<tr>
<th>Program Category</th>
<th>Amount (in 2017 Dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Streets &amp; Roads</td>
<td>$1.2 Billion</td>
</tr>
<tr>
<td>BART Phase II</td>
<td>$1.5 Billion*</td>
</tr>
<tr>
<td>Bicycle &amp; Pedestrian</td>
<td>$250 Million</td>
</tr>
<tr>
<td>Caltrain Grade Separations</td>
<td>$700 Million</td>
</tr>
<tr>
<td>Caltrain Corridor Capacity Improvements</td>
<td>$314 Million</td>
</tr>
<tr>
<td>Highway Interchanges</td>
<td>$750 Million</td>
</tr>
<tr>
<td>County Expressways</td>
<td>$750 Million</td>
</tr>
<tr>
<td>SR 85 Corridor</td>
<td>$350 Million</td>
</tr>
<tr>
<td>Transit Operations</td>
<td>$500 Million</td>
</tr>
</tbody>
</table>

*Capped at 25% of Program Tax Revenue

The ½ cent sales tax collection began on April 1, 2017. The validity of the Measure was
challenged in court and funds were held in escrow until January 30, 2019, when all appeals were exhausted and the Measure was upheld.

The development of the FY2020 and FY2021 Program of 2016 Measure B project and programs began in fall 2018. The VTA Board of Directors appropriated 2016 Measure B funds for the following projects and programs as part of its FY2020 and FY2021 budget adoption on June 6, 2019.

**Adopted FY2020 & FY2021 2016 Measure B Budget ($ Millions)**

<table>
<thead>
<tr>
<th>Program Category</th>
<th>FY20</th>
<th>FY21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Costs</td>
<td>3.30</td>
<td>3.30</td>
</tr>
<tr>
<td>Local Streets &amp; Roads</td>
<td>40.00</td>
<td>40.00</td>
</tr>
<tr>
<td>Transit Operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enhance Core Network</td>
<td>12.00</td>
<td>12.00</td>
</tr>
<tr>
<td>Innovative Transit Models</td>
<td>1.50</td>
<td>1.50</td>
</tr>
<tr>
<td>Expand Mobility &amp; Affordable Fares</td>
<td>2.50</td>
<td>2.50</td>
</tr>
<tr>
<td>Improve Amenities</td>
<td>1.30</td>
<td></td>
</tr>
<tr>
<td>Bicycle &amp; Pedestrian</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education/Encouragement</td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>Capital Projects</td>
<td>13.33</td>
<td></td>
</tr>
<tr>
<td>Planning Projects</td>
<td>0.83</td>
<td></td>
</tr>
<tr>
<td>BART Phase II</td>
<td>150.00</td>
<td></td>
</tr>
<tr>
<td>Caltrain Grade Separation</td>
<td>31.00</td>
<td></td>
</tr>
<tr>
<td>Caltrain Corridor Capacity</td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>SR 85 Corridor</td>
<td>2.50</td>
<td></td>
</tr>
<tr>
<td>County Expressways</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>Highway Interchanges</td>
<td>119.90</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$442.46</strong></td>
<td></td>
</tr>
</tbody>
</table>

**DISCUSSION:**

As the funded projects and programs move forward, some of the needs identified and approved with the adoption of the FY2020 and FY2021 Biennial Budget have shifted. As such, VTA staff recommends that the Board of Directors appropriate additional 2016 Measure B funds and reallocate approved allocations for projects and programs in the following two program categories for FY2020.

**Caltrain Corridor Capacity Improvements**

The Diridon Station partners, comprised of VTA, Caltrain, the City of San Jose and CA High Speed Rail, are finalizing the costs and funding plan for Phase II of the Diridon Station.
Integrated Concept Plan. Work for Phase II is expected to begin in spring 2020. Caltrain has requested up to $1 million in 2016 Measure B funds in FY2020 as their anticipated share of the effort.

VTA and Caltrain will work together to streamline the financial transactions for this funding, as VTA is the project manager for the Diridon Station Integrated Concept Plan.

Caltrain’s Business Plan dictates that a sealed corridor will be necessary to operate high levels of Caltrain service. Upon completion of the Business Plan, anticipated early 2020, Caltrain intends to conduct a Corridor-wide Grade Crossing Policy which will further the development of a comprehensive framework to address and support the improvement of at-grade crossings and the delivery of grade separations as train service on the corridor increases. The Corridor-wide Grade Crossing Policy will help corridor cities address what is a corridor-wide megaproject in terms of project development, funding/financing and implementation.

Caltrain has requested $3.3 million in 2016 Measure B funds for the Santa Clara County share of the study. The 2016 Measure B funds will be available to Caltrain upon commitment of funding from the City and County of San Francisco and the San Mateo County Transportation Authority and execution of a funding agreement for the Corridor-wide Grade Crossing Policy and by reimbursement only.

Staff proposes increasing the Caltrain Corridor Capacity Program Category by $4,300,000 to meet the request by Caltrain for these two efforts.

**Highway Interchanges**

The FY2018/FY2019 2016 Measure B Highway Interchange Program Category budget included $34 million for the completion of the SR237/Mathilda Avenue and US101/Mathilda Avenue Interchange improvement project. In addition to 2016 Measure B funds, this project was awarded $17 million of Senate Bill 1 funding. As such, the SR237/Mathilda Avenue and US101/Mathilda Avenue Interchange improvement project intends to return $12 million in allocation to the 2016 Measure B Highway Interchange Program Category to provide allocation to previously approved projects that require additional funding for completion.

The City of San Jose has requested that the allocation of $1 million for the US 101/Old Oakland Rd. Interchange Improvements project be added to the existing $2 million allocation for the US 101/Mabury Rd./Taylor St. Interchange Construction project. As part of the US 101/Mabury Rd./Taylor St. Interchange feasibility study for the Project Approval and Environmental Documentation (PA&ED) phase, the City of San Jose will conduct all of the required traffic and environmental studies for a US 101/Berryessa Rd. alternative in addition to the US 101/Mabury Rd./Taylor St. alternative. This additional work will require an increase in allocation to US 101/Mabury Rd./Taylor St. Interchange Construction project.

The US 101/Berryessa intersection is located between the US 101/Mabury Rd./Taylor St. Interchange Construction project and the US 101/Old Oakland Rd. Interchange Improvements project. The location is within both projects’ existing study areas. The US 101/Old Oakland Rd.
Interchange Improvements project will be put on hold until the US 101/Mabury Rd./Taylor St. Interchange feasibility study for PA&ED is completed and will not need the allocation at this time. The revised allocation for the US 101/Mabury Rd./Taylor St. Interchange project will be $3 million.

The projects and their original allocations identified in the table below were approved by the Board of Directors in either the FY2018/FY2019 or FY2020/FY2021 Biennial Budgets. The net zero change requestec for the Highway Interchange Program Category is as follows:

<table>
<thead>
<tr>
<th>Project</th>
<th>Original Budget</th>
<th>Change</th>
<th>New Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR237/Mathilda Ave.&amp; US101/Mathilda Ave.</td>
<td>$34,000,000</td>
<td>($12,000,000)</td>
<td>$22,000,000</td>
</tr>
<tr>
<td>US101/Blossom Hill Rd. IC Improvements</td>
<td>$28,100,000</td>
<td>$6,900,000</td>
<td>$35,000,000</td>
</tr>
<tr>
<td>SR237 Westbound On-Ramp at Middlefield Rd.</td>
<td>$4,000,000</td>
<td>$2,300,000</td>
<td>$6,300,000</td>
</tr>
<tr>
<td>I-280 Northbound: Second Exit Lane to Foothill Expressway</td>
<td>$3,500,000</td>
<td>$1,300,000</td>
<td>$4,800,000</td>
</tr>
<tr>
<td>Hwy Transportation Operations</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
<td>$2,000,000</td>
</tr>
<tr>
<td>System/Freeway Performance Initiative Phase 1 &amp; 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calaveras Boulevard Widening - Near-term</td>
<td>$1,800,000</td>
<td>$500,000</td>
<td>$2,300,000</td>
</tr>
<tr>
<td>Improvements</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US 101/Old Oakland Rd Interchange Improvements</td>
<td>$1,000,000</td>
<td>($1,000,000)</td>
<td>$0</td>
</tr>
<tr>
<td>US 101/Mabury Rd./Taylor St. Interchange</td>
<td>$2,000,000</td>
<td>$1,000,000</td>
<td>$3,000,000</td>
</tr>
</tbody>
</table>

There is no increase in allocation for the Highway Interchange Program Category. Attachment A provides a complete listing of projects with currently approved and recommended revised appropriations.

**ALTERNATIVES:**

The Board of Directors could choose not to reallocate 2016 Measure B funds within the Highway Interchange Program Category at this time and wait for the next biennial budget cycle beginning July 1, 2021. This will significantly impact the delivery of the identified highway projects, especially the three projects that need the augmentation for construction.

Without increasing appropriation for the Caltrain Corridor Improvements Program Category, the progress of both the Diridon Station Integrated Concept Plan Phase II or the Corridor-wide Grade Crossing Policy may be stalled. As with the Highway Interchange Program Category, the Board of Directors can choose to wait for the next biennial budget to fund these efforts.

**FISCAL IMPACT:**

Page 4 of 5
If approved, this action will increase and change the distribution of 2016 Measure B budget authority in FY2020 and FY2021.

Prepared by: Jane Shinn
Memo No. 7103

ATTACHMENTS:
- MT7103_AttachmentA_Revised_FY20FY21_HwyProjects (PDF)
## ATTACHMENT A: DETAILED 2016 MEASURE B HIGHWAY PROGRAM BUDGET REQUEST

<table>
<thead>
<tr>
<th>ID</th>
<th>Route</th>
<th>Project Title</th>
<th>Total Project Cost ($M)</th>
<th>Jurisdiction</th>
<th>Implementing Agency</th>
<th>MB FY 18 - FY 19 Appropriation</th>
<th>MB FY 20 - FY 21 Request</th>
<th>FY 18-21 Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>SR 17</td>
<td>Southbound/Hamilton Ave. Off-Ramp Widening</td>
<td>$2.0</td>
<td>Campbell</td>
<td>Campbell</td>
<td>$1.0000</td>
<td>$0.0000</td>
<td>$1.0000</td>
</tr>
<tr>
<td>B</td>
<td>SR 17</td>
<td>San Tomas Expressway Interim Improvements</td>
<td>$1.0</td>
<td>Campbell</td>
<td>Campbell</td>
<td>$1.0000</td>
<td>$0.0000</td>
<td>$1.0000</td>
</tr>
<tr>
<td>C</td>
<td>All</td>
<td>Hwy. Transportation Operations System/Freeway Performance Initiative Phase 1 &amp; 2</td>
<td>$54.0</td>
<td>Countywide</td>
<td>VTA</td>
<td>$1.0000</td>
<td>$0.0000</td>
<td>$2.0000</td>
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<tr>
<td>D</td>
<td>All</td>
<td>Noise Abatement Program (Countywide)</td>
<td>$50.0</td>
<td>Countywide</td>
<td>VTA</td>
<td>$4.0000</td>
<td>$0.0000</td>
<td>$4.0000</td>
</tr>
<tr>
<td>E</td>
<td>280</td>
<td>I-280/Wolfe Rd. Interchange Improvements</td>
<td>$86.0</td>
<td>Cupertino</td>
<td>VTA</td>
<td>$6.0000</td>
<td>$1.5000</td>
<td>$7.5000</td>
</tr>
<tr>
<td>F</td>
<td>280</td>
<td>I-280 Northbound: Second Exit Lane to Foothill Expressway</td>
<td>$5.5</td>
<td>Cupertino, Los Alamos</td>
<td>VTA</td>
<td>$3.5000</td>
<td>$0.0000</td>
<td>$3.5000</td>
</tr>
<tr>
<td>G</td>
<td>17</td>
<td>Highway 17 Corridor Congestion Relief including SR 17/SR 9 interchange</td>
<td>$50.0</td>
<td>Los Gatos</td>
<td>VTA</td>
<td>$0.0000</td>
<td>$5.4000</td>
<td>$5.4000</td>
</tr>
<tr>
<td>H</td>
<td>152</td>
<td>US 101/SR 25 Interchange (ENV/PS&amp;E)</td>
<td>$65.0</td>
<td>Gilroy</td>
<td>VTA</td>
<td>$2.0000</td>
<td>$8.0000</td>
<td>$10.0000</td>
</tr>
<tr>
<td>I</td>
<td>101</td>
<td>US 101/Buena Vista Ave. Interchange Improvements</td>
<td>$35.0</td>
<td>Gilroy</td>
<td>VTA</td>
<td>$1.0000</td>
<td>$0.0000</td>
<td>$1.0000</td>
</tr>
<tr>
<td>J</td>
<td>237</td>
<td>Calaveras Boulevard Widening - Near-term improvements</td>
<td>$2.5</td>
<td>Milpitas</td>
<td>VTA</td>
<td>$1.0000</td>
<td>$0.8000</td>
<td>$1.8000</td>
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<tr>
<td>K</td>
<td>237</td>
<td>SR 237 Westbound On-Ramp at Middlefield Road</td>
<td>$50.0</td>
<td>Mt View</td>
<td>VTA</td>
<td>$0.0000</td>
<td>$4.0000</td>
<td>$4.0000</td>
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<tr>
<td>L</td>
<td>101</td>
<td>US 101 Interchanges Improvements: San Antonio Rd. to Charleston Rd./Rengstorff Ave.</td>
<td>$35.0</td>
<td>Palo Alto, Mt View</td>
<td>VTA</td>
<td>$1.0000</td>
<td>$1.0000</td>
<td>$2.0000</td>
</tr>
<tr>
<td>M</td>
<td>101</td>
<td>US 101 Southbound/Trimble Rd./De La Cruz Blvd./Central Expwy. Interchange Improvements</td>
<td>$60.0</td>
<td>San Jose</td>
<td>VTA</td>
<td>$4.0000</td>
<td>$35.0000</td>
<td>$39.0000</td>
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<tr>
<td>N</td>
<td>101</td>
<td>Double Lane Southbound US 101 off-ramp to Southbound SR 87</td>
<td>$3.0</td>
<td>San Jose</td>
<td>VTA</td>
<td>$1.5000</td>
<td>$1.0000</td>
<td>$2.5000</td>
</tr>
<tr>
<td>O</td>
<td>101</td>
<td>US 101/Mabury Rd./Taylor St. Interchange Construction</td>
<td>$95.0</td>
<td>San Jose</td>
<td>San Jose</td>
<td>$2.0000</td>
<td>$0.0000</td>
<td>$2.0000</td>
</tr>
<tr>
<td>P</td>
<td>280</td>
<td>I-280/Winchester Blvd. Interchange Improvements</td>
<td>$90.0</td>
<td>San Jose</td>
<td>VTA</td>
<td>$3.0000</td>
<td>$6.0000</td>
<td>$9.0000</td>
</tr>
<tr>
<td>Q</td>
<td>87</td>
<td>SR 87 Technology-based Corridor Improvements - (SR 87 Charcot On-ramp HOV Bypass)</td>
<td>$3.0</td>
<td>San Jose</td>
<td>VTA</td>
<td>$1.0000</td>
<td>$1.7000</td>
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<tr>
<td>R</td>
<td>101</td>
<td>US 101/Zanker Rd./Skyport Dr./Fourth St. Interchange Improvements</td>
<td>$162.0</td>
<td>San Jose</td>
<td>VTA</td>
<td>$3.0000</td>
<td>$6.0000</td>
<td>$9.0000</td>
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<tr>
<td>S</td>
<td>101</td>
<td>US 101/Old Oakland Rd. Interchange Improvements</td>
<td>$25.0</td>
<td>San Jose</td>
<td>San Jose</td>
<td>$1.0000</td>
<td>$0.0000</td>
<td>$1.0000</td>
</tr>
<tr>
<td>T</td>
<td>101</td>
<td>US 101/Blossom Hill Rd. Interchange Improvements</td>
<td>$42.0</td>
<td>San Jose</td>
<td>San Jose</td>
<td>$4.0000</td>
<td>$24.1000</td>
<td>$28.1000</td>
</tr>
<tr>
<td>U</td>
<td>880</td>
<td>Charcot Overcrossing</td>
<td>$50.0</td>
<td>San Jose</td>
<td>San Jose</td>
<td>$12.0000</td>
<td>$25.0000</td>
<td>$37.0000</td>
</tr>
<tr>
<td>V</td>
<td>237</td>
<td>SR 237/Mathilda Ave. and US 101/Mathilda Ave. Interchange Improvement + follow-up Landscaping</td>
<td>$47.0</td>
<td>Sunnyvale</td>
<td>VTA</td>
<td>$34.0000</td>
<td>$0.0000</td>
<td>$34.0000</td>
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<tr>
<td></td>
<td></td>
<td>Highway Program Management/Oversight</td>
<td></td>
<td></td>
<td>VTA</td>
<td>$0.0000</td>
<td>$0.4000</td>
<td>$0.4000</td>
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<tr>
<td></td>
<td></td>
<td>Totals</td>
<td></td>
<td></td>
<td></td>
<td>$87.0000</td>
<td>$119.90</td>
<td>$206.90</td>
</tr>
</tbody>
</table>

**REVISED FY 18-21 Total**
BOARD MEMORANDUM

TO: Santa Clara Valley Transportation Authority
   Technical Advisory Committee

THROUGH: General Manager, Nuria I. Fernandez

FROM: Deputy GM/Chief Financial Officer, Raj Srinath

SUBJECT: 2016 Measure B Program Update

FOR INFORMATION ONLY

BACKGROUND:

On November 8, 2016, the voters of Santa Clara County approved by over a two-thirds vote Measure B, a 30-year, ½ cent sales tax measure supporting transportation projects and services. The 2016 Measure B lists and describes the following nine program categories and corresponding amounts:

<table>
<thead>
<tr>
<th>Program Category</th>
<th>Amount (in 2017 Dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Streets &amp; Roads</td>
<td>$1.2 Billion</td>
</tr>
<tr>
<td>BART Phase II</td>
<td>$1.5 Billion*</td>
</tr>
<tr>
<td>Bicycle &amp; Pedestrian</td>
<td>$250 Million</td>
</tr>
<tr>
<td>Caltrain Grade Separations</td>
<td>$700 Million</td>
</tr>
<tr>
<td>Caltrain Corridor Capacity Improvements</td>
<td>$314 Million</td>
</tr>
<tr>
<td>Highway Interchanges</td>
<td>$750 Million</td>
</tr>
<tr>
<td>County Expressways</td>
<td>$750 Million</td>
</tr>
<tr>
<td>SR 85 Corridor</td>
<td>$350 Million</td>
</tr>
<tr>
<td>Transit Operations</td>
<td>$500 Million</td>
</tr>
</tbody>
</table>

*Capped at 25% of Program Tax Revenue

The ½ cent sales tax collection began on April 1, 2017. The validity of the Measure was challenged in court and funds were held in escrow until January 30, 2019, when all appeals were exhausted and the Measure was upheld.

DISCUSSION:

Staff will provide an update on 2016 Measure B Program activities.
Prepared By: Jane Shinn
Memo No. 7156
2016 Measure B Program Overview

- Revenues received through June 2019
  - $494.8 million
- Interest earned through June 2019
  - $5.6 million
- Expenses through June 2019
  - $40.3 million
2016 Measure B Program Budget

• FY18/FY19 - $308.86 million
• FY20/FY21 - $442.46 million
• Total Allocations - $751.32 million
Local Streets & Roads

- All Master Funding Agreements executed
- FY20 Documentation due October 1
  - Maintenance of Effort Self-Certification
  - Complete Streets Pavement Program Checklist
  - Program of Projects
• No 2016 Measure B activities

• BART Phase II website:
  • https://www.vta.org/projects/bart-sv/phase-ii
Bicycle & Pedestrian

- Education & Encouragement - Formula
  - Funding agreement to cities for execution

- Capital projects – Competitive
  - Criteria approved Oct BOD
  - Call for Projects – Winter 2019

- Planning projects – Competitive
  - Criteria in development
Caltrain Grade Separation

- Implementation Plan
  - Completion late 2019

- Regular meetings with stakeholder staff

Solutions that move you
Caltrain Corridor Capacity

- Rescheduling of existing South County Caltrain service effective October 2019

- San Jose Diridon Station Plan Phase II
  - Anticipate beginning early 2020

- Caltrain requesting funds for a Corridor-wide Grade Crossings Policy
Highway Interchanges

- Most projects in early development stages
- Includes VTA and City-delivered projects
- Noise Abatement Program
• Agreement with Santa Clara County
  • Roles & responsibilities

• Santa-Teresa Hale Corridor Road and Trail between Dewitt and Main (Phase I) Project
  • Funding Agreement with Morgan Hill under development
SR85 Corridor

- Transit Guideway Study
  - Anticipate SR85 PAB recommendation early 2020

- Five noise abatement pilot projects
  - Anticipate release of RFP by end of 2019
Transit Operations

- Enhance Core Network - VTA
- Innovative Transit Models – Competitive
  - Draft criteria
    - Nov Committees/Dec BOD
- Expand Mobility & Affordable Fares - VTA
- Improve amenities – VTA
  - Bus Stop Improvements Program
    - Prioritizing sites
    - Purchasing Shelters
2016 Measure B Program Overview

- Developing transparency website
  - Anticipate go-live early 2020

- Formalizing Program Oversight Roles

- Developing 10-year Revenue & Expenditure Outlook
  - Spring/summer 2020

- Continue to build Program Office team
Questions?
<table>
<thead>
<tr>
<th>Funding Source*</th>
<th>Purpose</th>
<th>Administrator</th>
<th>Potential Applicable 2016 Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTA Pilot program for expedited project delivery</td>
<td>The Pilot Program for Expedited Project Delivery allows FTA to select up to eight capital transit projects for expedited grant awards. Projects must be supported through a public-private partnership, be operated and maintained by employees of an existing public transportation provider, and have a federal share not exceeding 25 percent of the project capital cost.</td>
<td>FTA</td>
<td>BART Phase 2</td>
</tr>
<tr>
<td>FTA Section 5307 Urbanized Area Formula Program</td>
<td>Purchase of buses, trains, ferries, vans, and other capital improvement, and Americans with Disabilities Act (ADA) required paratransit service. Distributed through the regional Transit Capital Priorities process.</td>
<td>FTA/MTC</td>
<td>Transit Operations (Capital state of good repair projects)</td>
</tr>
<tr>
<td>FTA Section 5339 Bus and Bus Facilities Program</td>
<td>Provides capital assistance for new and replacement buses, related equipment, and facilities. Part of the Transit Capital Priorities process.</td>
<td>FTA/MTC</td>
<td>Transit Operations (Capital state of good repair projects)</td>
</tr>
<tr>
<td>FTA Section 5312 Research, Development, Demonstration, and Deployment</td>
<td>To support research activities that improve the safety, reliability, efficiency, and sustainability of public transportation by investing in the development, testing, and deployment of innovative technologies, materials, and processes.</td>
<td>FTA</td>
<td>Transit Operations</td>
</tr>
<tr>
<td>Mobility on Demand (MOD) Sandbox Demonstration Program</td>
<td>To fund project teams to innovate, explore partnerships, develop new business models, integrate transit and MOD solutions, and investigate new, enabling technical capabilities such as integrated payment systems, decision support, and incentives for traveler choices.</td>
<td>FTA</td>
<td>Transit Operations</td>
</tr>
<tr>
<td>Pilot Program for Transit-Oriented Development Planning</td>
<td>Funding to local communities to integrate land use and transportation planning with a new fixed guideway or core capacity transit capital investment</td>
<td>FTA</td>
<td>BART Phase 2, Caltrain Corridor Capacity Improvement</td>
</tr>
<tr>
<td>Public Transportation Innovation</td>
<td>Funding to develop innovative products and services assisting transit agencies in better meeting the needs of their customers.</td>
<td>FTA</td>
<td>Transit Operations</td>
</tr>
<tr>
<td>Highway Safety Improvement Program (HSIP)</td>
<td>California's Local HSIP focuses on infrastructure projects with nationally recognized crash reduction factors (CRFs).</td>
<td>Caltrans</td>
<td>Highway Interchange</td>
</tr>
<tr>
<td>FHWA – Surface Transportation Program (STP)</td>
<td>To preserve and improve conditions and performance on any Federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals. Portion of funds included in OneBayArea Grant program.</td>
<td>FHWA / MTC</td>
<td>Bicycle &amp; Pedestrian, Local Streets &amp; Roads</td>
</tr>
<tr>
<td>FHWA – Congestion Mitigation and Air Quality Improvement Program (CMAQ)</td>
<td>Transportation projects that improve air quality and relieve congestion. Portion of funds included in OneBayArea Grant program.</td>
<td>FHWA / Caltrans / MTC</td>
<td>Bicycle &amp; Pedestrian, Local Streets &amp; Roads</td>
</tr>
<tr>
<td>FTA Section 5309 Fixed Guideway Capital Investment Grants (New Starts, Small Starts and Core Capacity)</td>
<td>Capital support for light rail, rapid rail, commuter rail, automated fixed guideway systems, or a busway/high occupancy vehicle (HOV) facility, or an extension of any of these. Under MAP-21, includes &quot;core capacity&quot; projects on existing rail lines to improve capacity of the corridor.</td>
<td>FTA</td>
<td>Caltrain Grade Separation, Caltrain Corridor Capacity Improvements</td>
</tr>
<tr>
<td>Transportation Alternatives Program (TAP)</td>
<td>Eligible activities consist of Transportation Alternatives, Recreational Trails, Safe Routes to School, Planning/Design/Construction of roadway in right of way of former highways. Set aside of the apportionment of several fund programs.</td>
<td>Caltrans</td>
<td>Bicycle &amp; Pedestrian</td>
</tr>
<tr>
<td>Highway-Rail Grade Crossings Program</td>
<td>Develop and implement safety improvement projects to reduce the number and severity of accidents at public highway-rail grade crossings, including signing and pavement markings at crossings, active warning devices, crossing surface improvements, sight distance improvements, grade separations, and the closing and consolidation of crossings.</td>
<td>FHWA / Caltrans</td>
<td>Caltrain Grade Separation, Caltrain Corridor Capacity Improvements</td>
</tr>
<tr>
<td>Better Utilizing Investments to Leverage Development (BUILD)</td>
<td>The BUILD Discretionary Grant program provides a unique opportunity for the DOT to invest in road, rail, transit and port projects that promise to achieve critical national objectives.</td>
<td>USDOT</td>
<td>Highway Interchange, Caltrain Corridor Capacity Improvements</td>
</tr>
</tbody>
</table>

*Note: Funding sources presented in no particular order

Source: San Mateo County Transportation Authority Strategic Plan 2014-2019
<table>
<thead>
<tr>
<th>Funding Source*</th>
<th>Purpose</th>
<th>Administrator</th>
<th>Potential Applicable 2016 Measure B Program</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>State of California Transit and Intercity Rail Capital Program (TIRCP)</strong></td>
<td>Fund transformative capital improvements that will modernize California’s intercity, commuter, and urban rail systems, and bus and ferry transit systems. The program’s goal is to reduce emissions of greenhouse gases by reducing congestion and vehicle miles traveled throughout California.</td>
<td>Caltrans</td>
<td>BART Phase 2, Caltrain Grade Separation, Caltrain Corridor Capacity Improvements.</td>
</tr>
<tr>
<td><strong>Senate Bill 1 - Maintenance and Rehabilitation of the State Highway System</strong></td>
<td>Fund state highway improvements including repairing and resurfacing hundreds of miles of highways to extend the service life of California roads, fix/replace bridges, culverts, and drainage</td>
<td>Caltrans</td>
<td>Highway Interchange</td>
</tr>
<tr>
<td><strong>Senate Bill 1 - Trade Corridor Enhancement Program</strong></td>
<td>Fund freight projects along important trade corridor routes.</td>
<td>Caltrans</td>
<td>Highway Interchange</td>
</tr>
<tr>
<td><strong>Senate Bill 1 - Repairs to Local Streets and Roads</strong></td>
<td>Improve local streets and roads, expand the state’s growing network of pedestrian and cycle routes, and increase transit service.</td>
<td>Caltrans Local Streets &amp; Roads</td>
<td>Caltrain Grade Separation, Caltrain Corridor Capacity Improvements, Highway Interchange, County Expressways, State Route 85 Corridor</td>
</tr>
<tr>
<td><strong>Senate Bill 1 - Solutions for Congested Corridors Program</strong></td>
<td>Money from this new program will go to projects from regional agencies and the state that will improve traffic flow and mobility along the state’s most congested routes while also seeking to improve air quality and health.</td>
<td>Caltrans</td>
<td>All programs</td>
</tr>
<tr>
<td><strong>Senate Bill 1 - Local Partnership Program</strong></td>
<td>This money will go to local entities who are already making their own extra investment in transportation. These matching funds will support the efforts of cities and counties with voter-approved transportation tax measures.</td>
<td>Caltrans</td>
<td>Bicycle &amp; Pedestrian</td>
</tr>
<tr>
<td><strong>Senate Bill 1 - Bike and Pedestrian Projects</strong></td>
<td>This will go to cities, counties and regional transportation agencies to build or convert more bike paths, crosswalks and sidewalks. It is a significant increase in funding for these projects through the Active Transportation Program (ATP).</td>
<td>Caltrans</td>
<td>Bicycle &amp; Pedestrian</td>
</tr>
<tr>
<td><strong>State Highway Operation and Protection Program (SHOPP)</strong></td>
<td>State highway rehabilitation projects</td>
<td>Caltrans</td>
<td>Highway Interchange</td>
</tr>
<tr>
<td><strong>Transportation Development Act (TDA)</strong></td>
<td>Transit capital and operating expenses</td>
<td>MTC</td>
<td>Transit Operations</td>
</tr>
<tr>
<td><strong>State Transit Assistance Funds (STA)</strong></td>
<td>Transit capital and operating expenses</td>
<td>MTC</td>
<td>Transit Operations</td>
</tr>
<tr>
<td><strong>Transportation Development Act Article 3 (TDA 3)</strong></td>
<td>Provide funding annually for bicycle and pedestrian projects.</td>
<td>MTC</td>
<td>Bicycle &amp; Pedestrian</td>
</tr>
<tr>
<td><strong>State Transportation Improvement Program (STIP) / Regional Transportation Improvement Program (RTIP)</strong></td>
<td>Roadway and transit capital improvement projects, road rehabilitation, interregional improvements</td>
<td>Caltrans / MTC</td>
<td>Highway Interchange, Local Streets &amp; Roads, County Expressways, State Route 85 Corridor</td>
</tr>
<tr>
<td><strong>Office of Traffic Safety (OTS)</strong></td>
<td>Safety projects, with pedestrian/bicycle safety a priority.</td>
<td>Caltrans OTS</td>
<td>Bicycle &amp; Pedestrian</td>
</tr>
<tr>
<td><strong>Active Transportation Program (ATP)</strong></td>
<td>Consolidation of previous bicycle and pedestrian funding programs and is designed to promote active modes of transportation, such as walking and biking, and to ensure disadvantaged communities share fully in the program.</td>
<td>Caltrans</td>
<td>Bicycle &amp; Pedestrian</td>
</tr>
<tr>
<td><strong>California Sustainable Transportation Planning Grant Program</strong></td>
<td>Funds a wide range of transportation planning studies that promote a balanced comprehensive multimodal transportation system. Consists of Strategic Partnerships and Sustainable Communities grants. Replaces former environmental justice, community based and transit planning grant activities, which are eligible under the new program.</td>
<td>Caltrans</td>
<td>Transit Operations</td>
</tr>
<tr>
<td><strong>Cap and Trade Program</strong></td>
<td>Reduction of the region’s transportation-related emissions by: Support Communities of Concern (25% of revenues); Supports Transit Core Capacity Challenge Grant Program, Transit Operating and Efficiency Program, OneBayArea Grant program; Climate Initiatives Program, including Safe Routes to Schools, and goods movement projects.</td>
<td>Various State Agencies</td>
<td>Bicycle &amp; Pedestrian, Transit Operations</td>
</tr>
<tr>
<td><strong>Section 190 Program</strong></td>
<td>Provides funding to projects that either alter or reconstruct existing grade separations, construct new grade separations to eliminate existing at-grade crossings or relocate roadways to eliminate at-grade crossings, thereby improving safety and expediting the moment of vehicles. Eligible projects must first be nominated to the California Public Utilities Commission’s Grade Separation Priority List.</td>
<td>Caltrans</td>
<td>Caltrain Grade Separation</td>
</tr>
</tbody>
</table>

*Note: Funding sources presented in no particular order

Source: San Mateo County Transportation Authority Strategic Plan 2014-2019
## LOCAL/REGIONAL FUNDING SOURCES

<table>
<thead>
<tr>
<th>Funding Source*</th>
<th>Purpose</th>
<th>Administrator</th>
<th>Potential Applicable 2016 Measure B Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Bridge Tolls</td>
<td>Projects that mitigate and relieve traffic congestion on the bridges (AB 664, 2%-5%, Regional Measure 2, Regional Measure 3)</td>
<td>MTC</td>
<td>BART Phase 2</td>
</tr>
<tr>
<td>Vehicle Emissions Reductions Based at Schools (VERBS) Program</td>
<td>Reduce greenhouse gases (GHG) by promoting walking, biking, transit, and carpooling to school.</td>
<td>MTC</td>
<td>Bicycle &amp; Pedestrian</td>
</tr>
<tr>
<td>OneBayArea Grant Program</td>
<td>Integrates the region’s federal transportation program with California’s climate law and Sustainable Communities Strategy; provides funding investments in surface transportation for a wide variety of programs including mass transit, highway, local road and bicycle and pedestrian projects.</td>
<td>MTC</td>
<td>Local Streets &amp; Roads, Bicycle &amp; Pedestrian, Highway Interchange, County Expressways</td>
</tr>
<tr>
<td>Transportation Fund for Clean Air (TFCA)</td>
<td>Funds regional competitive and county funding categories. Implementation of the most cost-effective projects in the Bay Area which will decrease motor vehicle emissions and improve air quality.</td>
<td>Bay Area Air Quality Management District (BAAQMD)</td>
<td>Local Streets &amp; Roads, Bicycle &amp; Pedestrian, Transit Operations, County Expressways</td>
</tr>
<tr>
<td>Gasoline Tax Subventions</td>
<td>Local streets and road maintenance and rehabilitation</td>
<td>Cities and Counties</td>
<td>Local Streets &amp; Roads</td>
</tr>
<tr>
<td>Pavement Management Technical Assistance Program (PTAP)</td>
<td>Resources for jurisdictions to better understand their pavement condition to make decisions about pavement maintenance and rehabilitation investments.</td>
<td>MTC</td>
<td>Local Streets &amp; Roads</td>
</tr>
<tr>
<td>Vehicle Registration Fee</td>
<td>$10 per year vehicle registration fee in Santa Clara County to pay for local transportation improvements, including pothole repair, paving, traffic control signals, and safety improvements.</td>
<td>VTA</td>
<td>Local Streets &amp; Roads, Bicycle &amp; Pedestrian, Highway Interchange</td>
</tr>
<tr>
<td>Developer Impact Fees</td>
<td>Cost to local government of a new development, including roads, sidewalks, sewers, and utilities</td>
<td>Local Governments</td>
<td>All programs</td>
</tr>
<tr>
<td>Property-based Business Improvement District (PBID) / Other Assessments</td>
<td>Generally downtown improvements and services associated with businesses.</td>
<td>Local Governments</td>
<td>Local Streets &amp; Roads, Bicycle &amp; Pedestrian</td>
</tr>
</tbody>
</table>

*Note: Funding sources presented in no particular order

Source: San Mateo County Transportation Authority Strategic Plan 2014-2019
BOARD MEMORANDUM

TO: Santa Clara Valley Transportation Authority
   Technical Advisory Committee

THROUGH: General Manager, Nuria I. Fernandez

FROM: Deputy GM/Chief Financial Officer, Raj Srinath

SUBJECT: Revised VTA Transit-Oriented Development Policy

Policy-Related Action: Yes  Government Code Section 84308 Applies: No

ACTION ITEM

RECOMMENDATION:

Recommend that the VTA Board of Directors adopt the updated VTA Transit Oriented Development (TOD) Policy, Attachment A to this memorandum, as the successor to the current VTA Joint Development Policy.

BACKGROUND:

VTA’s Joint Development Program began in 2005 upon VTA Board approval of the Joint Development Policy. Since 2005, the VTA Board has approved several policy updates including the Joint Development Affordable Housing Policy in 2016 and the Transit-Oriented Development (TOD) Parking Policy in December of 2018.

In 2018, VTA’s Auditor General (AG) reviewed the Joint Development Policy and the program’s solicitation practices. The AG report provided suggestions for updates to policy framework and workflow guidance. Concurrent with the review, as outlined in a presentation to the April 2019 Board of Directors meeting, staff has been evaluating a comprehensive update to the current Joint Development Policy due to the challenges facing VTA in pursuing more public-private partnerships for TOD projects during increasingly challenging market conditions, as well as ongoing significant changes in State legislation.

VTA’s TOD (Joint Development) portfolio at buildout offers the potential, through coordination with local land use authorities, to develop 6,000 or more housing units with 2,000+ affordable, and over 4 million square feet of new employment uses that would result in 13,000+ new jobs. This development would generate significant new long-term revenues for VTA and result in
approximately 7,000 or more new riders for local transit. Additional TOD associated with Phase 2 of the BART Silicon Valley Extension would add to these figures.

**DISCUSSION:**

A renaming of VTA’s *Joint Development* Program and *Joint Development* Policy to the *TOD* Program and *TOD* Policy would enhance developer and public understanding of what VTA seeks to accomplish because of the more widespread understanding of TOD and the elements of a successful TOD project. ‘Joint Development’ is a transit industry reference to a Federal Transit Administration (FTA) program that is not well understood in the development industry. The FTA requirements do not apply to those VTA sites where there is no federal interest.

The updated policy framework aims to refine the three priority goals of the JD Policy to better reflect VTA’s current approach:

- **Generate revenues to support transit capital investment and operations.**
- **Increase ridership overall and throughout non-commute periods.**
- **Leverage TOD projects as catalysts to create equitable Transit-Oriented Communities around transit stations, including affordable housing production.**

VTA staff reviewed other agency TOD policies, and worked with experts in TOD and affordable housing, on best practices for TOD and the project development process. Figure 1 highlights the five stages for creation of successful TOD projects in a manner intended to be understandable for the public, communities, as well as developers:
Figure 1: Transit-Oriented Development Process

The attached proposed VTA TOD Policy (Attachment A) provides more detailed explanation on VTA’s TOD goals and requirements and objectives for TOD projects. It contains all existing requirements and Board adopted policy changes, including those for affordable housing and TOD parking, in a more concise document that is more easily understood. The proposed policy update also addresses the findings in the AG report on TOD. Certain sections of the existing Joint Development Policy that are no longer relevant have been deleted, such as the 2009 process for evaluation of sites for disposal that has since been completed. The existing Joint Development Policy, which is to be replaced with the VTA TOD Policy, is attached for reference (Attachment B).

**ALTERNATIVES:**

The Board of Directors could revise the proposed policy update as it sees fit, and/or provide direction for additional research and revisions by staff to be presented for further consideration by the Board.
FISCAL IMPACT:

Updated TOD Program Guidelines would not result in any additional expense to VTA. Additional TOD projects would result in significant new revenues for VTA.

Prepared by: Ron Golem
Memo No. 6524

ATTACHMENTS:

- Attach A Transit-Oriented Policy (PDF)
- Attachment B VTA JD Policy (PDF)
- TOD Policy PPT 11.6.2019 (PDF)
1. **Purpose:**

The Transit-Oriented Development Policy, as set forth in Attachment A, outlines how VTA implements its Transit-Oriented Joint Development program in furtherance of its mission.

2. **Scope:**

This policy addresses how VTA will use designated VTA-owned property to create mixed-use and mixed-income equitable Transit-Oriented Development (eTOD) through public-private and public-public partnerships, and build Transit-Oriented Communities (TOC).

3. **Responsibilities:**

The VTA Board of Directors, the General Manager, the Deputy General Manager/CFO, and the Director of Real Estate & Transit-Oriented Development

4. **Policy:**

See Attachment A

5. **Definitions:**

See Attachment A

6. **Summary of Changes:**

The new Transit-Oriented Development (TOD) Policy renames the 2009 Joint Development Policy, removes superseded content, adds new provisions for flexibility in private partner selection, and adds an appeals process. It condenses content to make it more accessible for users, the public, and interested parties. It includes the 2018 TOD Parking Policy. It includes the 2016 Affordable Housing Policy, with added options for development of a broader range of below market-rate housing and potential preference programs for targeted populations.

7. **Approval Information:**

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<tr>
<th>Prepared by</th>
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<td>Jessie O’Malley Solis</td>
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Santa Clara Valley Transportation Authority

**Date Approved:** 

**Original Date:** 03/05/2009  **Revision Date:** 11/04/2019  **Page 1 of 15**
Attachment A: Proposed VTA Transit-Oriented Development (TOD) Policy

November 2019

Purpose

VTA, in its role as the Congestion Management Agency for Santa Clara County, is charged with implementing programs to achieve the goal of a balanced approach to solving transportation problems. VTA’s Enabling Act provides it with the authority to create Transit-Oriented Joint Development projects to increase transit ridership and reduce vehicle trips, through more intensive mixed-use development around transit stations that accommodates growth and facilitates multimodal access. This Transit-Oriented Development Policy outlines how VTA implements its Transit-Oriented Joint Development program in furtherance of its mission.

Vision

VTA seeks to create mixed-use and mixed-income equitable Transit-Oriented Development (eTOD), through public-private and public-public partnerships on VTA-owned sites that will generate revenues, increase ridership, and create Transit-Oriented Communities (TOC). The TOD Policy provides guidance on how VTA will implement equitable TODs and TOCs to achieve a reduction in the impacts from future growth in the County, and the creation of sustainable destinations that enhance existing communities and offer easy access to a range of new choices for employment, housing, recreation, education, culture, and services.

Equity considerations include the potential that the value generated by transit and TOD can increase housing and other costs and accelerate displacement. This can be addressed by anticipating community change, co-creating project needs, and implementing strategies that provide greater social and economic opportunity for all current and future residents. Equitable TOD strategies include providing housing at a range of densities and affordability levels; commercial and retail spaces that support local businesses and living-wage jobs; enhanced mobility choices and first-last mile connections; and community services and other amenities, integrated into safe, walkable neighborhoods.

Goals

- Increase ridership overall and throughout non-commute periods.
- Leverage TOD projects as catalysts to create equitable and complete Transit-Oriented Communities around transit stations, including affordable housing production.
- Generate revenues to sustain transit capital investment and operations.
Approach

VTA will work with local jurisdictions, communities, and stakeholders to advance TOD projects in stages that enable careful and inclusive evaluation of opportunities, strategies, actions, and outcomes. These stages are shown in Figure 1 on the next page:

Figure 1: VTA’s Transit-Oriented Development Process
STAGE 1 – Strategic Planning and Portfolio Analysis

The VTA TOD Portfolio (Appendix A) identifies all real estate assets that are owned, leased or otherwise controlled by VTA and available through leasing, development or other asset management strategies. Construction staging sites and other properties acquired for the benefit of transit capital projects (including TOD) that are no longer needed for project purposes will automatically be added to the TOD Portfolio upon completion of construction.

VTA will enter into public-private partnerships for TOD projects on VTA-owned land pursuant to long-ground leases in order to maximize long-term benefits for VTA. Exceptions to long-term ground leases may include agency to agency sales when the purchasing agency will make a substantial financial investment in the creation of 100% affordable housing developments.

VTA staff will periodically prepare a TOD portfolio-wide evaluation of development potential by product type that includes projections of ridership, job creation, affordable housing, and revenue opportunities. Site evaluation and predevelopment work on TOD Portfolio sites will be prioritized based on the comparative ability of each site to, among other factors;

a. Increase transit ridership and enhance access to other transportation modes;

b. Obtain development entitlements based on market potential that are TOD/TOC-supportive;

c. Meets local and regional affordable and workforce housing goals, and support local plans and policy objectives;

d. Catalyze the evolution of station areas into TOCs;

e. Advance the goals of VTA’s Congestion Management Program, and support regional growth with reduced or minimal increases in Vehicle Miles Traveled (VMT);

f. Incorporate TOD/TOC best practices, including the guidelines of other transit agency and current research, to create high-quality equitable and sustainable development;

g. Generate revenues to support VTA’s mission and station area improvements to enhance the transit rider experience.

This stage will also consider opportunities for VTA to work with the local jurisdiction on value creation/capture mechanisms to fund station-area wide improvements, including complete streets, as well as local and VTA long-term operating and maintenance costs.

STAGE 2 – Station Area Planning and Site-Specific Feasibility Analysis

VTA will seek early consultation with and continued support from local jurisdictions, partner agencies, and the neighborhoods around TOD Portfolio sites. For larger scale sites this may include communities in other locations.
VTA staff will work closely with partner agencies and local neighborhoods to identify shared project visions that are both feasible and provide broad benefits.

a. Seek partnerships with local jurisdictions to allow transit-supportive land uses to advance TOCs;

b. Promote and facilitate information exchange, sharing of expertise, and joint planning with the development community, partner agencies, local jurisdictions, and stakeholder communities;

c. Work with internal interdisciplinary departments to align with VTA’s strategic plan goals and long-term transit operation needs (including transit parking (Appendix B));

d. Use a variety of means to engage local communities early in the consideration of options for site design allowing feedback to shape objectives and requirements for developer solicitations;

e. Seek early and ongoing engagement and collaboration with local jurisdictions and other involved agencies on land uses, development standards and regulatory issues and requirements; and

f. Work with third party experts to analyze and perform economic, design, or other needed analysis.

The above initiatives will inform VTA TOD staff analysis of site opportunities and constraints which will be presented to the Board of Directors to inform its decisions on next steps in the creation of public-private partnerships.

STAGE 3 –Offerings and Selection

Upon completion of the analysis outlined in Stage II, staff will evaluate the most beneficial solicitation methods for developer selection and make a recommendation to the Board of Directors. Options include but are not limited to:

- Request for Information (RFI)
- Request for Qualification (RFQ)
- Request for Proposal (RFP)
- Sole Source (for unique circumstances, and if relevant allowed by FTA)

Following authorization from the Board of Directors, VTA staff will issue competitive site offerings except situations where the Board of Directors has authorized a sole-source transaction. Offerings will specify VTA requirements for the completed project and invite alternative approaches that can meet those requirements and result in superior outcomes. Developers will have the opportunity to ask questions.
Answers will be shared with all interested registered parties. Based on RFQ/RFP requirements, developers will be required to identify how they will create a superior project and meet the following VTA goals:

a. Use of sustainable construction methods that move towards net zero development, and incorporate comprehensive green building operation and maintenance practices;

b. Guarantee affordable and workforce housing units across targeted income levels pursuant to local jurisdiction requirements and VTA’s Affordable Housing Policy (Appendix C);

c. Demonstrate a commitment to equity at all stages in the development process, including but not limited to cultural competency and ability to define shared project goals with the local community;

d. Increase apprentice opportunities with quantified commitments to utilizing local workforce and providing apprenticeship hours; and

e. Provide station area access improvements and enhancements to the transit rider experience.

A review panel will be convened to evaluate submittals. The panel will be made up of planning and development consultant experts, VTA staff from diverse disciplines, and a local community or jurisdiction representative to evaluate solicitation responses. The panel will aim to provide a consensus recommendation to the Board of Directors.

Developers who believe improprieties have occurred during the evaluation or selection process may submit a written protest that specifies the alleged improprieties. VTA will implement a TOD-specific protest procedure that is similar to existing VTA procurement protest procedures. VTA’s Deputy General Manager/Chief Financial Officer will be responsible for the TOD protest procedure and rendering a final decision on all protests.

The Board of Directors will review the solicitation panel report (including any appeal) and determine the action it will authorize, including whether to authorize the General Manager to enter into an Exclusive Negotiation Agreement (ENA), Lease Option Agreement (LOA), Purchase Option Agreement (POA), Ground Lease, Purchase & Sale Agreement or other equivalent document type. The Board of Directors may provide direction for desired outcomes.

STAGE 4 – Project Development and Negotiation

Following execution of an ENA, VTA staff and the selected developer will together work diligently with the local community, jurisdiction, and other stakeholders to refine the proposed project to better meet identified goals and reach agreement on the proposed terms and conditions of a transaction. Staff will utilize development, planning, and other experts to review developer proposals and negotiations, and the terms and conditions of proposed agreements will be reviewed by the VTA General Counsel.
Following tentative agreement on a term sheet for the proposed transaction, staff will present the proposed term sheet to the VTA Board of Directors for review and authorization for the General Manager to enter into binding LOA, Ground Lease, or equivalent. The proposed term sheet will include an assessment of projected increases in ridership from the TOD project and proposed contributions towards creation of a TOC. Executed agreements will include the following:

a. Negotiated final project program and site development plan;

b. Definition and calculation of business terms for ground lease rent (or alternate compensation structure), and escalations;

c. All permit requirements and milestones including required environmental certifications, timing of construction, and applicable policy compliance;

d. Continuing operation and maintenance agreements between the parties; and

e. Documentation of VTA’s continuing control for transit operations and access.

VTA will consider some write-down of land value may be considered to facilitate overall project benefits such as affordable housing development, or greater affordability in mixed-income projects or other desired public benefits.

STAGE 5 – Implementation and Management

VTA will provide ongoing management, quality controls of project construction, long-term asset management to ensure that projects delivered through the TOD Program achieve policy goals such as ridership growth, superior TOC supportive environments, and maximum long-term benefits and revenues. Staff will prepare an annual report that will be presented to the Board of Directors to facilitate review of the TOD Program, including but not limited to discussion on current challenges and opportunities, equity efforts, as well as suggested policy updates to match current best practices for TOD.

VTA staff will implement a construction management program to ensure in-kind station improvements are properly constructed. An Owner’s Representative program will be established to ensure that completed TOD projects fulfill the requirements of agreements. An asset management program will oversee developer compliance with the terms and conditions of agreements, ensure that all funds owed to VTA are collected, and require that all projects are well maintained and a good neighbor to the surrounding community.

Staff will maintain a library on the VTA website to provide public information on the TOD Program that contains all relevant reports, standard form agreements (such as ENAs, DAs, and Ground Leases), and other reference material.
Appendix A

VTA TOD Sites Portfolio Map

Construction staging sites and other properties acquired for the benefit of transit capital projects (including TOD) that are no longer needed for project purposes will automatically be added to the TOD Portfolio upon completion of construction. The current TOD Site Portfolio Map can be found online.
Appendix B

VTA Transit Oriented Development (TOD) Parking Policy

OVERVIEW

The VTA Transit-Oriented Development (TOD) Parking Policy establishes VTA’s approach to maintaining the optimal level of parking availability at its transit stations that supports the creation of new TOD projects on VTA-owned sites and grows transit ridership. VTA is committed to maximizing multimodal access to transit stations, incorporating access improvements (including parking) into TOD projects, and considering current and future station-area wide goals and needs in the evaluation of parking strategies.

Successful Parking Policy will facilitate the creation of new TOD projects on VTA-owned sites at stations, continue to accommodate those who currently drive to stations, increase transit ridership and VTA’s farebox and other revenues.

1. DEFINITION

Joint Development (JD) refers to VTA’s development of Transit-Oriented Development (TOD) on sites it owns pursuant to the Federal Transit Administration’s Joint Development Circular. JD is a transit-agency specific implementation of TOD and thus a specific subset of all TOD projects. TOD refers to compact, walkable, pedestrian-oriented, mixed-use development that is centered around high-quality transit systems and is not dependent on cars to attract residents and businesses.

2. PURPOSE

This TOD Parking Policy seeks to grow ridership through management of VTA’s transit parking assets to ensure that parking is sized and located to optimize ridership, to promote transit access while taking advantage of Transportation Demand Management (TDM) tools that encourage alternatives to the automobile, and to facilitate access for people of all mobility needs.

3. STRATEGIES

A. Parking Needs. Historically, less than half of all parking at VTA stations has been utilized by transit riders, in part because many riders access VTA light rail by modes other than private automobile. Determining how much parking should be retained for transit riders in conjunction with new TOD requires consideration and balance of expanded ridership opportunities resulting from both TOD and TDM measures.
POLICY
Transit-Oriented Development Policy

Full evaluation of TOD, TDM and ridership opportunities allows VTA to maximize ridership growth through utilization of multiple effective means to access stations.

B. Site Specific Analysis. Each individual site will be analyzed through the VTA Parking Model (created by industry expert Nelson Nygard) which reviews ridership gains created by TOD, weighs parking supply and demand, measures potential impacts of removal of parking and provision of paid parking, and calculates farebox and revenue benefits of TOD. The model results in net new ridership and annual revenues data to assist VTA staff in making informed recommendations to the VTA Board for station area parking strategies. The VTA Parking Model establishes optimal site-specific parking recommendations that:

a. Consider the potential increase in ridership and revenue benefits associated with TOD;
b. Compare the projected increase in land value and fare revenue versus the capital and operating costs of future parking alternatives;
c. Quantify the opportunity to accommodate new riders arriving by shuttle, taxi, transportation network company (ride-hailing) services, and other first/last mile solutions; and
d. Measure collective net increases to ridership.

C. Best Practices. A variety of proven and emerging TDM measures can be used in combination to ensure that parking at VTA stations and other VTA-controlled real estate maximizes ridership through TOD and non-auto access, while still providing parking for riders who drive to stations. Staff will coordinate with both Planning and Programing and local planning departments to understand site specific TDM policy context, analysis and/or existing TDM review infrastructure. Prior to development at each VTA-controlled site, the VTA General Manager or designee will review and either approve or direct the VTA Project Manager to modify requirements for application of best practice TDM measures utilized at the site, including but not limited to:

a. Shared-use parking agreements with neighboring uses;
b. Parking districts
c. Paid parking to fund transit operations, including dynamic (time-of-day based) pricing, for transit riders and/or other users;
d. Time limits to promote parking turnover;
e. Real-time, on-site and mobile device updates regarding parking availability;
f. Amenities for bicyclists, pedestrians, and special needs travelers, such as shelters, lockers, and mode-supportive routes and surfacing;
g. Valet parking (for vehicles and bicyclists);
h. Preferential parking for high-occupancy and/or clean air vehicles
i. Transit passes; and/or
j. Car, bike and scooter share programs.
VTA will cooperate with partner agencies, jurisdictions, and local employers in determining the need for, and potentially establishing as appropriate, Transportation Management Associations to implement TDM measures.

D. **Paid Parking.** Paid parking is an important TDM tool that can be utilized to shift parking supply and demand to underutilized parking areas throughout the JD Portfolio. Paid parking will be explored on a site by site basis and brought to the VTA Board to allow for site specific discussion and consideration. Any initial paid parking programs will be done on a pilot basis to allow for needed site-specific adjustments.

E. **Station Area Access.** First and last mile solutions are critical for transit users. Ensuring that riders can conveniently arrive at stations and navigate through them will help limit the need for parking and facilitate site design opportunities for housing and other community-supporting TOD uses and activities. Development proposals on VTA-controlled real estate within ¼-mile of a VTA station will include a station access and wayfinding plan that analyzes station-specific access patterns and shows:

   a. Where riders who arrive by private vehicle will park and the route(s) they will travel from parking to transit boarding areas; and
   b. Where riders arriving by shuttle, paratransit, and ride-hailing services will be dropped off and the route(s) they will travel to transit boarding areas; and
   c. Locations for arrival by bicycles, pedestrian, and special mobility needs travelers, and the route(s) they will travel to transit boarding areas.

Development proposals for all VTA-controlled real estate will include a curb management plan that designates locations and standing time limits for drop-off and pick-up by non-parking shuttles, taxis, paratransit, and ride-hailing and other private vehicles.

F. **Local Regulations.** Municipal parking regulations often need updating to reflect changes in the way that transit riders and TOD communities now use parking compared to times past. Refining local standards can help ensure efficient use of parking that promotes ridership and revenue growth and high-quality, sustainable TOD. VTA will work with local jurisdictions to promote updating of regulations to:

   a. Eliminate minimum parking requirements for TOD (and establishing maximum parking ratios if and as appropriate);
   b. Unbundle parking, such that it can be leased separately from buildings; and
   c. Establish facilities standards for passenger drop-off and pick-up and non-vehicular access for new residential and mixed-use development.
4. IMPLEMENTATION

A. Staff will work to insure individual site-specific analysis occurs in accordance with the Board approved VTA TOD Parking Policy.

B. Individual site evaluation results will be summarized for Board review prior to or concurrent with approval of individual TOD Lease Option Agreement (LOA) or equivalent terms.

C. The General Manager or Designee has the authority to approve best practice VTA TOD Parking Policy implementation adjustments as needed.
Appendix C

TOD Affordable Housing Policy

BACKGROUND

Real property designated for Transit-Oriented Development (TOD) by VTA will be subject to the TOD Affordable Housing Policy. VTA adopted its first Affordable Housing Policy in 2016; this update broadens the existing policy framework to provide for a comprehensive range of affordable housing product types.

1. VTA AFFORDABLE HOUSING PRODUCTION TARGETS THROUGH TRANSIT-ORIENTED DEVELOPMENT

   A. Overall Portfolio Target. VTA has set a portfolio target of 35% affordable housing production (defined as serving affordable households earning more than 120% Area Median Income [AMI] for Santa Clara County), with an overall average of not greater than 80% AMI at full build-out for transit-oriented development residential projects in VTA’s TOD Portfolio.

   B. Individual Project Target. Each Transit-Oriented Development project or station area with residential units will be required to provide an affordable unit program that has a minimum of 20% set-aside units on-site. The affordability level shall be:

   i. affordable to households earning no more than 60% AMI, with at least one-half of the affordable housing units targeted at Extremely Low and Very Low Income Households (households earning 50% AMI or less); or

   ii. in compliance with the affordability levels set in a local city or County inclusionary housing ordinance; or

   iii. at such other affordability level as authorized by the Board of Directors on a case-by-case basis, including projects that target affordable workforce housing for households above 80% AMI and below 120% AMI.

   The Board of Directors will provide direction on which of the three options above are appropriate for individual site offerings prior to public release.

2. STRATEGIES TO INCREASE AFFORDABLE HOUSING IN TRANSIT-ORIENTED DEVELOPMENT PROJECTS

   A. Proposal Scoring Benefit. All VTA Transit-Oriented Development competitive offerings for developer selection will contain competitive selection criteria that provide a scoring benefit to developers who incorporate affordable housing developers into their development team; and include a greater proportion in their development concept and development proposal...
submittals of affordable housing units than the minimum required by this Policy, and/or deeper affordability, and/or more family sized units (3-bedrooms or more).

B. **Partnerships with Local Jurisdictions.** VTA will pursue partnerships with local jurisdictions, regional organizations, and Santa Clara County to leverage their expertise and resources to increase affordable housing production at VTA transit-oriented development sites. This could facilitate access to Low Income Housing Tax Credits, local jurisdiction in-lieu fees or other locally available housing subsidies, applications to the funding programs, and provide for public education on the benefits of affordable housing production to generate local support.

C. **Preference Programs.** VTA will aim to include local preference goals and preferences for essential public employees where possible for affordable housing offerings, consistent with all applicable federal and State laws. VTA will work to develop a VTA employee preference for income-qualifying households with at least one VTA full-time employee. These employee preference goals will be applicable for up to 15% of the affordable units required per this Policy, subject to federal and state laws and regulations as applicable.

3. IMPLEMENTATION ACTIONS FOR THE AFFORDABLE HOUSING POLICY

A. **Identify and Prioritize 100% Affordable Sites.** The General Manager will propose individual TOD offerings with 100% affordable residential units in order to achieve the portfolio-wide goal of 35% affordable housing production.

B. **Support Regional Housing Needs Assessment.** In support of the RHNA process, which encourages affordable housing near transit stations, VTA will formulate a target income mix for its 100% affordable projects to support unmet needs per RHNA categories of affordable housing. In general, in Santa Clara County, the Moderate-Income category (e.g., 80 to 120% AMI), is the least commonly built category of affordable housing, due to lack of funding sources targeting this income category.

C. **Land Value Flexibility.** VTA will seek to maximize value for all land transactions, but in the cases of 100% affordable housing projects, VTA will also consider the effects on value of affordable housing and other community benefits being offered. This may result in a partial adjustment to land value to account for the funding challenges in affordable housing development.

D. **Grant Funding and Other Financial Assistance.** VTA will work to identify grants and other financial assistance that can be made available for individual Transit-Oriented Development sites that include affordable housing.

E. **New Approaches for Affordable Housing Production.** The General Manager is authorized to develop and implement new or flexible approaches for development of affordable housing pursuant to VTA’s affordable housing policy, in order to better advance its goals and
respond to changes in market or other conditions, as well as changes in local cities and County inclusionary housing and affordable housing programs. The General Manager will notify the Administration & Finance Committee whenever this discretionary authority is exercised.

F. **Annual Reporting.** VTA will prepare an annual report identifying its affordable housing production to date as a percent of transit-oriented development residential units and identify affordable housing units currently in pre-development or under construction.
The Santa Clara Valley Transportation Authority (VTA) has an extensive portfolio of real estate assets, many of which are underutilized and/or have potential for transit-oriented development. VTA’s ongoing expansion of its transit system, including Bus Rapid Transit, light-rail, and other modes, also presents opportunities to acquire additional real estate assets to support further Transit-Oriented Development. VTA recognizes the importance of acquiring and developing these real estate assets, as reflected in the agency’s creation and ongoing support of the Joint Development Program (JDP). The JDP has primary organizational responsibility for managing the process by which development of VTA’s real estate assets occurs.

To ensure the success of the JDP, the VTA Board of Directors has mandated this major organizational effort be guided in principle and procedure by the Joint Development Policy (Part I of the JDP Guidance Documents) and the Joint Development Implementation Plan (Part II of the JDP Guidance Documents), as amended by the Board from time to time.

The Joint Development Policy sets forth the fundamental principles that guide the JDP. This document articulates the primary goal of VTA’s JDP as that of providing appropriate stewardship of VTA’s real estate assets through maximization of their respective economic values. Secondary goals of the JDP are to create vibrant community assets in the form of transit-oriented development that includes affordable housing and enhances VTA’s transit operations through improvements in ridership and infrastructure. All of these goals shall be accomplished through a broad-based site-appropriate development process which includes both comprehensive intra-agency coordination and extensive collaboration with external stakeholders both interested in and affected by VTA’s JDP.

The Joint Development Implementation Plan, which comprises Part II of this document, lays out procedures which expand upon the core principles articulated in Part I. Together, these principles and procedures outline an intentioned path for VTA staff to follow to achieve success for the JDP. Starting with priority-setting of VTA’s joint development assets, this path includes procedures for collaborative identification of site-appropriate development concepts, competitive developer selection processes, and industry standard legal instruments for effective public-private partnerships with selected developers. The Joint Development Implementation Plan also specifies VTA processes to ensure intra-agency consultation and guidance, collaboration with affected localities, and an open public participation process.
PART I: JOINT DEVELOPMENT POLICY

I. MISSION STATEMENT

The mission of VTA’s Joint Development Program is to provide appropriate stewardship of VTA’s real estate assets by maximizing their respective economic values through site-appropriate development that also increases transit ridership, creates vibrant community assets and enhances the long-term life of VTA’s facilities.

II. GOALS

The goals of the Joint Development Program are set forth below, in priority order. These goals and their respective priorities shall inform the entire arc of development pursued under the Joint Development Program. In instances where a conflict appears either among these goals or between these goals and the interests of stakeholders, these goals and their respective priorities shall govern VTA’s actions.

A. Revenue. To provide a long-term, stable source of revenue for VTA by obtaining fair market value on ground lease of its real property assets through an open and competitive development process.

B. Transit-Oriented Development. To carry out transit-oriented development, where appropriate, that provides the highest and best use of each site, conforms to the regulations of the affected jurisdiction in which the site is located, provides affordable housing, and achieves the goals set forth in VTA’s Community Design and Transportation Manual for high quality design and community benefits. This includes acquisition of new sites and use of construction staging areas for Joint Development, pursuant to applicable funding and regulatory guidance, in order to create additional projects.

C. Transit Operations. To create development that results in ridership growth on VTA’s multi-modal transit system and/or enhances VTA’s operational infrastructure. This includes evaluation of all new transit projects, including their construction staging areas, for the potential to create additional sites for Joint Development, consistent with applicable funding and regulatory guidance.

III. OBJECTIVES

The aforementioned Goals shall be met through implementation of the following Objectives, as each may be further articulated in Part II, the Joint Development Implementation Plan.

A. REVENUE

1. Return on Investment. For each Joint Development asset, VTA shall achieve a rate of return over the life of the asset that is competitive in the market and reflects fair market value. VTA will maximize long-term returns by entering into Joint Development projects through long-term
ground leases with significant participation to share in project upside, except as otherwise approved by the VTA Board of Directors. VTA will develop portfolio return metrics to evaluate the long-term benefits from the Joint Development program, including increases in ridership.

2. Participation in Asset Value Increase. For each Joint Development asset involving a long-term lease, VTA shall seek financial participation in the increase in the asset’s value over time in the form of market competitive contractual mechanisms.

3. Use of Proceeds. Proceeds from the Joint Development Program shall be set aside in a special fund within the agency’s fiscal organization and shall be appropriated for use from this fund for the continued operation and development of the agency, as determined by the VTA Board of Directors from time to time through formal actions. These uses include support for increased land-use density to support Joint Development and Transit-Oriented Development around station areas and along transit corridors, as well as other one-time uses.

The General Manager is authorized to negotiate and execute agreements and expend funds to support implementation of the Joint Development Policy, provided such agreements and expenditures are consistent with the provisions of Administrative Code Sections 5-3 and 9-2.

B. TRANSIT-ORIENTED DEVELOPMENT

1. High Density Development. Residential development projects pursued under the Joint Development Program shall strive to provide higher density consistent with TOD best practices at VTA’s transit stations and the downtown or core areas of the local jurisdictions in which the projects are situated.

2. Land Use Policies. Development projects pursued under the Joint Development Program shall comply with all the review and approval policies and procedures of the local jurisdictions in which the respective projects are sited. The Joint Development Program will work with local jurisdictions in support of higher-density land uses consistent with TOD best practices.

3. Stakeholder Interests. Development projects pursued under the Joint Development Program shall address stakeholder interests to the extent consistent with the Joint Development Policy. This includes the creation of community workforce opportunities.

4. Urban Design Standards. Development projects pursued under the Joint Development Program shall strive to incorporate the urban design concepts, principles and guidance set forth in VTA’s Community Design and Transportation Program, the urban design standards of the localities.
with jurisdiction over them, and the “best practices” identified by industry leaders in transit-oriented development.

5. **Site Circulation.** Development projects pursued under the Joint Development Program shall incorporate efficient and safe vehicular, bicycle and pedestrian circulation and promote convenient, accessible and safe connections to transit service.

6. **Project Parking.** Each development project shall provide parking commensurate with demand forecasts and smart growth principles resulting from site evaluation documents. These documents may include environmental impact reports, on-site and off-site parking analyses, shuttle and bus linkages, and non-physical solutions to parking that are consistent with local jurisdiction requirements.

C. **TRANSIT OPERATIONS**

1. **Transit and Ridership Improvements.** Development projects pursued under the Joint Development Program shall strive to include physical improvements and/or transit programs that encourage utilization of multi-modal transit services and increase long-term ridership.

2. **VTA Operational Requirements.** The Joint Development Program shall be implemented in a manner that is mindful of VTA’s necessity to manage costs, maximize revenues and balance system expansion with the maintenance of existing service.

3. **Replacement Parking.** For any development project pursued at a VTA park-and-ride, a site-by-site analysis shall be undertaken to determine the appropriate level at which existing parking should be replaced, with full consideration of the relative growth in future ridership that can result from dense Joint Development versus provision of future parking spaces.

IV. **JOINT DEVELOPMENT REAL ESTATE ASSETS**

The identification of appropriate real estate assets for Joint Development is a prerequisite to the successful fulfillment of the Joint Development Program. As such, the Joint Development Program shall generate and maintain management information tools that catalog the agency’s extensive portfolio of real estate assets and identify those best suited for Joint Development within specified timeframes.

A. **REAL ESTATE ASSET INVENTORY**

VTA staff shall compile and maintain a comprehensive Real Estate Inventory (RE Inventory) which identifies all real estate assets that are owned, leased or otherwise controlled by VTA and available for revenue generation through leasing, development or other asset disposition. This RE Inventory shall include, for each asset, all reasonably ascertainable data on its respective location, size,
physical features, current uses, planning constraints, and environmental
ccharacteristics. The RE Inventory shall be reviewed regularly by VTA staff and
updated as significant information is made available with respect to any identified
assets or as new assets are acquired by VTA.

B. JOINT DEVELOPMENT PORTFOLIO

From the RE Inventory, VTA staff shall identify a subset of assets which have
reasonable potential for Joint Development over time and shall categorize them
into a Joint Development Portfolio. The assets in the Joint Development Portfolio
will be reviewed and re-categorized as the RE Inventory is updated. Further
guidance on the Joint Development Portfolio shall be set forth in the Joint
Development Implementation Plan.

C. JOINT DEVELOPMENT PRIORITY SCHEDULE

From time to time but not less than every five years, VTA staff shall propose to
the VTA Board of Directors a specific set of assets from the Joint Development
Portfolio that have been evaluated through economic and other analyses and
determined to hold the greatest potential to become an active development project
for the VTA’s Joint Development Program in the foreseeable future. The
intention of the Priority Schedule is to target VTA’s limited resources toward
those assets which have greater certainty and capacity to generate revenue and
meet the other goals set forth in this Joint Development Policy. The Joint
Development Priority Schedule shall be developed through a participatory process
with the local jurisdictions having land use control and subsequently proposed to
the VTA Board of Directors for formal adoption and fiscal appropriation
authority. VTA staff may initiate formal contractual negotiations for Joint
Development assets not on the Priority Schedule only upon approval of an
amendment to the Priority Schedule by the Board of Directors. Further guidance
on the Joint Development Portfolio shall be set forth in the Joint Development
Implementation Plan.

V. PARTICIPATORY PROCESS

The Joint Development Program shall carry out its activities so as to advance relationship-
building with the wider communities affected by VTA’s operations. The Joint Development
Implementation Plan provides further information on the various means through which the Joint
Development Program shall solicit input from local jurisdictions and other stakeholders.

A. OUTREACH TO LOCAL JURISDICTIONS

VTA shall engage fully and collaboratively with the local jurisdictions in which
VTA’s Joint Development assets are located and will solicit input from the
appropriate staff and decision makers of these jurisdictions with respect to land
uses, development parameters, and other regulatory issues while balancing the
necessity to meet the core goals associated with the Joint Development Program
as outlined in this Joint Development Policy.
B. COLLABORATION

The Joint Development Program shall employ all effective means to facilitate information-sharing, tap expertise and plan collaboratively with local jurisdictions and other agencies working to meet regional transit goals.

C. STAKEHOLDER INPUT

VTA shall endeavor to implement a participatory process for every Joint Development project so as to obtain maximum stakeholder input. To this end, VTA shall not, in most instances, propose to develop a Joint Development asset listed in the Joint Development Priority Schedule until the agency has gone thru a specific development strategy for that asset which includes adequate consultation with the community and other stakeholders. Further guidance on the participatory process shall be set forth in the Joint Development Implementation Plan.

VI. ORGANIZATIONAL COMMITMENT

Cooperation and teamwork throughout the VTA organizational structure are essential to the success of the Joint Development Program. VTA is committed to providing the requisite technical, legal and financial support necessary for performing the complex task of developing urban real estate assets under the Joint Development Program.

A. MANAGEMENT ADVISORY GROUP

Management of the various divisions within VTA shall provide regular input to the Joint Development Program on general activities as well as specific projects through a newly created Joint Development Management Advisory Group, led by the Joint Development Program.

B. INTRA-AGENCY SUPPORT

VTA’s organizational functions shall provide technical information and administrative support to the Joint Development Program as needed, particularly with respect to the compilation and ongoing maintenance of the asset management tools outlined in Section IV of this Joint Development Policy.

C. PROJECT TEAM

Each significant Joint Development asset requiring VTA oversight and coordination will be assigned a Project Team assembled from the various technical and support units of the agency as required, under the coordination of a Joint Development Project Manager. The intent of the Project Team is to avoid unintended consequences to VTA’s various functional divisions, conserve scarce agency funds and staff resources, and tap into the experience and expertise of the agency’s staff so as to generate the best real estate solutions for each such asset.

D. STAFF AND FUNDING RESOURCES
VTA recognizes that the development of complex real estate assets as contemplated in the Joint Development Program requires an initial investment of staff and financial resources and is committed to allocating such resources.

PART II: JOINT DEVELOPMENT GUIDANCE DOCUMENTS IMPLEMENTATION PLAN

I. INTRODUCTION

The Joint Development Implementation Plan comprises Part II of the Joint Development Guidance Documents. Expanding upon the core principles outlined in Part I, the Joint Development Policy, this document summarizes the sequence of steps that will take place to successfully carry out the Joint Development Program.

As used in the Joint Development Guidance Documents, the term “Joint Development” shall mean the development of a transit agency’s real estate assets through a public private partnership. While real estate development is not a core function of a transit agency such as VTA, it is an activity that is commonly practiced among public transit providers across the nation empowered with such authority. VTA’s statutory authority for the Joint Development Program exists in various legislative actions. In fact, VTA is one of only three transit operators in California that has the statutory authority to acquire land entirely for the purpose of transit-oriented development. This state support for VTA’s Joint Development is consistent with federal guidance, in that the Federal Transit Administration encourages public transit agencies to pursue incidental uses of their real property that raise additional revenues for the transit system or, at a reasonable cost, enhance system ridership.

As noted in the Joint Development Policy, the approach outlined in this Implementation Plan is intended to be consistent with the other policies and goals set herein; to be clear and uniform for all projects; to involve close communication and collaboration with affected jurisdictions; to follow a competitive developer selection process; to include “best practices” in the public-private contracting arena; and to be fair and transparent to developers, jurisdictions, real estate markets and the public.

The Implementation Plan covers the following topics:

A. REAL ESTATE INVENTORY (RE Inventory). A comprehensive summary of basic data on all VTA-owned or -leased sites, or those otherwise controlled by

1. Assembly Bill (AB) No. 1937, Dutra (enacted February 2002) allows a transit operator to enter into agreements with a public agency, public utility or person or entity for the purpose of joint development. See also Santa Clara Valley Transportation Authority Act (California Public Utilities Code 100000 et. seq)
2. AB No. 670, Papan (enacted February 1999) allows VTA, the San Mateo County Transit District and the Bay Area Rapid Transit District to acquire land entirely for a project that is a commercial, residential or mixed use development that is undertaken in connection with existing, planned or proposed transit facilities and is located ¼ mile or less from the external boundaries of that facility.”
VTA, and which are available for revenue generation through leasing, development or other asset disposition.

B. JOINT DEVELOPMENT PORTFOLIO (Portfolio). A subset of the RE Inventory and the established list of those VTA’s assets which have joint development potential.

C. JOINT DEVELOPMENT PRIORITY SCHEDULE (Priority Schedule). The official VTA document which sets forth a limited number of high-priority sites for development and which the Board formally adopts.

D. DEVELOPMENT STRATEGY AND SITE DEVELOPMENT CONCEPT. To be generated for each site as it moves forward in the development process in a collaborative process with the affected jurisdiction, the public and others as appropriate.

E. DEVELOPER SELECTION PROCESS. The process by which the VTA will solicit interest in developing specific sites, whether via Request for Qualifications, or Request for Proposal.

F. JOINT DEVELOPMENT AGREEMENTS. The legal agreements between VTA and the selected developer for any given project.

G. POST-CONSTRUCTION REVIEW. A staff review of the effectiveness of the process and procedures established for VTA Joint Development Projects.

These are discussed in turn, as they represent a sequence of activities by VTA staff and the Board.

II. REAL ESTATE INVENTORY

VTA is the fee title holder of an extensive portfolio of real estate assets along key transit corridors in Santa Clara County. To enable their proper management and utilization, these assets will be catalogued in a comprehensive inventory referred to as the Real Estate Inventory (RE Inventory) in accordance with the procedures outlined below.

A. COMPILATION OF RE INVENTORY

The RE Inventory will consist of all real property assets meeting the following criteria:

1) is owned, leased or otherwise controlled by VTA; and

2) offers potential for revenue generation through leasing, joint development, licensing or other asset disposition.

In addition to cataloguing each asset by the appropriate markers (e.g., location, type of property, parcel numbers, etc.), the RE Inventory will include a comprehensive summary of basic data pertinent to each asset. This data generally
will consist of information that can be easily collected from existing external and internal sources (e.g., VTA files, title records, local land use regulations, internet tools, etc.). Examples of pertinent data for each asset include, without limitation, the following:

1) each location and ownership;
2) demographic profile;
3) distance to public transit stations and/or stops;
4) summary statement of land use setting;
5) land use regulations that apply;
6) alternative transportation modes located within ½ mile of the sites;
7) the status of the site’s availability for development; and
8) any known environmental constraints.

For ease of use and maximum access across the organization, VTA staff will make every effort possible to compile the RE Inventory using the most appropriate technological tools then available (e.g. GIS, SAP, PATH, and Excel).

The most current RE Inventory shall be incorporated by reference into this Implementation Plan and included as Attachment 1.

B. CATEGORIZATION OF ASSETS

In addition to the above-mentioned compilation, the RE Inventory will segregate the assets into strategic categories based upon preliminary assessments of their respective real estate potentials and/or anticipated uses by VTA staff. The goal of this categorization is to enable VTA staff to formulate site-appropriate real estate management plans for each of the catalogued assets, including without limitation, joint development in accordance with the Joint Development Guidance Documents, interim leasing and licensing pursuant to VTA’s leasing policies and procedures, and transfer or other disposition as determined by VTA from time to time.

VTA Real Estate management will determine these categories and may rename, expand or altogether delete them as necessary from time to time. The initial categories determined appropriate for the RE Inventory include the following:

1. Joint Development. This category consists of those assets with potential for Joint Development, either in the near or long term. Special import will be given to those assets with strong transit-oriented development viability and/or long-term revenue potential through ground leasing or a joint venture development structure. Assets in this category may also include those which require value-added investment to be made to them prior to
development. Value-added investment includes any pre-development or disposition work performed for an asset, such as site remediation or improvements, site assembly, facilities relocation, entitlement work and pre-design. A cost benefit analysis should be done prior to investment is made in any value added work for an asset. The assets in this category will comprise the Joint Development Portfolio and are further discussed in Section III below.

2. **Interim Leasing.** This category consists of those assets that have limited near term Joint Development potential, are currently available and/or significantly underutilized, do not warrant permanent disposition due to anticipated favorable, long-term market shifts, yet offer interim revenue potential through leasing, licensing or other asset management. These assets should be managed through VTA’s leasing policies and procedures in a manner that is industry competitive yet compatible with the organization’s core purposes.

3. **Permanent Disposition.** This category is reserved for those assets that offer limited Joint Development potential, either because of their small sizes (which limit the economic viability of a public private partnership), the complexity of their local land use regulatory environments, difficult site attributes/constraints, or other factors affecting their development feasibility. These properties may be either disposed of for fair market value pursuant to VTA’s disposition policies and procedures or used for exchange of fair market value property with private or public entities as determined by the VTA through formal actions. Properties in this category should not be considered for joint development once active disposition strategies have been implemented without a thorough analysis at the staff level of such reconsideration.

4. **Land Banking.** Assets in this category include those which do not readily fall into one of the above-mentioned categories due to any number of factors, including the insufficiency of information necessary to ascertain the asset’s potential, contingency upon the occurrence of future events, planning efforts and/or capital projects, and anticipated favorable changes in the long term market dynamics relevant to the asset. Any asset in the Land Banking category should be regularly assessed for its suitability for interim leasing and deployed on such a strategic plan as appropriate.

The attached Exhibit A illustrates the categorization of assets as described above.

The above categorization of assets is only a preliminary assessment of the respective assets’ potential and not intended to be a final determination of their disposition. As such, the RE Inventory may place the same asset into multiple categories if several disposition strategies appear viable, key data to narrow the categorization is not readily available, or further refinement is contingent upon the occurrence of future events, planning efforts or capital projects.
C. **UPDATES TO RE INVENTORY**

The RE Inventory will be periodically reviewed and updated as necessary to reflect new acquisitions and other asset dispositions so as to ensure its accuracy and completeness to the maximum extent possible. The categorization of assets, in a manner consistent with the procedures outlined above, may be modified at staff level from time to time, as new information is learned about particular assets and/or to address VTA’s changing real estate needs. However, the creation or deletion of any category of asset altogether (from those categories noted in Section II.B. above) must be done through a VTA Board-approved amendment of this Implementation Plan.

Of critical import will be synchronization of the RE Inventory with VTA’s planned system extensions and upgrades as well as key regulations governing any given site. New land use regulations and plans -- especially those affecting housing density and location and those affecting transit funding – should be incorporated in the RE Inventory, including updated Regional Plans from the Metropolitan Transportation Commission and the Association of Bay Area Governments (which provides population projections that govern the “Housing Elements” of each jurisdiction’s General Plan or Special Area Plan).

III. **JOINT DEVELOPMENT PORTFOLIO**

Undertaking a robust joint development program is a highly complex undertaking and requires a systematic plan of action. The starting point for such a plan of action is the category of Joint Development assets catalogued in the RE Inventory. To truly understand their Joint Development potential, these assets must be analyzed further through an economic gauge. One industry standard gauge is a residual land value analysis to determine the market-based value of these assets for near-term development. Other economic methodologies may be used as appropriate.

A. **INITIAL ECONOMIC ANALYSES**

First-level financial evaluations for the assets in the Joint Development Category will be carried out to estimate what each given site would yield to VTA, financially, as expressed in relative terms. This task requires each site to be evaluated broadly for its general characteristics of development (such as height, density, parking requirements, etc.) and then by alternative development uses (residential housing, office, retail, and/or mixed-use). Parking requirements per type of development are also estimated.

From these typical prototypes, an estimate is generated on the potential cost at which the site could be developed for a given use at a given density. Overall land value is thus estimated. In addition, using recently published secondary data sources of the prices at which similar projects have sold, or rented, revenues are projected for each type of use at a given site. Comparing the costs with the revenues, a very broad-scale analysis of the residential land value is obtained.
The result is not an actual figure, but a relative range of costs and a relative range of potential financial return to VTA for each development alternative.

For example, Site A may be evaluated for its potential to support (a) 20 units of housing at low-density with surface parking; compared to (b) 40 units of medium-density housing with a garage; or (c) 100 units of housing with underground parking. Construction costs will vary depending on the scenario. Prices will also vary on what a developer could sell housing units for, or in the case of rental housing, what rental rates could be charged. Through calculations that determine the resulting residual land value of various options, the VTA can estimate relative returns to the agency of different options. (NOTE: These estimates may differ from those that would result strictly from a land appraisal, as the theoretical scenarios that are evaluated consider such factors as the potential to alter zoning, change in housing density permitted, and other factors.)

As the evaluation process proceeds, VTA seeks early and continuous consultation and input from local regulatory agencies, the community and other stakeholders as identified. The iterations of these communications inform the final consideration of a site’s potential.

Any newly acquired assets included in the RE Inventory Joint Development category are to be evaluated through similar economic methodology. Their respective residual land values shall be compared to the values obtained in the last analysis conducted for the previously categorized assets so as to inform the path on which the newly acquired assets should proceed in accordance with the steps outlined below.

B. CATALOGUING BY DEVELOPMENT PROTOTYPE

The residual land values and other economic analysis, if any, calculated above shall be used to refine the assets into a Joint Development Portfolio. This portfolio shall consist of only those assets that have identified to have true economic potential for joint development, either near or long term. In addition to the site specific data included in the RE Inventory, the Joint Development Portfolio shall include the development prototypes likely to be suitable for the respective assets and shall catalog the assets according to these prototypes.

Similar to the RE Inventory, VTA staff will make every effort possible to compile and maintain the Joint Development Portfolio using the most appropriate technological tools then available (e.g., GIS, SAP, PATH, Excel).

The most current Joint Development Portfolio shall be incorporated by reference into this Implementation Plan and included as Attachment 2.

C. UPDATES TO JOINT DEVELOPMENT PORTFOLIO

The Joint Development Portfolio will be periodically reviewed and updated as necessary, particularly when the RE Inventory is updated so as to ensure its
IV. THE JOINT DEVELOPMENT PRIORITY SCHEDULE

From the Joint Development Portfolio, VTA staff will, from time to time, but not less than every five years, propose to the VTA Board a specific set of VTA real estate assets that will become the priority joint development sites for the organization, either because these sites warrant certain value-added investment to be made by VTA in the near term and/or these sites have been determined to hold the greatest potential for joint development project in the foreseeable future. The priority assets, as approved by the VTA Board, will comprise the Joint Development Priority Schedule (Priority Schedule).

A. GOALS OF PRIORITY SCHEDULE

The primary intention of the Priority Schedule is to target VTA’s limited resources toward those assets which have greater certainty and capacity to generate revenue as well as meet the other goals of the Joint Development Policy. VTA’s real estate holdings are extensive and a focused plan of action for the implementation of VTA’s Joint Development Program is necessary to reach success. Moreover, many of VTA’s real estate assets have complex operational and site constraints and involve multiple stakeholders and cannot all be developed at the same time or without concerted efforts at the organizational level.

In addition to identifying those assets with the most near term development potential, the Priority Schedule may also be used to ascertain those select sites which necessitate near term value add investment to be made to them by VTA. Not all sites within the Joint Development Portfolio will be deemed ripe for development immediately. Specific site issues, pre-development requirements, entitlement reviews and local planning agency plans will affect the timing of VTA’s Joint Development efforts. The need for infrastructure replacement, ascertaining the extent of environmental contamination, moving or replacing VTA transit-related functions, terminating or buying-out existing leaseholds, clarifying title disputes to land parcels, completing a community’s General Plan update are all examples of pre-development constraints that would delay a site’s development.

While these constraints would prevent the immediate development of certain sites, they may nonetheless warrant VTA to focus the organization’s near term efforts on the constrained sites. This is due to any number of factors, such as that the constraints are related to VTA’s other time-sensitive efforts or needs; the sites themselves offer tremendous Joint Development potential once the constraints are properly addressed; and there exists strong external interest for a particular site either because of market-driven forces or local jurisdictional objectives. These
constraints, if sufficiently weighty in comparison to other factors, may justify the relevant sites to be identified as near term priorities on the Priority Schedule.

Given the above, the expectation is that the Priority Schedule will be a formal compilation of the known technical and planning issues for each site identified in the Joint Development Portfolio. The document will identify as near-term “priority sites” those assets that either offer near term high-economic value or are in need of focused value-add investment efforts. In addition to these “priority sites,” the Priority Schedule will indicate the relative timeliness for Joint Development (or value-add investment) of the remainder of the assets itemized in the Joint Development Portfolio.

B. PRIORITIZATION CRITERIA

To create the Priority Schedule, the VTA Joint Development Program staff and consultants will employ professional evaluation of the Joint Development Portfolio assets using criteria that include the sites’ physical attributes and constraints; the potential economic values resulting from anticipated joint development; the potential impacts on other VTA projects or activities Joint Development of the respective assets will have; any environmental and other significant constraints pertaining to each site; and the local land use regulatory environment relevant to each asset. The weighting given to the respective prioritization criteria will be consistent with the Joint Development Policy.

Each asset will be assessed by the following prioritization criteria to address site-specific issues:

1. **Parcel and/or Asset Size and Improvements.** Is the site of a suitable size for a public private partnership structure? Does it contain improvements to be reused, sold or replaced? Are there other improvements on site?

2. **Transit Access/Impacts.** Does the site have access to existing light-rail, Caltrain, BART, VTA, high speed rail, or other transit services or is it scheduled to have access in a planned extension? Will Joint Development of the site impact VTA’s transit operations or facilities, either favorably or negatively?

3. **Site Availability.** Is the site compatible with VTA plans and operations and available for redevelopment or does VTA have commitments for the site that constrain its use?

4. **Location Efficiency.** Is the site located in close proximity to job-generating centers and to commercial services that serve commuters and residents? Will joint development of the site encourage/increase transit use?
5. **Developer/Market Interest.** Has developer interest been expressed in the site or similar development proximate to the site? Is there a market for the type of product anticipated on the site through Joint Development?

6. **Land Use Policy.** Is the site located in a jurisdiction with land use designations conducive to the anticipated development or would a zoning and/or General Plan Amendment be required?

7. **Municipal Responsiveness.** What is the initial response by the local jurisdiction’s staff to VTA outreach regarding Joint Development on the site? What is the existing or anticipated response by local residents and other stakeholders to joint development on the site?

8. **Environmental Constraints.** Is the site located in an area with known soils contamination, in a floodplain, or along a riparian corridor? What level of review and impact mitigation would be required for the anticipated development prototypes under the California Environmental Quality Act or the National Environmental Protection Act?

9. **Revenue.** Is Joint Development likely to generate positive cash flow, preferably in the form of a long-term revenue stream, to VTA? Is a significant upfront investment required by VTA to generate the anticipated revenue?

10. **Other Criteria.** As discussed above, constrained sites may also become near term priorities for VTA due to any number of factors, including other VTA time-sensitive efforts or needs, market forces and local jurisdictional preferences. These factors will be considered in the prioritization of the assets as appropriate.

C. **STAKEHOLDER REVIEWS**

To enable an informed application of the prioritization criteria for the various assets being considered, VTA Joint Development staff will solicit stakeholder input through an iterative process of site evaluation and response by the following groups and agencies:

1. **Intra-Agency.** Joint Development staff will review sites with appropriate VTA departments with the purpose of identifying physical planning issues, timing, costs associated with redevelopment of a site currently in use for a VTA purpose and related organizational concerns.

2. **Local Jurisdictions.** Joint Development staff will review the sites with officials of the relevant jurisdictions in order to identify local planning agency goals and objectives regarding the specific sites and to identify other key constraints and opportunities regarding the implementation of a Joint Development effort in that jurisdiction.
3. **Regional Bodies.** As appropriate, the Joint Development staff will inform, seek input from and collaborate with regional organizations such as the Metropolitan Transportation Commission, the Association of Bay Area Governments, and the Silicon Valley Leadership Group regarding VTA’s Joint Development program generally and Joint Development priorities specifically.

4. **General Public.** The Joint Development staff will acquaint the general public with VTA’s Joint Development program and solicit input from the public on VTA’s Joint Development priorities, as deemed appropriate by staff.

5. **VTA Management.** The VTA Joint Development staff will seek early and regular input from relevant management levels, including the General Manager, across the organization on the Priority Schedule as it is being formulated and finalized for Board approval.

6. **VTA Board Committees.** The final draft Priority Schedule will be presented to the appropriate advisory and standing committees of VTA’s Board for consideration and approval pursuant to VTA’s established Board adoption policies and procedures.

D. **FORMAL VTA BOARD ADOPTION**

The VTA Joint Development Program will seek VTA Board approval for the Priority Schedule. The staff report for the proposed Board agenda item will provide all requisite information necessary to make an informed decision regarding the various assets under consideration. Such information will include, at a minimum, an overview of the physical attributes of the respective assets; a summary of the findings of the various technical, planning and economic analyses conducted; intra-agency feedback on the proposed Priority Schedule; input received from the various localities and the general public during the stakeholder review process; and the deciding factors for the staff’s recommendations.

Once approved by the VTA Board, the Priority Schedule will serve as the framework for the Joint Development Program’s ongoing efforts until it is amended consistent with the procedures outlined below. Specifically, the priority sites identified on the approved Priority Schedule will be the primary focus of VTA efforts, including all significant expenditures made for Joint Development activities. Nonetheless, because of the dynamic nature of real estate development and to ensure that all opportunities are considered as presented, the procedures outlined in this Implementation Plan should not be deemed a prohibition for the VTA Joint Development Program to engage in routine development activities regarding the overall Joint Development Portfolio, such as conducting preliminary analysis, responding to questions from or engaging in general discussions with external parties, or conducting basic due diligence regarding Joint Development opportunities for assets other than the approved priority sites. If after such routine development activities, the VTA Joint Development Program determines that any
given asset should become a “priority site” on the Priority Schedule, it should seek a formal amendment to the Priority Schedule pursuant to the procedures outlined below.

The most current Priority Schedule shall be incorporated by reference into this Implementation Plan and included as Attachment 3.

E. AMENDMENT PROCESS

The Priority Schedule is intended to be a relatively stable document that will be renewed from time to time, but not less often than every five years. However, land development is subject to a great many unforeseen circumstances that can affect a given site’s priority in the Priority Schedule. Thus, the Joint Development staff may propose a formal amendment of the Priority Schedule at any time for any reason, including: at the conclusion of site build-out, if significant new information about a site is uncovered; if an opportunity for development of a site not on the Priority Schedule appears; dramatic market changes affecting the site’s near term viability; or potential impacts or interests from other VTA projects or external parties. The amendment of the Priority Schedule would only occur if the Joint Development Program has gone through the process noted above to examine a site, analyzed it against the listed prioritization criteria, and solicited the input of key stakeholders through the outreach process noted above.

V. SITE-SPECIFIC DEVELOPMENT STRATEGIES

The next step for each of the priority sites identified in the approved Priority Schedule is either to implement the recommended value-add strategies or to enter into a development path, as appropriate. In the case of the former sites, the value-add strategies will be implemented as envisioned in the Priority Schedule in a manner deemed appropriate by the Joint Development Program and General Manager and consistent with the Joint Development Guidance Documents.

In the case of the priority sites embarking upon a development path, VTA’s Joint Development Program will follow the procedures outlined below to ensure that a consensus-driven, participatory process is employed.

A. FORMULATION OF DEVELOPMENT CONCEPT

For each relevant priority site, VTA’s Joint Development Program will define, at a conceptual level, a viable development prototype consistent with the procedures outlined below. The viability of a development prototype will be ascertained from both a market perspective through early developer outreach as well as from an entitlement perspective through a collaborative process involving the affected land use jurisdictions and other key stakeholders. The intention is to arrive at a development prototype that has a mix of uses, desired density, height and bulk requirements, general aesthetic and design elements, and site-specific improvements most likely to be supported by both the affected community and the market. The collection of proposed features for the site that results from this early consensus-building process is referred to as the “Development Concept.”
This early consensus-building process will include the following activities for most sites (see Exhibit B for a schematic representation of the sequence discussed):

1. **Developer Response.** The Joint Development Program will hold developer conferences or similar efforts in order to obtain responses as to the market-readiness of various kinds of uses proposed for the site and to identify potential constraints and opportunities reflected by this market-oriented group.

2. **Local Jurisdiction/Stakeholder Reviews.** The Joint Development Program will carry out extensive consultations with the officials of the affected local jurisdictions as well as with key stakeholders identified by the local officials to help define the parameters of the Development Concept and the likely land use regulatory process for such a project.

3. **Public Outreach.** The Joint Development Program will hold workshops and other kinds of community outreach consistent with the plans and procedures of the jurisdiction(s) involved to obtain early community response to the site uses and concepts being considered.

4. **Intra-Agency Consultations.** The Joint Development Program will create an internal, multi-departmental VTA “Project Team,” as appropriate; to examine the iterative development concept as it is being formulated.

5. **Regional Bodies.** As appropriate, the Joint Development staff will meet with regional organizations such as the Metropolitan Transportation Commission, the Association of Bay Area Governments, and the Silicon Valley Leadership Group as the Development Concept is defined to identify grant funding or other economic incentives for such development.

6. **VTA Board Committee Reviews.** The Joint Development Program will present any final draft Development Concept to the appropriate advisory and standing committees of VTA’s Board for consideration and approval pursuant to VTA’s established policies and procedures for Board adoption.

**B. VTA BOARD APPROVAL**

The VTA Joint Development Program will seek VTA Board approval for the final Development Concept formulated for a given site prior to soliciting developer proposals for the development opportunity. The staff report for the proposed Board agenda item will describe the key elements of the Development Concept, the various steps taken to solicit input and build early consensus on the proposed concept, and the next steps. These next steps, in most cases, will include competitive solicitation of developer proposals and entering into contractual agreements with the selected developer(s), consistent with VTA’s policies and the procedures outlined below. If staff recommends VTA engage in a competitive solicitation process through the issuance of a Request for Proposals (RFP), the
Board would approve the substantive terms of such a competitive solicitation at the same time it approves the Development Concept.

However, where the consultative process does not result in a clearly defined Development Concept for a given site, staff’s recommendation may be that VTA initiate a Request for Qualifications (RFQ) process to generate new ideas for the site pursuant to the RFQ procedures outlined below. In this case, staff will recommend the substantive terms of such an RFQ for the Board to approve.

If the participatory process identifies significant constraints on moving forward with any Development Concept for a priority site, the Joint Development Program should present such information to the Board and recommend either amending the Priority Schedule to recharacterize the priority of the site or a strategy for resolving the identified constraints prior to pursuing any further development activities on the site.

Once approved by the VTA Board, the Development Concept will form the basis for the subsequent joint development actions on the site, as described in more detail below.

VI. TOD PARKING POLICY

A. VISION

The VTA Transit-Oriented Development (TOD) Parking Policy establishes VTA’s approach to maintaining the optimal level of parking availability at its transit stations that supports the creation of new Joint Development (JD) projects on VTA-owned sites and grows transit ridership. VTA is committed to maximizing multimodal access to transit stations, incorporating access improvements (including parking) into JD projects, and considering current and future station-area wide goals and needs in the evaluation of parking strategies.

A successful Parking Policy will facilitate the creation of new TOD projects on VTA-owned sites at stations, continue to accommodate those who currently drive to stations, increase transit ridership and VTA’s farebox and other revenues.

B. DEFINITION

Joint Development (JD) refers to VTA’s development of Transit-Oriented Development (TOD) on sites it owns pursuant to the Federal Transit Administration’s Joint Development Circular. JD is a transit-agency specific implementation of TOD and thus a specific subset of all TOD projects. TOD refers to compact, walkable, pedestrian-oriented, mixed-use development that is centered around high-quality transit systems and is not dependent on cars to attract residents and businesses.

C. PURPOSE
This TOD Parking Policy seeks to grow ridership through management of VTA’s transit parking assets to ensure that parking is sized and located to optimize ridership, to promote transit access while taking advantage of Transportation Demand Management (TDM) tools that encourage alternatives to the automobile, and to facilitate access for people of all mobility needs.

D. STRATEGIES

1. Parking Needs. Historically, less than half of all parking at VTA stations has been utilized by transit riders, in part because many riders access VTA light rail by modes other than private automobile. Determining how much parking should be retained for transit riders in conjunction with new TOD requires consideration and balance of expanded ridership opportunities resulting from both TOD and TDM measures. Full evaluation of TOD, TDM and ridership opportunities allows VTA to maximize ridership growth through utilization of multiple effective means to access stations.

2. Site Specific Analysis. Each individual site will be analyzed through the VTA Parking Model (created by an expert independent consultant retained by VTA) which reviews ridership gains created by TOD, weighs parking supply and demand, measures potential impacts of removal of parking and provision of paid parking, and calculates farebox and revenue benefits of TOD. The model results in net new ridership and annual revenues data to assist VTA staff in making informed recommendations to the VTA Board for station area parking strategies. The VTA Parking Model establishes optimal site-specific parking recommendations that:
   
   i. consider the potential increase in ridership and revenue benefits associated with TOD;
   ii. compare the projected increase in land value and fare revenue versus the capital and operating costs of future parking alternatives;
   iii. quantify the opportunity to accommodate new riders arriving by shuttle, taxi, transportation network company (ride-hailing) services, and other first/last mile solutions; and
   iv. measure collective net increases to ridership.

3. Best Practices. A variety of proven and emerging TDM measures can be used in combination to ensure that parking at VTA stations and other VTA-controlled real estate maximizes ridership through TOD and non-auto access, while still providing parking for riders who drive to stations. Staff will coordinate with both Planning and Programming and local planning departments to understand site specific TDM policy context, analysis and/or existing TDM review infrastructure. Prior to development at each VTA-controlled site, the VTA General Manager or designee will
review and either approve or direct the VTA Project Manager to modify requirements for application of best practice TDM measures utilized at the site, including but not limited to:

- shared-use parking agreements with neighboring uses;
- parking districts
- paid parking to fund transit operations, including dynamic (time-of-day based) pricing, for transit riders and/or other users;
- time limits to promote parking turnover;
- real-time, on-site and mobile device updates regarding parking availability;
- amenities for bicyclists, pedestrians, and special needs travelers, such as shelters, lockers, and mode-supportive routes and surfacing;
- valet parking (for vehicles and bicyclists);
- preferential parking for high-occupancy and/or clean air vehicles
- transit passes; and/or
- car, bike and scooter share programs.

VTA will cooperate with partner agencies, jurisdictions, and local employers in determining the need for, and potentially establishing as appropriate, Transportation Management Associations to implement TDM measures.

4. **Paid Parking.** Paid parking is an important TDM tool that can be utilized to shift parking supply and demand to underutilized parking areas throughout the JD Portfolio. Paid parking will be explored on a site by site basis and brought to the VTA Board to allow for site specific discussion and consideration. Any initial paid parking programs will be done on a pilot basis to allow for needed site-specific adjustments.

5. **Station Area Access.** First and last mile solutions are critical for transit users. Ensuring that riders can conveniently arrive at stations and navigate through them will help limit the need for parking and facilitate site design opportunities for housing and other community-supporting TOD uses and activities. Development proposals on VTA-controlled real estate within ¼-mile of a VTA station shall include a station access and wayfinding plan that analyzes station-specific access patterns and shows:

- where riders who arrive by private vehicle will park and the route(s) they will travel from parking to transit boarding areas; and
- where riders arriving by shuttle, paratransit, and ride-hailing services will be dropped off and the route(s) they will travel to transit boarding areas; and
- locations for arrival by bicycles, pedestrian, and special mobility needs travelers, and the route(s) they will travel to transit boarding areas.
Development proposals for all VTA-controlled real estate shall include a curb management plan that designates locations and standing time limits for drop-off and pick-up by non-parking shuttles, taxis, paratransit, and ride-hailing and other private vehicles.

6. Local Regulations. Municipal parking regulations often need updating to reflect changes in the way that transit riders and TOD communities now use parking compared to times past. Refining local standards can help ensure efficient use of parking that promotes ridership and revenue growth and high-quality, sustainable TOD. VTA will work with local jurisdictions to promote updating of regulations to:
   a. eliminate minimum parking requirements for TOD (and establishing maximum parking ratios if and as appropriate);
   b. unbundle parking, such that it can be leased separately from buildings; and
   c. establish facilities standards for passenger drop-off and pick-up and non-vehicular access for new residential and mixed-use development.

E. IMPLEMENTATION

a. Staff will work to insure individual site-specific analysis occurs in accordance with the Board approved VTA TOD Parking Policy.

b. Individual site evaluation results will be summarized for Board review prior to or concurrent with approval of individual TOD Joint Development Agreement (JDA) terms.

c. The General Manager or Designee has the authority to approve best practice VTA TOD Parking Policy implementation adjustments as needed.

VII. AFFORDABLE HOUSING POLICY

A. VTA AFFORDABLE HOUSING PRODUCTION TARGET FOR JOINT DEVELOPMENT

1. Overall Portfolio Target. VTA has set a portfolio target of 35% affordable housing production at build out for joint development projects in VTA’s system. For units in joint developments to be considered affordable, they must be targeted at households earning no more than 60% of Area Median Income (AMI) for Santa Clara County.

2. Individual Project Minimum. Each Joint Development project or station area with residential units will be required to provide a minimum of 20% affordable housing.

3. Deeper Affordability Requirement. At least one-half of affordable housing units will be targeted at Extremely-Low and Very Low Income Households (households earning 50% AMI or less).
4. **Establish An In-Lieu Fee.** VTA will establish an in-lieu fee to allow developers the option of paying a fee rather than including a specified number of affordable units in a joint development project, and will report back to the Board on its implementation and usage.

B. **STRATEGIES TO INCREASE AFFORDABLE HOUSING IN JOINT DEVELOPMENT PROJECTS**

1. **Upzoning Incentive.** On a per-project or per-station area basis, VTA will set a higher target for affordable housing production, to the extent that the local land use jurisdiction rezones the VTA joint development site to allow denser residential development (“upzoning”) that will increase the value of VTA’s property. Up to one-half of the increased number of units from upzoning would be allocated to affordable housing production, up to a maximum of 35% affordable housing in an individual joint development project or a station area.

2. **Proposal Scoring Benefit.** All VTA Joint Development competitive offerings for developer selection will contain competitive selection criteria that provide a scoring benefit to developers who incorporate affordable housing developers into their development team; and include a greater proportion in their development concept and development proposal submittals of affordable housing units, and/or deeper affordability, and/or more family sized units (3-bedrooms or more).

3. **Partnership with Local Jurisdictions.** VTA will pursue partnerships with local jurisdictions to leverage their expertise and resources to increase affordable housing production at VTA joint development sites. This could facilitate access to Low Income Housing Tax Credits, local jurisdiction in-lieu fees, applications to the Affordable Housing and Sustainable Communities (AHSC) Program, and other resources. It could also include public education on the benefits of affordable housing production to generate local support.

4. **Support for Affordable Housing Projects.** VTA will provide endorsements and other support as appropriate for affordable housing development applications or proposals for grant or other affordable housing funding. This applies to projects on VTA joint development sites, as well as sites on property owned by others within station areas, where the project would increase transit ridership and where its land use type and density range reflects best practices for transit-oriented development.

C. **IMPLEMENTATION ACTIONS FOR THE AFFORDABLE HOUSING POLICY**

1. **Authorization for 100% Affordable Development.** The General Manager may propose an individual joint development offering with 100% affordable residential units, as needed to enable VTA to achieve targeted levels of affordable housing production. For 100% affordable residential
joint development projects, at least 50% of the units would be targeted at Extremely-Low and Very Low Income Households (households earning 50% of Area Median Income or lower), and all units would be targeted at households earning no higher than 60% of Area Median Income.

2. **Development of New Approaches for Affordable Housing Production.** The General Manager is authorized to develop and implement new or flexible approaches for development of affordable housing pursuant to VTA’s affordable housing policy, in order to better advance its goals and respond to changes in market or other conditions. The General Manager will notify the Administration & Finance Committee whenever this discretionary authority is exercised.

3. **Modification of Resolutions of Necessity.** To the extent needed, the Board will conduct hearings for new resolutions of necessity to allow properties previously acquired by eminent domain for limited transit uses to be used for Joint Development affordable housing production.

4. **No Land Write-Downs.** VTA will not provide write-downs in land value, or other direct financial assistance, for affordable housing units on Joint Development sites.

5. **Identify Grant Funding, Financial Assistance.** VTA will work to identify grants and other financial assistance that can be made available for individual joint developments that include affordable housing.

6. **Application of Higher Local Requirements.** If a local jurisdiction has an affordable housing production requirement that is equal to or exceeds those in VTA’s Joint Development policy, the local jurisdiction’s requirement will apply.

7. **Preparation of an Annual Report.** VTA will prepare an annual report identifying its affordable housing production to date as a percent of joint development residential units, and identify affordable housing units currently in pre-development or under construction.

8. **Evaluation of Ridership Impacts.** The ridership impacts of affordable housing and joint development will be tracked.

**VII. DEVELOPER SELECTION PROCESS**

After engaging in the participatory process outlined in Section IV above, VTA must next determine which of two possible routes the agency wishes to take to select developers with direct experience in the type of site use and design concept contemplated for a given site, either through an RFP or an RFQ leading to an RFP. By orchestrating a process that is specific to each site—and is based on the Development Concept for a particular mix of use contemplated for that site—VTA expects to be able to target projects to those developers with direct experience in the particular mix of uses proposed for a given jurisdiction.
As noted above, where the consultative process did not result in a clearly defined Development Concept for a given site, staff’s recommendation may be to embark upon an RFQ process to generate new ideas for the site. Where a clear Development Concept does result from the consultations with stakeholders, VTA will, in most cases, issue an RFP.

A. REQUEST FOR PROPOSAL (RFP)

For sites where the VTA Board determines an RFP is the appropriate vehicle, the Board would approve the substantive terms of such an issuance at the same time it approves the Development Concept. Generally, the RFP would require respondents to provide a site development proposal that satisfies the approved Development Concept, a financial pro forma laying out proposed financial terms, and a schedule of development. Market-standard requirements for the given Development Concept also would be called out in the specific RFP document and/or in separate VTA procurement policies and procedures. At a minimum, the RFP would include the:

1. **Developer Qualifications.** Extensive firm and project team experience in transit-oriented development projects, in projects that have generated strong revenue generation for public agencies as joint partners, in achieving required high-quality urban design, and in managing highly complex construction projects on time and budget.

2. **Commitment to Environmental Building Practices.** Experience in construction projects that include environmentally-sustainable practices and products, in conformance with local jurisdiction requirements, and that have achieved LEED certification or similar building measures.

3. **Strong Familiarity with Complex Land Use Environments.** Strong familiarity with and, preferably, proven success with navigating development projects through complex land use regulatory environments.

4. **Ground Lease Management.** For projects that involve ground leases with VTA, experience with public agencies, with successful property management and profit- and- loss management of real estate developments over time, and/or in the sales and leasing of residential and commercial development products, as appropriate.

B. REQUEST FOR QUALIFICATIONS, QUALIFIED DEVELOPER LIST, AND RFP

As noted above, in some cases where a clear Development Concept has not emerged or there is a desire to test market feasibility of a potential design concept or concepts, VTA may first issue an RFQ to identify a set of qualified developers with experience in the type of uses contemplated for a given site and the capacity to enter into a public-private project of the type envisioned. Those developers selected to be on the “Qualified Developer List” will then receive an RFP soliciting their interest in constructing the project and fulfilling the financial goals.
of the VTA with the project. The VTA Board must approve the terms and conditions set forth in the RFQ, as well as the subsequent Qualified Developer List and RFP.

C. **PROPOSAL EVALUATION PROCESS**

To review and score the RFPs, VTA will establish a proposal evaluation process that involves agency staff from the VTA Project Team and the Joint Development Program and the appropriate staff from the local jurisdictions, consistent with VTA’s competitive bidding process. The process will employ evaluation criteria selected for each project based on the circumstances at hand, and those criteria will be included in a subsequent action item to the Board concerning any proposed developer.

For projects involving an RFQ, the initial review will be by VTA staff only, but any subsequent RFP resulting from the RFQ would involve the larger team as noted above.

The assembled group reserves the right not to select a developer from the RFP process and to re-structure the RFP or RFQ if the response is unsatisfactory.

From time to time, the Joint Development Program will solicit external comments on the efficiency of the process and solicit comments on how it may be improved.

D. **VTA BOARD APPROVAL OF DEVELOPER’S PROPOSED RESPONSE**

The VTA Board must approve the proposed selection by VTA of a Developer’s Response to the RFP. Following established procedure, the approval will generally be limited to acceptance of the Design Concept and will include approval to enter into negotiations with a Developer toward an Exclusive Negotiation Agreement. The approval is conducted formally in an open session properly noticed and includes consideration of the Developer’s response to the RFP, including the response to all terms and conditions as set forth in the approved RFP. The Board reserves the right to request negotiation with the selected developer to improve the proposal as necessary. The Board also reserves the right to reject the staff proposal and to select an alternative or to order the staff to conduct an additional review process.

The staff report prepared for the Board’s consideration of the item will fully explain key issues in the RFP or RFQ, summarize the responses received to the RFP or RFQ, the process by which the Developer’s proposal was reviewed, the ranking of the selected proposal, and any significant matters the staff and believe important for the Board’s informed review. If the proposal is not unanimously supported by the VTA staff, the reasons for differences in scoring, or position, will be summarized for the Board in the staff report.

E. **UNSOLICITED DEVELOPMENT PROPOSALS**
From time to time, VTA may receive unsolicited offers to acquire or develop sites. Notwithstanding the competitive solicitation process outlined above, the Joint Development Program will examine any such offers based on the criteria described below. The primary intention is to ascertain if the unsolicited offers have the likelihood to achieve the Joint Development Policy objectives better than the standard procedures outlined in this Implementation Plan.

Specifically, the unsolicited offers would be considered only if:

- The unsolicited property is not located at or near a light rail, Caltrain or BART station;
- The unsolicited property does not offer significant potential for Joint Development through a public private partnership;
- The unsolicited property size is very limited; and
- A financial analysis of the proposal concludes that accepting the offer is more cost-effective to VTA than the costs associated with the competitive solicitation process required in the Guidance Documents.

Upon determining that an unsolicited offer should be considered, the Joint Development Program should initiate the participatory process outlined above to determine the level of internal and external consensus for the unsolicited offer and make a recommendation to the VTA Board for formal action.

VIII. DEVELOPMENT PATH – EXCLUSIVE NEGOTIATING AGREEMENT AND JOINT DEVELOPMENT AGREEMENT

For all projects, following selection of a Developer, the VTA Board will authorize the General Manager to negotiate and execute an Exclusive Negotiating Agreement (ENA) between the Developer and VTA. The ENA grants the Developer sole opportunity to propose a development project for the land subject to the ENA during the term of the ENA. If all the terms of the ENA are subsequently satisfied, including the approval by the local jurisdiction of the project, the VTA Board may approve a proposed Joint Development Agreement (JDA) which sets forth the respective obligations of the Developer and VTA regarding development of the site and compensation to VTA and defines the legal structure between the Developer and VTA that is most appropriate for the particular project.

A. EXCLUSIVE NEGOTIATING AGREEMENT

The ENA establishes a project schedule under which the developer is permitted to carry out certain tasks to develop a project and the VTA is obligated to provide appropriate assistance and review. A non-refundable fee is charged by VTA for all ENAs, to include fees for VTA staffing to the necessary coordination, technical reviews and agency support during the term of the ENA. Developer task include the following, among others:
1. **Due Diligence.** To conduct due diligence investigations of the subject property, including title searches, property inspections, environmental test, and similar work.

2. **Stakeholder Involvement.** To meet with stakeholders on alternative proposals for the site, including the jurisdiction, the general public, VTA advisory groups and others.

3. **Final Project Design and Uses.** To propose a final project design and mix of uses to the VTA Board for their approval in a format set forth by VTA as part of the approval.

4. **Financial Pro Forma.** To produce a financial pro forma for the final project in sufficient detail to permit financial analysis by VTA.

5. **Submittal to Local Planning Authority for Approval.** If the final project is approved, to submit a formal application including the project information to the local governmental jurisdiction for planning approvals.

6. **Joint Development Agreement Negotiation.** To negotiate a Joint Development Agreement for subsequent approval.

**B. JOINT DEVELOPMENT AGREEMENT**

Subsequent to approval of a project by the VTA Board and the local land use having jurisdiction, VTA will negotiate a JDA that is project-appropriate and reflective of industry standards for public-private property development. The JDA covers the following topics in most cases:

1. **Ownership.** Assignment, transfers and management control is established.

2. **Site Description and Development Site Plan.** Maps, legal description of the property, including air space development rights, and other requirements that may be specific to the VTA (track alignment paths, for example); site plan; specific technical plans for construction, grading and landscaping; subdivision maps and similar maps.

3. **Permit Requirements.** An enumeration of the permits and planning approvals and covenants that VTA will cooperate with the Developer to obtain, to include permitted and prohibited uses.

4. **Funding and Financing.** Evidence of financial capability to carry out the project; compensation and other payments required to be conveyed to VTA, payments of taxes and insurance; hold harmless and indemnity clauses; allocation of liability and responsibility for remediation of environmental contamination.
5. **Environmental and Other Entitlements.** Certifications of compliance with environmental regulations and restrictions required by the state, regional agencies, the federal government or other entities.

6. **Specification of VTA Approval Rights of Approval.** Depending on the site, there may be an extensive list of matters the VTA will retain the rights to approve, such as vehicular entrances and exits, relocation of property, ownership rights of leaseholds and similar matters.

**IX. POST-CONSTRUCTION REVIEW**

The Post-Construction Review will be led by the Project Team and VTA Project Manager, who will prepare a report on the effectiveness of the process and procedures and provide an opportunity for VTA staff and management and to amend these. Typically occurring at the 11th month after a Certificate of Occupancy is issued by the local jurisdiction, such a review would include:

- Examining the developer selection process at close of construction to determine if adequate criteria were used and if the developer’s communications, documentation and responsiveness were in accord with the ENA;
- Determining if the quality of construction as determined by the punch list of remaining issues;
- Noting any desired changes to VTA specifications for future similar projects, noting quality of materials, aesthetic requirements or engineering requirements;
- Noting the effects on transit operations and whether they were properly accounted for in the project scope;
- Concluding if the budget and change orders fell within expected parameters;
- Examining the revenue projections included in the JDA and noting any unusual market conditions, use changes or other factors that may affect the revenue projection;
- Project Team effectiveness in identifying critical issues, responding to requests for information by developer and identifying issues for the developer to respond to, this portion of the report to include suggestions for improvements in the project management process; and
- Other matters that may arise in the course of the project.

This report would be made available to the VTA General Manager and a summary may be provided to the Board or a subcommittee as it deems appropriate.
INDEX OF ATTACHMENTS/EXHIBITS

ATTACHMENT 1: Real Estate Inventory

ATTACHMENT 2: Joint Development Portfolio

Available at http://www.vta.org/realestate/jointdevelopmentportfolio

ATTACHMENT 3: Priority Schedule

[TO BE ATTACHED AND INCORPORATED WHEN CREATED]
Overview

• Background: TOD to date
• Updates to TOD Policy
• Updates to Affordable Housing Policy
VTA’s TOD Program History

• VTA’s TOD Program helps achieve the County’s Congestion Management Agency (CMA) mission of a balanced approach to solving transportation problems

• VTA’s Enabling Act provides authority to create Transit-Oriented Joint Development projects aimed at increasing transit ridership and reduction of single occupancy vehicle trips
VTA’s TOD Program History

- 2009: Last major Policy update
- 2016: Affordable Housing Policy
- 2018: TOD Parking Policy
Vision & Goals

• Increase ridership
• Create mixed-use and mixed-income equitable TOD
• Catalyze Transit-Oriented Communities (TOC)
• Generate long-term stable revenues
TOD Portfolio

- 25 sites approved by BOD
- Acquired sites no longer needed for Capital Projects (BART Phase II) are automatically added to the Portfolio
TOD Policy Changes

- Advances Equity and Transit-Oriented Communities framework
- Provides for more flexibility for developer offering methods and processes
- Outlines appeal process for developer selection
- Promotes neighborhood and workforce preference
- Identifies that capital project sites no longer needed for construction are automatically added to TOD portfolio
Affordable Housing Policy Changes

• Allow sale to funding agencies for 100% affordable projects sites

• Maintain minimum of 20% affordable for individual sites

New:

• averaging no higher than 60% Area Median Income (AMI)

• Or align with local jurisdiction inclusionary AMI levels, maintaining averages no greater than 70% AMI

• Or other target affordability levels as identified by the Board
Additional Affordable Housing Policy Changes

• Maintain Portfolio wide target of 35% affordable housing

New:
• allowing AMI levels up to 120%, averaging no greater than 80% AMI

• Provide Annual Board updates/reports on TOD progress and Affordable Housing goals
Next Steps

• November 2019:
  • Additional stakeholder feedback
  • Advisory Committees
  • Standing Committees

• December 2019: Board of Directors
Discussion
BOARD MEMORANDUM

TO: Santa Clara Valley Transportation Authority
    Technical Advisory Committee

THROUGH: General Manager, Nuria I. Fernandez

FROM: Deputy GM/Chief Financial Officer, Raj Srinath

SUBJECT: 2016 Measure B Innovative Transit Service Models Competitive Grant Program Draft Criteria

Policy-Related Action: Yes                Government Code Section 84308 Applies: No

ACTION ITEM

RECOMMENDATION:

Recommend that the VTA Board of Directors approve the 2016 Measure B Innovative Transit Service Models Competitive Grant Program criteria.

BACKGROUND:

On November 8, 2016, the voters of Santa Clara County approved by over a two-thirds vote Measure B, a 30-year, ½ cent sales tax measure to support transportation projects and services. 2016 Measure B includes $500 million (in 2017 dollars) for the Transit Operations Program. One of the Transit Operations candidate projects and programs is to support new innovative transit service models to address first/last mile connections. Per 2016 Measure B, the Innovative Transit Service Models program intends to:

“Support affordable new innovative transit service models to address first/last mile connections including FLEX type services, dynamic on-demand subscription shuttles and partnerships with other demand responsive services providers serving vulnerable, underserved and transit-dependent populations.”

The VTA Board of Directors adopted the draft framework of the proposed Innovative Transit Service Models Competitive Grant Program at their March 7, 2019 meeting. The framework includes the following elements:

- Innovative service/business model
- Provides first/last-mile connections to existing frequent transit
• Serves vulnerable/transit-dependent populations
• Service is affordable
• Serves underserved market
• Project readiness
• Level of local contribution
• Cost effectiveness

DISCUSSION:

The proposed Innovative Transit Service Models Grant Program criteria were developed based on the adopted framework. During August and September 2019, VTA staff worked with the Technical Advisory Committee (TAC) Capital Improvement Program Working Group (CIPWG) to refine the proposed criteria and develop the details of the competitive grant program.

Projects eligible for the proposed grant program are transportation services that provide first and last-mile connections to public transit. The candidate projects must be implemented within one year of the grant award. Planning or feasibility studies are ineligible, as are projects which compete with or duplicate VTA or another transit provider’s services.

Call for projects will occur every two years. The VTA Board-adopted allocation for the Innovative Transit Service Models subcategory is $3 million for each of the FY18 & FY19, and FY20 & FY21 budget cycles. The first call for projects, anticipated in early 2020, will be for the four-year total allocation amount of $6 million.

Overall, the proposed program has eight base criteria with a total of 110 points (see Attachment A for details). Candidate projects must score at least 60 points to be considered. Each criterion is described as follows:

Criterion #1: Innovative Service/Business Model (Maximum 30 points)

Points are awarded for innovation in project delivery. The innovations may include, but are not limited to:
• Unique partnership and funding arrangements;
• Flexible transit service delivery models;
• Technical capabilities such as integrated payment, incentives for traveler choices, mobile applications, on-demand software, and/or real-time transit data;
• Innovative data sharing or data collection methods;
• Innovative community outreach strategies.

This criterion is assigned the highest weight of 27% because the program pivots on innovative transportation solutions to first/last mile issues. The extent of innovation will be judged on the project’s originality, market-readiness, transferability and conservation of travel time/cost.

Criterion #2: First/Last Mile Connections to Frequent Transit (Maximum 30 points)

Points are awarded if the project service includes one or more of the following elements:
• Provides a more direct multi-modal connection
• Increases average travel speed
• Improves an existing first/last mile connection between frequent transit stops, major residential/employment areas or major activity centers.

This criterion will be evaluated on the density of residents and/or employment, as well as the number of transit connections.

Similar to Criterion #1, this criterion is also assigned the highest weight of 27%, as the program’s intent is to fund projects that address both first/last connections and enhance innovation in transit service delivery. Criteria #1 and #2 together reflect the essence and primary objectives of the program.

Criterion #3: Serves Vulnerable/Transit-dependent Populations (Maximum 10 points)

Points are awarded if the project benefits individuals who are dependent on transit, have disabilities, and/or have low income. This criterion emphasizes the accessibility of convenient transit services for vulnerable and/or transit-dependent populations. Vulnerable and/or transit-dependent populations may include people with disabilities, people with low income or no personal vehicles, or youth.

Criterion #4: Affordable Service (Maximum 10 points)

Points are awarded based on the average fare per trip for vulnerable/transit-dependent populations. This criterion is to ensure affordability for customers, especially vulnerable/transit-dependent populations.

Criterion #5: Serves Underserved Market (Maximum 5 points)

Points are awarded if the project provides new or supplementary transit service to a geographic area that has infrequent or no frequent transit service, or targets underserved markets within the transit network, such as specific commute patterns or service hours.

Criterion #6: Project Readiness (Maximum 5 points)

Points will be awarded based on the project’s anticipated implementation timeline and state of development. As mentioned, eligible projects must be deployed within one year of grant award. The candidate project can score the maximum five points when a feasibility/planning study is completed and vehicles, equipment, and/or required labor services have been secured.

Criterion #7: Non-2016 Measure B Contribution (Maximum 10 points)
Points are awarded if the project sponsor pledges or provides more than the minimum 10% non-2016 Measure B contribution. A maximum of 10 points will be awarded for a 20% or greater non-2016 Measure B contribution.

Criterion #8: Cost Effectiveness (Maximum 10 points)
Points are awarded based on the average cost per passenger trip for the project service. The
project sponsor is required to provide ridership forecasts and cost estimates. This criterion prioritizes projects that more effectively increase transit ridership or improve service efficiency.

Staff presented the draft criteria to the Citizens Advisory Committee (CAC), Technical Advisory Committee (TAC) and Policy Advisory Committee (PAC) at their October meetings. Committees had robust discussions and provided varying comments on several criteria and their point values (See Advisory Committee Discussion/Recommendation for more details). Considering this, staff decided to bring back the criteria and all comments received from three committees to the CIPWG at the October 22 meeting for further review.

After discussion, the CIPWG recommended no changes to currently proposed criteria point values. The discussion and recommendations from the CIPWG are summarized as follows:

- Overall Criteria Review: Staff agreed with TAC and PAC to review the proposed criteria after the first round of call-for-projects.
- Program Eligibility: No change to the requirement that candidate projects cannot duplicate VTA or another transit provider’s service.
- Criterion #2 First/Last Mile Connections to Transit: Keep the criterion at 30 points as this criterion reflects one of the program’s primary objectives; per TAC’s request, staff will clarify the first/last mile catchment area as “½ mile actual walking distance or 1 ½ actual biking distance to the service’s proposed pick-up/drop-off points”, depending on what mode the proposed service intends to serve; for example, if the project clearly indicates that the service can accommodate bicycles, then its catchment area will be based on a 1 ½ actual biking distance buffer.
- Criterion #3 Serves Vulnerable/Transit-dependent Population: No change to the current definition of ‘transit-dependent population’, as it does not exclude seniors with low-income or no personal vehicles.
- Criterion #4 Affordable Service: Update the point scale of high points to projects with average fare cost of one dollar or less; medium points to projects with average fare cost of four dollars or less; and low points to projects with an average fare of more than four dollars;
- Criterion #5 Serves Underserved Market: Clearly define the “underserved market” as “geographic area that currently has infrequent or no frequent transit service” to avoid misinterpretation;
- Criterion #7 Non-2016 Measure B Contribution: No change to this criterion;
- Criterion #8 Cost Effectiveness: Keep the criterion at 10 points.

Next Steps

Staff will incorporate comments from the CIPWG and Advisory Committees, and present the updated criteria to committees at their November meetings. This item is expected to be heard by the VTA Board of Directors for approval in December 2019. After approval by the VTA Board of Directors, staff will develop the application and the guidelines for the application process and issue a call for projects. The call for projects is anticipated in summer 2020.

ALTERNATIVES:
The Board of Directors can choose not to approve the criteria at this time and direct staff to further refine the criteria. The consequence would be to delay funding for potential 2016 Measure B Innovative Transit Service Models projects.

**FISCAL IMPACT:**

There is no fiscal impact to VTA associated with the approval of the 2016 Measure B Innovative Transit Service Models Competitive Grant Program criteria as the FY20 and FY21 allocations for this subcategory have already been approved. Future funding for the competitive grant program will be approved by the Board of Directors with the approval of the biennial budget.

**ADVISORY COMMITTEE DISCUSSION/RECOMMENDATION:**

The Citizens Advisory Committee (CAC) heard this item at their October 8, 2019 meeting. The lively and robust discussion with CAC members included point values of specific criterion, incorporating “elderly” as a category in the ‘Vulnerable/Transit-dependent Population’ criterion, and the possibility of permitting candidate projects to compete with VTA or another transit provider’s service. The CAC made several motions, but none carried enough votes to pass. Therefore, the CAC requested their comments to be documented and shared with other committees as follows:

- Program Eligibility: The grant program should allow competition by allowing projects to duplicate or overlap with VTA or another transit provider’s service;
- Criterion #2 First/Last Mile Connections: Change the ½ mile walking distance to ¼ mile walking distance; Add language prohibiting candidate projects from competing with existing on-demand paratransit;
- Criterion #3 Serves Vulnerable/Transit-dependent Population: Increase the value from 10 points to 25 points; Add “elderly” as a category of vulnerable/transit-dependent population;
- Criterion #5 Serves Underserved Market: Increase the value from five points to 20 points; Award points if a candidate project targets underutilized transit service areas where there may be existing VTA or another transit provider’s service; and
- Criterion #7 Non-2016 Measure B Contribution: Award more points if the applicant partners with a private entity.

The Technical Advisory Committee (TAC) heard this item at their October 9, 2019 meeting. Discussion centered around the first/last mile distances, as identified in the criteria, and how they would be applied in project scoring. Staff clarified that the ½ mile actual walking distance or 1½ mile actual biking distance is the catchment area from the proposed service’s pick-up/drop-off location, not from transit. The TAC also recognized the newness of this grant program and the challenge in defining the criteria without knowing specific candidate projects.

Upon completion of discussion, the TAC recommended this item for approval, with the following amendments: (1) provide clarification on first/last mile catchment area in the final criteria; and (2) request staff to review the criteria after first round of call for projects.
The Policy Advisory Committee (PAC) heard this item at their October 10, 2019 meeting. The PAC recognized and appreciated that the criteria mirrored the language of the 2016 Measure B. Robust discussion occurred around Criterion #3 Serves Vulnerable/Transit-dependent Population, Criterion #4 Affordable Service and Criterion #8 Cost Effectiveness.

Criterion #3 Serves Vulnerable/Transit-dependent Population

PAC requested clarification on why the elderly population was not included as a category of vulnerable/transit dependent population. Staff reiterated the intent is to serve vulnerable/transit-dependent population, and elderly who are disabled, low income or have no personal vehicles can be captured in these categories.

Criterion #4 Affordable Service

PAC requested that staff update the ‘high’ points with an average fare cost of one dollar or less, so that applications would not be artificially lowered to ninety-nine cents to earn the maximum points. PAC additionally requested that the corresponding points and dollar values be adjusted to reflect the new amounts. Staff agreed with these requests and will make the changes in the final criteria.

Criterion #8 Cost Effectiveness

PAC indicated that the value of the criterion should be increased to ensure that selected projects are financially sound, and a program should pay for at least 50% of its own cost. Some members expressed different perspectives: Since the program funds mostly pilot projects, the criterion of Cost Effectiveness is not as relevant as other criteria, and instead of increasing points for this criterion, Criterion #5 Serves Underserved Market and Criterion #6 Project Readiness should be increased as they are more critical.

After hearing comments from the CAC and TAC, the PAC recommended this item for approval, with the following amendments:

- Reduce Criterion #2 First/Last Mile Connections to Transit to 25 points and increase Criterion #8 Cost Effectiveness to 15 points, to retain a total of 110 points;
- Revise Criterion #4 Affordable Service to give high points to projects with average fare cost of one dollar or less; medium points to projects with average fare cost of four dollars or less; and low points to projects with average fare of more than four dollars; and
- Request staff to review the program criteria after first round of call for projects.

Prepared by: Nicole He
Memo No. 7053

ATTACHMENTS:
- MT7053_AttachmentA_2016MB_InnovativeTransit_Draft_Criteria_191025 (PDF)
- Presentation - 2016 Measure B Innovative Transit Service Models Competitive Grant Program Criteria Nov 2019 (PDF)
- Presentation - 2016 Measure B Innovative Transit Criteria - CTMA - Nov2019 (PDF)
2016 Measure B Innovative Transit Service Models Competitive Grant Program Criteria (DRAFT)

Project Screening Criteria

- 2016 Measure B eligible;
- Eligible projects are transportation services or models that provide first and last-mile connections to public transit. Planning or feasibility studies are not be eligible.
- Project must score at least 60 points;
- Project delivery schedule must be included;
- The project service may be targeted and limited to specific demographics (e.g. school children, seniors, people with disabilities, etc.) to the extent not prohibited by applicable law.
- The project must be implemented within one (1) year of grant award;
- The project service must not duplicate existing VTA or another transit provider or city’s services;
- Minimum Amount: $250,000 per call for projects. Call for projects will occur every two years.
- Maximum Amount: 50% of the total available funds per call for projects per cycle. Currently available funds for the first cycle (FY18 – FY21) will be $6 million in total.

Scoring Matrix

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Max Points</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Innovative service/business model</td>
<td>30</td>
<td>27%</td>
</tr>
<tr>
<td>2. First/last mile connections</td>
<td>30</td>
<td>27%</td>
</tr>
<tr>
<td>3. Serves vulnerable/transit dependent population</td>
<td>10</td>
<td>9%</td>
</tr>
<tr>
<td>4. Affordable service</td>
<td>10</td>
<td>9%</td>
</tr>
<tr>
<td>5. Serves underserved market</td>
<td>5</td>
<td>5%</td>
</tr>
<tr>
<td>6. Project readiness</td>
<td>5</td>
<td>5%</td>
</tr>
<tr>
<td>7. Non-2016 Measure B Contribution</td>
<td>10</td>
<td>9%</td>
</tr>
<tr>
<td>8. Cost effectiveness</td>
<td>10</td>
<td>9%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>110</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

1 Funding an existing service isn’t considered duplication.
Criterion #1 - Innovative service/business model (Max. 30 points)

Does the project present an innovative aspect in its project delivery?

(a) Points awarded if the project provides a qualitative and/or quantitative description about any innovation of the following, including but not limited to:

- Unique partnership and funding arrangements;
- Flexible models of transit service delivery;
- Technical capabilities, such as:
  - integrated payment systems,
  - incentives for traveler choices,
  - mobile applications,
  - on-demand software, and/or
  - real time transit data;
- Innovative data sharing arrangements and/or data collection methods, such as
  - open data platform,
  - crowdsourcing information and/or incentive-based participation in data collection.
- Innovative community outreach strategies.

(b) Point Distribution:

- Can achieve a maximum of 30 points. The Project Sponsor will be required to identify 3 most innovative aspects of its project and describe how it is being innovative.
- Innovation (up to 10 points each) will be judged on the following:
  - Originality – How new is it to the Santa Clara County? New projects are those where there was no similar service available in the County within the past three years; projects that will result in significantly expanded service may be considered new.
  - Market-readiness – What is the expected utility of new service models, systems and/or technologies?
  - Transferability – How likely is it to be extended into other areas?
  - Conservation of Resources – How much time or money does it save, in comparison to existing conditions?
- Any other innovations that are not mentioned above can be considered and awarded points at the Scoring Committee’s discretion, however the points are capped at a maximum of 30 points.

<table>
<thead>
<tr>
<th>Aspect of Innovation</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unique partnership and funding arrangements</td>
<td>Each innovation aspect can be awarded up to 10 points; this criterion can receive up to 30 points</td>
</tr>
<tr>
<td>Flexible models of transit service delivery</td>
<td></td>
</tr>
<tr>
<td>Innovative technical capabilities</td>
<td></td>
</tr>
<tr>
<td>Innovative data sharing arrangements or data collection methods</td>
<td></td>
</tr>
<tr>
<td>Innovative community outreach strategies</td>
<td></td>
</tr>
</tbody>
</table>
**Criterion #2 - First/last mile connections to frequent transit (Max. 30 points)**

Does the transit service provide first/last mile connections to frequent transit routes?

(a) Points awarded if the transit service provides a more direct multi-modal connection, increases the average travel speed or improves an existing first/last mile connection between frequent transit stations/stops, major residential areas, employment areas, or major activity centers.

(b) Point Distribution:
- The project can receive a maximum of 30 points, based on the potential ridership captured by the first/last mile catchment area:
  - The first/last mile catchment area is the area of ½ mile actual walking distance or 1 ½ mile actual biking distance to the proposed service’s pick-up/drop-off points, depending on the mode to be served by the proposed service. For example, if the project clearly indicates that its transportation can accommodate bicycles, the catchment area will be a 1 ½ mile actual biking distance buffer to the pick-up/drop-off points.
  - Points are not additive. Projects will be scored within the “HIGH,” “MEDIUM,” or “LOW” point range based on its highest category destination;
  - Example: If the project scores in the HIGH category for all three elements, 30 points can be received. If the project scores one HIGH category only, 21 points can be achieved.

<table>
<thead>
<tr>
<th>Points</th>
<th># of residents within the first/last mile catchment area</th>
<th># of jobs within the first/last mile catchment area</th>
<th># of transit lines that proposed service connects to</th>
</tr>
</thead>
<tbody>
<tr>
<td>High 21 - 30</td>
<td>≥ 3,000</td>
<td>≥ 2,000</td>
<td>Connects to more than 2 routes in the frequent transit or regional rail network</td>
</tr>
<tr>
<td>Medium 11 – 20</td>
<td>1,001-2,999</td>
<td>501 – 1,999</td>
<td>Connects to 2 routes in the frequent transit or regional rail network</td>
</tr>
<tr>
<td>Low 1 - 10</td>
<td>≤ 1,000</td>
<td>≤ 500</td>
<td>Connects to 1 Frequent transit route or regional rail service</td>
</tr>
</tbody>
</table>

(c) Notes:
- First/last mile problem definition: An individual may use different modes of transport to complete a trip; they may walk, drive, ride a bicycle, take a train, or in many cases they combine a number of modes. “Public transportation agencies typically provide bus and rail services that may frame the core of such trips, but users must complete the first and last portion on their own; they must first walk, drive or roll themselves to the nearest station. This is referred to the first and last mile of the user’s trip, or first last mile for short, even though actual distances vary by users.”
  - Refer to LA Metro’s First Last Mile Strategic Plan: [https://media.metro.net/docs/First_Last_Mile_Strategic_Plan.pdf](https://media.metro.net/docs/First_Last_Mile_Strategic_Plan.pdf)
- Transit is defined as: ‘Transportation by a conveyance that provides regular and continuing general or special transportation to the public, but does not include school bus, charter, or sightseeing transportation.’
  - FTA: [https://www.transit.dot.gov/about/regional-offices/region-9/there-fta-dictionary](https://www.transit.dot.gov/about/regional-offices/region-9/there-fta-dictionary)
- Frequent transit route as defined by VTA:
  - 15 minute or better frequency from 6:30a to 6:30p, M through F
- Major residential area is quantified by number of residents
- Major employment area is quantified by number of jobs

**Criterion #3 - Serves vulnerable/transit dependent populations (Max. 10 points)**

**Does the project ensure equal access for individuals with disabilities, low incomes, and/or dependent on transit?**

(a) Points awarded if the project benefits individuals who are dependent on transit, have disabilities, and/or low incomes.

(b) Points distribution:
   - The project can receive a maximum of 10 points
   - The project sponsor must identify and quantify the groups of vulnerable/transit dependent population in the project service area, articulate the benefits to these population and provide descriptive justification to serve their need.

(c) Notes:
   - Vulnerable/Transit-dependent population includes:
     - Individuals with disabilities;
     - Individuals with low-income;
     - Individuals with no personal vehicles; and
     - Youth as defined for VTA’s fare structure.
Criterion #4 - Affordable Service (Max. 10 points)

Does the project provide subsidy to vulnerable/transit-dependent customers?

(a) Points awarded if the project benefits individuals who dependent on transit such as youth, have disabilities, and/or low incomes. The Project Sponsor will need to clarify the project’s proposed fare structure.

(b) Points distribution:

- The project can receive a maximum of 10 points; the number of points will be scaled based on the average fare per trip to vulnerable/transit-dependent customers, as follows:

<table>
<thead>
<tr>
<th>Points</th>
<th>Average Fare per Trip to Vulnerable/Transit-dependent Customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>10 points</td>
</tr>
<tr>
<td>Medium</td>
<td>5-9 points</td>
</tr>
<tr>
<td>Low</td>
<td>1-4 points</td>
</tr>
<tr>
<td></td>
<td>$\leq 1$</td>
</tr>
<tr>
<td></td>
<td>$1.01 - 4$</td>
</tr>
<tr>
<td></td>
<td>More than $4$</td>
</tr>
</tbody>
</table>

Criterion #5 - Serves underserved market (Max. 5 points)

Does the project serve an underserved market?

(a) An underserved market is a geographic area that currently has infrequent or no frequent transit service. Points awarded if:

- The project provides new or supplementary transit service to an underserved market;
- OR
- The project targets new markets currently not served such as specific commute patterns and/or early morning/late night service.

(b) Point distribution:

- 5 points if either option is achieved.

(c) Notes:

- The project must include ridership projections for new transit service.
Criterion #6 - Project Readiness (Max. 5 points)

How close is the project to be delivered?

(a) Points awarded if:
- The application includes a timeline of project implementation detailing all significant milestones and the roles of responsible project partners (if any). The timeline should include elements such as when the project will start, when it will be fully operational, and the length of time for anticipated data collection activities;
- The project will be implemented within one (1) year of grant award;

(b) Point Distribution:
- The project can receive a maximum of 5 points.

<table>
<thead>
<tr>
<th>Points</th>
<th>Description</th>
</tr>
</thead>
</table>
| **High** 5 points | - The project has completed a feasibility/planning study or similar analysis to provide the basis for project implementation; and  
- The project has secured vehicles, equipment, and/or labor services required |
| **Medium** 3 points | - The project has completed a feasibility/planning study or similar analysis to provide the basis for project implementation; and  
- The project may be in progress of securing vehicles, equipment, and/or labor services required |
| **Low** 1 point | - The project may be in progress of completing a feasibility study or similar analysis to provide the basis for project implementation; and  
- The project has not secured vehicles, equipment, and/or labor services required |
Criterion #7 - Non-2016 Measure B Contribution (Max. 10 points)

How much non-2016 Measure B contribution is the project sponsor providing?

(a) Points awarded if:
• The project sponsor pledges/provides more than the required 10% non-2016 Measure B contribution

(b) Point Distribution:
• The project can receive a maximum of 10 points.
  o 10 points: Provides ≥ 20% non-2016 Measure B contribution;
  o 2 points for every additional 1% non-2016 Measure B contribution beyond the minimum 10% requirement (i.e. 4 points for 12%);
  o 0 point: Provides the minimum 10% non-2016 Measure B contribution.

(c) Notes:
• If the project sponsor states that they will provide a higher percentage of matching funds, they will be required to provide the matching percentage.
• If project costs increase and are anticipated to be over budget, 2016 Measure B funds will not be increased. Project sponsor is responsible for cost overruns.
• If the project is anticipated to be delivered under budget, 2016 Measure B funds will be reduced in proportion to project sponsor’s contribution

Criterion 8 - Cost Effectiveness (Max. 10 points)

What is the total cost per passenger trip in relation to the subsidy provided?

(a) Points awarded if:
• The project demonstrates the cost estimate per trip in relation to the subsidy provided;
• The project provides some quantitative forecast to number of users and average trip length
• and
• The project presents the ridership projections with a quantifiable and defensible methodology.

(b) Point Distribution: Maximum 10 points;
• The cost-effectiveness will be judged on the average cost per passenger trip for this service.

<table>
<thead>
<tr>
<th>Points</th>
<th>Cost per Passenger Trip</th>
</tr>
</thead>
<tbody>
<tr>
<td>High (10 Points)</td>
<td></td>
</tr>
<tr>
<td>Medium (5 – 9 Points)</td>
<td></td>
</tr>
<tr>
<td>Low (1 – 4 Points)</td>
<td></td>
</tr>
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</table>
2016 Measure B Innovative Transit Service Models Competitive Grant Program Criteria

Advisory Committees

November 2019
## Proposed Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Max Points</th>
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<td>1. Innovative Service/Business Model</td>
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<td>10</td>
</tr>
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</tr>
<tr>
<td>5. Serves Underserved Market</td>
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<td>6. Project Readiness</td>
<td>5</td>
</tr>
<tr>
<td>7. Non-2016 Measure B Contribution</td>
<td>10</td>
</tr>
<tr>
<td>8. Cost Effectiveness</td>
<td>10</td>
</tr>
</tbody>
</table>

**TOTAL** 110
Criterion #2: First/Last Mile Connection (Max. 30 points)

Catchment Area

Shaded area will be considered as the proposed service’s catchment area.
Criterion #3: Serves Vulnerable/Transit-dependent Population (Max. 10 points)

• Points awarded if the project benefits vulnerable/transit-dependent population:
  ➢ Individual with disabilities;
  ➢ Individuals with low-income;
  ➢ Individuals with no personal vehicles; and
  ➢ Youth
• Elderly are not excluded if they are disabled, low-income, or have no personal vehicles.
Criterion #4: Affordable Service
(Max. 10 points)

• Based on average fare per trip for vulnerable/transit-dependent population:
  ➢ High points: ≤$1
  ➢ Medium points: $1.01 - $4
  ➢ Low points: >$4
Criterion #5: Serves Underserved Market (Max. 5 points)

- “Underserved Market”: A geographic area that currently has infrequent or no frequent transit service.

- Points awarded if:
  - The project provides new or supplementary transit service to an underserved market;
    OR
  - The project targets new markets currently not served such as specific commute patterns and/or early morning/late night service.
Criterion #8: Cost Effectiveness (Max. 10 points)

- Based on average cost per passenger trip:
  - Ridership projection
  - Project cost estimate
Next Steps

Committees approve criteria
_{Nov 2019}_

Board adopts criteria
_{Dec 2019}_

Staff creates application & guidelines
_{Winter 2020}_

Call for Projects
_{Spring 2020}_
Convene Scoring Committee

Board Adopts project list
_{Summer/Fall 2020}_
## Proposed Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Max Points</th>
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<tbody>
<tr>
<td>1. Innovative Service/Business Model</td>
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<td>10</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>110</strong></td>
</tr>
</tbody>
</table>
BOARD MEMORANDUM

TO: Santa Clara Valley Transportation Authority
   Technical Advisory Committee

THROUGH: General Manager, Nuria I. Fernandez

FROM: Director of Planning and Programming, Deborah Dagang

SUBJECT: Community Design and Transportation Manual Update – Scope and Schedule

FOR INFORMATION ONLY

BACKGROUND:

As the Congestion Management Agency for Santa Clara County, the Santa Clara Valley Transportation Authority (VTA) is responsible for countywide transportation and land use planning efforts. VTA published the Community Design and Transportation Manual (CDT) in 2003. The CDT provides Member Agencies and developers best practices for site planning and design review, especially near transit. Following publication, all local jurisdictions within Santa Clara County adopted the CDT. Although VTA does not have land use authority, the CDT helps cities, the county, and developers understand the land use and site design thresholds that VTA is looking for when reviewing Member Agency site plans and other planning documents.

While the best practices outlined in the CDT still hold true, it needs a refresh to incorporate a decade’s worth of advances in planning, design, and transportation. Additionally, VTA will integrate elements of the Land Use and Development Review Policy which was adopted earlier this year. This report outlines the scope of work and schedule for the update of the CDT.

DISCUSSION:

As VTA begins the process of updating the CDT, staff is seeking input from Member Agencies and other stakeholders on the initial work plan. Specifically, the update is divided into three main tasks: updating existing chapters, developing three new chapters, and creating a new, online, graphic format.

Updating Existing Chapters

Several chapters in the CDT contain elements that are now out of date. VTA will revise these elements to adhere to updated best practices. For example, when the CDT was originally published, concepts such as complete streets were not well known or practiced and Level of
Service (LOS) was still considered the best metric for intersection design. Additionally, VTA will update standards for transit facilities including lane widths.

**Developing Three New Chapters**

Three new chapters will be developed based on feedback received to date as well the latest developments in transportation planning:

1. Parking Management and Design
2. Transportation Demand Management Best Practices
3. The Role of Transit in Public Life

Subsections for each of the chapters are included in Attachment A.

**Create New Online Graphic Format**

Based on feedback VTA has received, the CDT will be published and housed online rather than in paper format. This will increase the ease of use for Member Agency staff accessing the CDT. It will also allow VTA to make minor updates as needed. New graphics will be developed to freshen the look of the CDT including diagrams, photo simulations, or other formats suitable for the online platform.

**Schedule**

The estimated time frame for developing and adopting the CDT is from fall 2019 to the end of 2020. Key milestones are:

- October 2019 - July 2020: Update existing chapters, develop new chapters
- January 2020 - September 2020: Develop new graphics
- April 2020 - December 2020: Develop website

Throughout the process, staff will be seeking input from committees, working groups, Member Agency staff and other stakeholders.

**Next Steps**

VTA will make modifications to the work scope based on feedback received from the committees and stakeholders. VTA will provide regular updates to VTA committees on the project’s progress based on the schedule listed above. We will also be reaching out directly to Member Agency staff and advocacy organizations to solicit feedback during the update.

Prepared By: Lauren Ledbetter
Memo No. 7133
Community Design and Transportation: Proposed Chapters

This lists the proposed chapters and subheadings/subsections and topics anticipated for the CDT update. Except where noted, these chapters and subsections reflect the structure of the original CDT Manual published in 2003.

Executive Summary (new to support the updated CDT)
- Introduction
- Land Use Policy
- Complete Streets Policy
- VMT Transition
- Equity

Chapter 1 Introduction to Best Practices
- Key Concepts
- Building Synergy
- Community Design and Transportation Framework
- Transit System Map (New)

Chapter 2 Best Practice Principles
- Target growth to cores, corridors, and station areas
- Intensify land use activities
- Provide a diverse mix of uses
- Design for pedestrians
- Design in context
- Focus on existing areas
- Create a multimodal transportation system
- Establish streets as places
- Integrate transit
- Manage parking

Chapter 3 Development and Design: The Building Blocks of Best Practices
- Common Vision
- Building Blocks
- Site Planning
- Building Design
- Project
- Cores and Districts
- Corridor
- Region

Chapter 4 A Multimodal Approach to Streets
- Multimodal Approach
- Multimodal Design Practices
- The Travelway
- The Pedestrian Environment
- Intersections
- Model Street Types
- Mixed-Use Street
- Commercial Street
- Double Median Boulevard
- Residential Street
• Main Street
• Business Park Street

Chapter 5 Model Places
• Typical Regional Corridor
• Neighborhood Core
• District Core
• Corridor Residential
• Typical Subdivision
• Office Park
• Retail Center
• Urban Big Box
• Neighborhood School

Chapter 6 The Role of Local Government in Best Practices
• Education and Visioning
• The General Plan
• Plan and Design
• Zoning
• Specific Plans for Districts and Corridors
• The Permitting Process
• Removing Disincentives to Best Practices
• Catalytic Projects
• Partnerships
• Maintenance

Chapter 7 Parking Management and Design (new chapter)
• Policies, a paragraph about climate change
• Requirements for downtowns, commercial areas, high density transit-oriented areas, low density urban areas, office parks, hospitals, government agencies, schools, etc.
• Case Studies

Chapter 8 Transportation Demand Management (TDM) Best Practices (new chapter)
• What is TDM?
• Solutions
• Reasonable goals, mode shift
• Education
• Technology and shared mobility, technology and its impact on land use and transportation
• Ridesharing
• Self-Driving Vehicles
• Apps
• Transit on Demand
• Bike Share and Scooters
• Use of Curb
• Best Practices

Chapter 9 Transportation and Public Life (new chapter)
• Literature review of public life planning efforts in transit supportive cities
• Strategies for integrating transportation into the public life realm
• Implementation best practices that recognize the value of public transportation as a public realm activation tool
• Case Studies
• Recommendations

Chapter 10 Implementation: Overcoming Barriers and Creating Opportunities for Change
• Building Support for Best Practices
• Flexible zoning Strategies
• Clarifying Design Expectations
• Innovative Street Design Standards
• Revising Level of Service Policy
• Rethinking Parking Requirements
• Attracting Developers to Best Practices
• Integrating Retail into Best Practice Development
• Appropriate Transit Service by Land Use (new)
• Transit Corridors, Bus/Rail (new)
• Complete Streets (new)
• Funding (new)

Guides (formerly Appendices to CDT Manual)
• Community Planning for Bus Transit
• Community Planning for Rail Transit
• Community Design for Station Access
• Development Density Recommendations
• Multimodal Street Treatments
• Multimodal Field Surveys
• Model Policy
• Accessibility Integration
• Glossary
BOARD MEMORANDUM

TO: Santa Clara Valley Transportation Authority Technical Advisory Committee

THROUGH: General Manager, Nuria I. Fernandez

FROM: Board Secretary, Elaine Baltao


FOR INFORMATION ONLY

BACKGROUND:

The Technical Advisory Committee (TAC) bylaws require that the committee elect from its membership a chairperson and a vice chairperson each year to serve as the committee leadership for the upcoming calendar year. The bylaws also provide that the chairperson and vice chairperson positions serve a one-year term and are eligible for election to successive terms. Only voting members, not alternate or ex-officio members, are eligible to serve in these positions. The elections for the TAC chairperson and vice chairperson positions are conducted during the committee’s last meeting of the calendar year (usually December), if practical.

The duties of the chairperson are to preside at all meetings of the committee and represent the committee before the Board of Directors. The duty of the vice chairperson is to perform the duties of the chairperson when the chairperson is absent. It is the responsibility of all advisory committee chairpersons and vice chairpersons to participate in periodic coordination meetings between themselves and the VTA Board chairperson. In addition, both positions are normally requested to attend a brief training and orientation session on advisory committee meeting management prior to the commencement of their terms.

DISCUSSION:

The election process for chairperson and vice chairperson is comprised of three distinct steps. The first step is appointing the nomination subcommittee. The second is presentation of the nomination subcommittee’s report. The final step is conducting elections to select the chairperson and vice chairperson. Each of these components is conducted during the committee meeting.
**Appointing the Nomination Subcommittee**

The chairperson requests volunteers to serve on the nomination subcommittee, which is typically comprised of two or three members. If there are no volunteers or an insufficient number, it is the chairperson’s prerogative to appoint committee members to serve on it. It is required that the committee vote to approve the appointment of members to the nomination subcommittee. This step normally takes place two meetings prior to conducting the elections.

The nomination subcommittee identifies members interested in serving as the chairperson or vice chairperson. This is done by soliciting nominations from members, either for themselves or other members, and is done at a time other than during the committee meeting. Additionally, it is the nomination subcommittee’s responsibility to determine that members who have been nominated are willing to serve. The nomination subcommittee may also make a recommendation as to its recommended candidate for each position.

At its October 2019 meeting, the TAC approved the appointment of members Todd Capurso and Philip Kamhi to serve on the nomination subcommittee.

**Report from the Nomination Subcommittee**

At the meeting immediately preceding the elections, the nomination subcommittee provides a verbal report to the advisory committee identifying committee members who have confirmed their willingness to serve. This establishes the initial list of candidates for the elections to be held at the next meeting. The nomination subcommittee is automatically discharged when its report is formally presented to the committee. No action is required of the committee other than to receive the report.

**Election of Chairperson and Vice Chairperson**

These elections, which are held at the bylaw-specified meeting whenever possible, are conducted for the chairperson and vice chairperson positions individually and in sequence. Immediately preceding the vote, the chairperson will ask whether there are any nominations from the floor, then close the nominating process to establish the final list of candidates for each position.

For TAC, the affirmative vote of a majority of the total authorized membership is required to elect the chairperson and vice chairperson and the term of office for both positions begins January 1 of the calendar year following the scheduled vote.

Prepared By: Board Office
Memo No. 7147
| Doc ID | Origin | Short Title                                                                 | Date  
|-------|--------|------------------------------------------------------------------------------|-------
| 6524  | Dept - Real Estate / Ron Golem | Revised VTA Transit-Oriented Development Policy | A A  
| 7053  | Division - Finance and Administration / Raj Srinath | 2016 Measure B Innovative Transit Service Models, Competitive Grant Program Draft Criteria | A A  
| 7103  | Dept - Grants and Fund Allocations / Jane Shinn | 2016 MB FY20/FY21 Budget Modifications | A A  
| 7136  | Dept - Transportation Planning / John Sighemony | 2019 CMAP Document | A A  
| 7138  | Dept - Transportation Planning / Melissa Cereda | Land Use & Transportation Working Group Adjustment | A A  
| 7156  | Dept - Grants and Fund Allocations / Jane Shinn | 2016 Measure B Update | I I  
| 7147  | Dept - Board Secretary / Michelle Oblena | 2020 TAC Leadership Election Process - Nomination Subcommittee Report | I I  
| 7133  | Dept - Transportation Planning / Scott Haywood | Community Design and Transportation Manual Update - Scope and Schedule | I I  
| 7023  | Dept - Transportation Planning / Janice Soriano | Express Bus Partnership Program Service Plan | A A  
| 7152  | Division - Planning and Programming / Amin Surani | Local Program Reserve Match for Caltrans Sustainable Planning Grant | A A  
| 7141  | Division - Planning and Programming / Amin Surani | Vehicle Registration Fee Countywide Program Cycle 3 | A A  
| 7116  | Division - Planning and Programming / Amin Surani | Vehicle Registration Fee (VRF) Annual Report | I I  
| 7117  | Division - Planning and Programming / Amin Surani | 2019 TFCA Project Status Report | I I  
| 7118  | Division - Planning and Programming / Amin Surani | Programmed Project Monitoring - Quarterly Report | I I  

Tac Work Plan
November - May 2020