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Exploring Equity Frameworks for a Cross-Jurisdictional Vehicle Miles Traveled Mitigation Program in Santa Clara County

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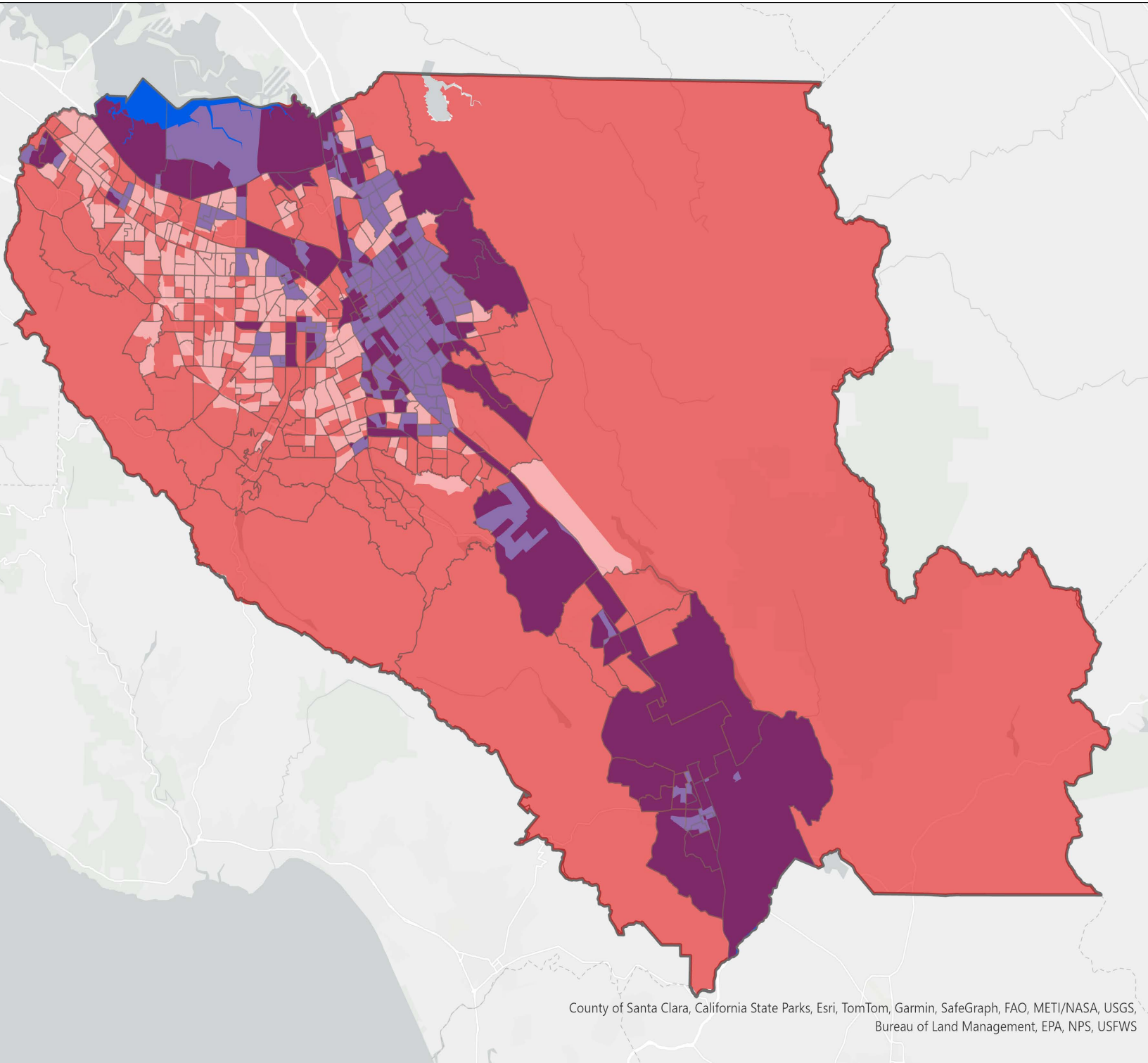
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Exploring Equity Frameworks for a Cross-Jurisdictional Vehicle Miles Traveled Mitigation Program in Santa Clara County

Serena E. Alexander, PhD Luana Chen Maxwell Belote-Broussard



County of Santa Clara, California State Parks, Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USFWS

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16. Abstract The Santa Clara Valley Transportation Authority (VTA) partnered with a Mineta Transportation Institute (MTI) research team and San José State University (SJSU) students for assistance in developing the equity framework for the agency's proposed Equitable Vehicle Miles Traveled (VMT) Mitigation Program. The goal of the program is to reduce the amount of driving generated from new developments in Santa Clara County through transportation solutions with equity and cross-jurisdictional collaboration in mind. During the Fall 2023 semester, graduate urban planning students from SJSU worked to develop policy recommendations for the program equity framework through a literature review, spatial analysis, community engagement observations, and stakeholder interviews. This report summarizes and builds upon student contributions to present a set of equity-focused recommendations for VTA to consider for program development, implementation, and evaluation. Notable strategies identified for developing the framework include defining VMT equity with local relevance, creating an accountability plan, and embedding equity into key decision-making points. Additionally, a transportation challenge frequently mentioned by stakeholders was a need for improved transit availability, frequency, reliability, and speed. Major recommendations discussed in the report include developing and adopting a localized definition of VMT equity, developing an informative and implementable accountability plan, embedding equity measures into project prioritization and evaluation processes, and prioritizing improvements to public transit. Lessons learned can help other jurisdictions develop and implement equitable VMT mitigation programs and effective community engagement processes. Additionally, the report provides an overview of the factors that go into program development, which can help readers better understand this process and identify areas where they can get involved.			
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Executive Summary

The Equitable Vehicle Miles Traveled (VMT) Mitigation Program for Santa Clara County is being developed by the Santa Clara Valley Transportation Authority (VTA) to provide a mitigation option for local agencies and developers as they implement California Senate Bill 743 (SB 743). The bill, passed in 2013, mandates a switch in metric from Level of Service (LOS) to Vehicle Miles Traveled (VMT) for transportation impact analysis of new developments under the California Environmental Quality Act (CEQA). LOS is a local measure of congestion that looks at vehicle delay at the intersection level, whereas VMT takes a more regional approach to measuring vehicle travel by calculating the number of total miles generated from driving trips. The mandate went into effect in July 2020 and its purpose is to target reduction of greenhouse gas emissions and promote multimodality with an emphasis on sustainable transportation modes. Similarly, VTA's Equitable VMT Mitigation Program for Santa Clara County seeks to reduce the amount of driving from new developments in the county and improve travel options for the community with an emphasis on cross-jurisdictional collaboration and equity.

VTA partnered with a Mineta Transportation Institute (MTI) research team and San José State University (SJSU) students to assist with the development of the program's equity framework. SJSU urban planning graduate students from the Fall 2023 cohort of the urban planning policy analysis course, URBP 236, led by Dr. Serena Alexander, contributed to four focus areas of equity analysis: a **literature review** for incorporating equity into program frameworks and design, **spatial analysis** of equity indices to identify areas for additional community engagement and potential mitigation measure selection, **community engagement observations** to assess VTA's community engagement and messaging approach, and **stakeholder interviews** with both members of the public and representatives from community-based organization (CBOs) to gather more in-depth information on community transportation needs and attitudes toward VMT mitigation measures. The student work aligned with Phase 1 of community engagement for the project.

With guidance from VTA, student groups working on the four focus areas each employed unique methods for their respective processes for policy analysis and recommendations development. The literature review team gathered and analyzed planning documents, policy reports, and research articles related to equity and VMT mitigation as well as equity in other similar and relevant programs to identify strategies for incorporating equity into program frameworks and design. The spatial analysis team used ArcGIS Pro to create maps with different equity index layers and VMT data and then conducted a qualitative analysis using the maps to identify additional equity communities that VTA should consider for community engagement during program development and for mitigation measure selection in the future. Another goal of the spatial analysis was to test commonly used equity indices to ensure comprehensive identification of disadvantaged communities across Santa Clara County. The community engagement observations team first completed a literature review to identify best practices for an equitable community engagement approach and then attended select community engagement events for the program and assessed the VTA project team's community engagement approach based on the identified strategies. The

two student teams conducting stakeholder interviews completed interviews with community members and Community Based Organizations (CBOs) using interview guides provided by VTA and then identified key themes in the responses. The entire class also provided feedback on the communication and messaging of public-facing project materials. The five student groups each produced a policy report with recommendations based on their findings and presented their work to staff from VTA and other members of the project team.

The research team, led by Dr. Serena Alexander, synthesized the student reports and built upon the findings to develop a set of recommendations for the VTA project team to consider in the development of the program framework. Contributions of the research team included reviewing additional articles to supplement the best practices for equitable program development and community engagement, refining student-created maps and creating additional maps for the spatial analysis of equity indices, and integrating the stakeholder interview findings from the two student groups that worked on this focus area. This report details the methods, findings, and recommendations that resulted from the work of the SJSU students and MTI research team.

Through the literature review, best practices for developing an equity framework within the program were determined to include defining program equity in a way that is locally relevant, embedding equity into the project selection process and program evaluation criteria, and developing an informative and implementable accountability plan. From the spatial analysis, additional areas to consider for community engagement and VMT mitigation measure selection were identified in northern Sunnyvale, Morgan Hill, and near Gilroy (see Figure 27 for geographic context). Community engagement observations revealed that the VTA project team's approach to public meetings, focus groups, and surveys was excellent, but the public engagement and program informational materials could be simplified for non-technical audiences and the VTA project team could better leverage social media to foster dialogue with the community. The stakeholder interview responses revealed that improved transit service and enhanced feelings of safety for alternative travel modes are top transportation priorities and needs identified by the community. The interview responses also revealed that most community members are conditionally supportive of development contributions to VMT mitigation measures and main concerns are transparency and accountability in the project selection and funding processes. These interview findings align with the literature and VTA's current efforts to improve communication with a broad range of stakeholders.

Key recommendations discussed in the report include developing and adopting a localized definition of VMT equity, developing an informative and implementable accountability plan, embedding equity into the project prioritization and evaluation metrics, and investing in public transit improvements. Establishing a localized definition of VMT equity that aligns with community needs and priorities is a best practice identified in the literature review, and the spatial analysis findings and community input from public engagement and stakeholder interviews can be used to aid in developing the definition. Developing an accountability plan promotes good governance, can strengthen the relationships between the agency, stakeholders, and the

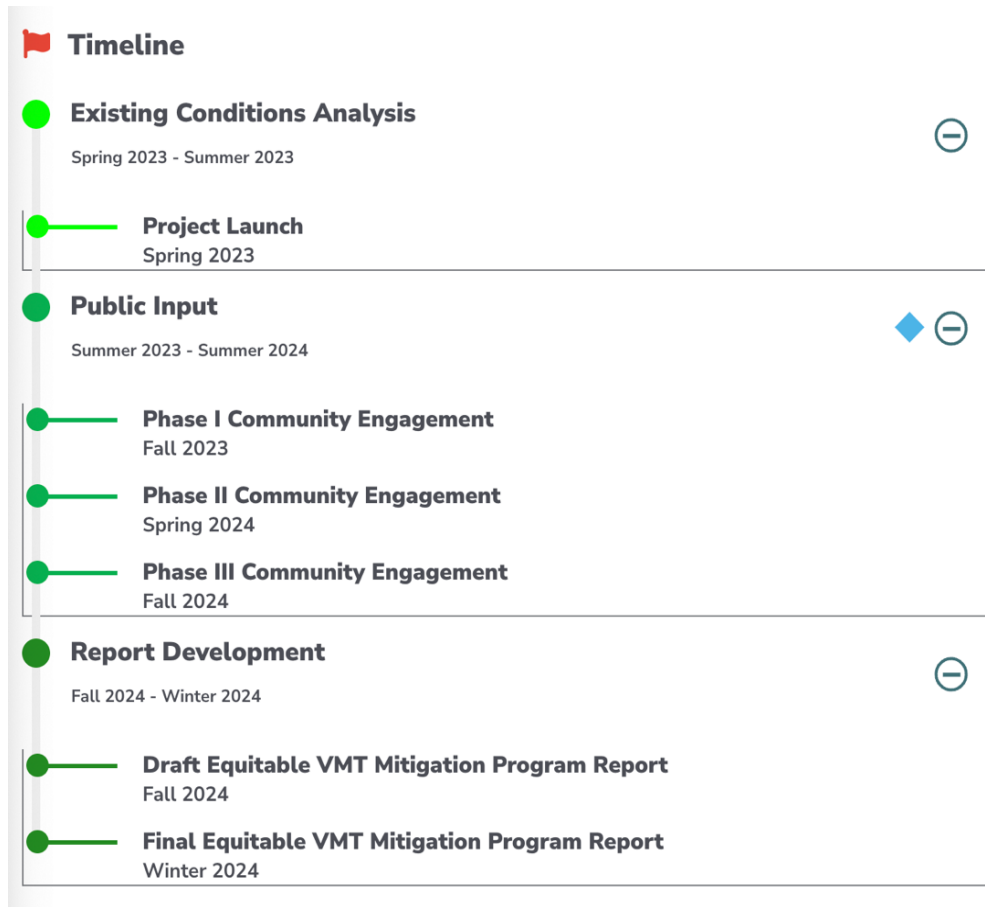
community, and may also protect equity within the program. Embedding equity at key decision-making points, such as the project prioritization process and evaluation metrics for the program can help ensure that equity remains a commitment throughout program design, implementation, and evaluation. Lastly, a major transportation need identified by the community is improved connectivity, frequency, reliability, and speed of public transportation. These recommendations together can help advance the equity framework of the proposed Equitable VMT Mitigation Program for Santa Clara County.

1. Introduction

Following the passage of California Senate Bill 743 (SB 743) in 2013, government entities were required to replace level of service (LOS) with vehicle miles traveled (VMT) as the standard metric in transportation impact analysis for new developments under the California Environmental Quality Act (CEQA). LOS is a localized measure of congestion that looks at vehicle delay at the intersection level whereas VMT measures vehicle travel in additional miles driven that a proposed project would create. Goals of SB 743 include targeting greenhouse gas emissions and promoting the development of a multimodal transportation system with an emphasis on sustainable modes. The mandated switch from LOS to VMT went into effect on July 1, 2020.

Accordingly, the Santa Clara Valley Transportation Authority (VTA) is developing the framework for an Equitable VMT Mitigation Program for Santa Clara County. VTA is an independent special district that provides bus, light rail, and paratransit services and serves as the congestion management agency for Santa Clara County, responsible for countywide transportation planning, the design and construction of specific highway, pedestrian, and bicycle improvement projects, as well as the promotion of transit-oriented development. In 2022, VTA was awarded a Caltrans Sustainable Transportation Planning grant to develop the program framework for the Equitable VMT Mitigation Program. The goal of the program is to mitigate VMT generated from new development projects with emphases on promoting cross-jurisdictional coordination, identifying ways to equitably address off-site VMT mitigation, and improving multimodal transportation for areas most in need. The project team includes VTA staff, a Consultant Team that includes two Community-Based Organizations (CBOs), and researchers and students from the Mineta Transportation Institute (MTI) and San José State University (SJSU).¹ The project kicked off in Spring 2023, includes three phases of community engagement between Fall 2023 and Fall 2024, and is expected to conclude in Winter 2024. The project timeline is shown in Figure 1.

Figure 1. Equitable VMT Mitigation Program Project Timeline



The VTA project team is exploring the use of development contributions towards VMT mitigation measures, potentially in the form of a VMT bank or exchange program to fund off-site VMT mitigation projects. A VMT bank allows a developer to contribute money to a central fund that would later be used to implement VMT mitigation projects. A VMT exchange allows a developer to select a project to fund or directly implement from a pre-approved list of jurisdiction-wide VMT mitigation projects. VTA is developing a framework that will include guidance for addressing equity challenges in off-site VMT mitigation.

Because SB 743 went into effect relatively recently and the switch from LOS to VMT is a newer practice, there are limited examples and literature to reference for best practices in equitable off-site VMT mitigation. Thus, VTA partnered with SJSU and MTI for assistance in developing the equity framework of the Equitable VMT Mitigation Program through a literature review, spatial analysis, community engagement observations, and stakeholder interviews. Goals of the SJSU/MTI study included identifying best practices for incorporating equity into a program and the community engagement approach, identifying additional equity areas to focus community engagement, and gathering in-depth community input on transportation needs and VMT mitigation measures. This report summarizes and builds upon student findings to offer recommendations to VTA for equitable program development.

2. Methodology

For approximately a year leading up to SJSU student involvement in the project, Dr. Hilary Nixon and Dr. Serena Alexander met with VTA staff members leading this project to develop a plan to guide student and MTI research team involvement. These meetings laid the groundwork for how VTA's partnership with SJSU and MTI would unfold during and immediately following Phase 1 of community engagement.

During the Fall 2023 semester, a group of graduate urban and regional planning students from SJSU led by Dr. Alexander, and with logistical support from VTA and the transportation consulting firm Fehr & Peers, reviewed literature, collected data, and conducted observations to help develop the equity framework for the Equitable VMT Mitigation Program. At the beginning of the semester, VTA staff presented a project overview to students. Students met with VTA staff throughout the semester for project updates and support, and presented final reports and presentations on their contributions to VTA staff and a subset of the project team at the end of the semester. After the semester, Dr. Alexander's research team used information collected by students to examine equity considerations related to VMT mitigation in Santa Clara County and to develop a set of recommendations for VTA. The students focused on different areas of equity through:

2.1 A Literature Review of Equity in Mitigation Programs

Following initial guidelines and literature recommendations provided by VTA, students conducted a literature review to identify strategies and best practices for incorporating equity into the framework and design of a VMT mitigation program. Because literature on equity frameworks for VMT mitigation programs is limited, VTA instructed students to look to similar programs for relevant information on practices for incorporating equity into program frameworks and design, such as habitat conservation plans, wetlands/water quality mitigation programs, and emissions cap-and-trade programs in California and elsewhere in the United States.

To build upon VTA's initial literature recommendations, students used online research databases, including Google Scholar and the SJSU Onesearch online library database, to identify additional relevant research articles and plans. Terms used for each search were recorded as a reference to avoid repeat and duplicative search results. Including VTA's recommended starting documents, students compiled a total of 18 documents for the literature review. This included a total of five planning documents from existing and emerging programs and 13 research articles.

Students summarized the literature and conducted an analysis to identify key themes and best practices with a focus on practices for embedding equity into the framework and design of programs. Students explored the following questions through the literature review:

1. How is equity defined and assessed in VMT mitigation and other relevant programs?
2. What are best practices for equitable program frameworks?

Analysis of planning documents focused on identifying the program’s purpose, how equity was defined, strategies used for embedding equity into the program framework and design, and considerations and impacts on Equity Priority Communities (EPCs). Analysis of research articles focused on identifying main research questions, key methods and evaluation criteria, key findings, and conclusions. Information from the literature review was organized into a program comparison table for the five planning documents and a literature review matrix for the research articles. After the semester, the research team analyzed a few additional articles to supplement the literature review completed by the students.

2.2 Spatial Analysis of Equity Community Areas

As a starting point, VTA identified the Metropolitan Transportation Commission (MTC) EPCs and the Alviso neighborhood in north San José as equity communities* to focus on—the latter of which was identified through a preliminary analysis of other equity indices including Assembly Bill 1550 (AB 1550), Senate Bill 535 (SB 535), the Healthy Places Index (HPI), the Caltrans Transportation Equity Index (EQI), and the Justice40 screening tool. A summary of each equity index is included in Table 1, and further information about the indices is included in the Findings section of this report. During the semester, students conducted a more in-depth analysis of four of the alternative equity indices to identify other areas VTA should consider for community engagement during this project, and project prioritization in a potential future VMT mitigation program.

The MTC captures a variety of social and economic demographic factors in defining the EPCs and the alternative indices expand on this by adding considerations of equity in terms of environmental impact, transportation impacts, health equity, and access to destinations. These additional considerations are important for informing the project approach, particularly when considering VMT mitigation solutions related to land use and increasing access through alternative travel modes.

*In this report, the term ‘equity communities’ is used to refer to areas identified by the different equity indices as areas with residents experiencing inequities and/or burdens. This is distinct from the MTC’s coined term ‘Equity Priority Communities.’

Table 1. Summaries of the Different Equity Indices

Equity Index	Focus	Factors
MTC EPCs ²	Various social and economic demographic factors	Race/Ethnicity Income English Proficiency Age Zero-Vehicle households Single-parent families Disability Rent burden
AB 1550 ³	Low-Income	Income
SB 535 ⁴	Environmental impacts	Pollution burden (CalEnviroScreen 4.0) 2017 DAC (disadvantaged communities) designation Lands under the control of federally recognized tribes
HPI ⁵	Health equity focus, but also includes various social and economic demographic factors	25 variables in 8 domains: Economics Education Health care access Housing Neighborhood conditions Pollution/clean environment Social Transportation
EQI ⁶	Transportation Impacts	Income Race/Ethnicity Traffic exposure (emissions, crashes) Access to destinations
Justice40 ⁷	Various environmental and socioeconomic factors, in addition to transportation impacts	Climate change Energy Health Housing Legacy pollution Transportation Water and wastewater Workforce development Lands under the control of federally recognized tribes

Following guidelines provided by VTA, the students and the research team used ArcGIS Pro to map areas identified by the different indices as equity communities in Santa Clara County along with low- and high-VMT areas. The basemap layer and VMT datasets were obtained from VTA. The VMT data was produced from the VTA travel demand model and represents Total VMT Per Service Population, which is a measure commonly used in SB 743 VMT analysis. Low-VMT areas were defined as zones with Total VMT Per Service Population below 85% of the current

areawide average, and high-VMT areas were defined as zones with Total VMT Per Service Population above 85% of the current areawide average.

During the semester, students intersected the VMT data with data for the MTC EPCs, AB 1550 low-income communities, SB 535 pollution-burdened communities, the HPI equity communities, and the EQI transportation impact-burdened communities. Students also created a map showing the combined equity areas for MTC EPCs, AB 1550, SB 535, the HPI, and the EQI intersected with low- and high-VMT areas. A detailed methodology for the map-making process is included in **Appendix A**.

Datasets for the various equity indices were obtained from MTC, the California Air Resources Board, the California Office of Environmental Health Hazard Assessment, the Public Health Alliance of Southern California, and Caltrans. Students conducted qualitative analysis with the resulting maps to identify additional areas of consideration for VTA's community engagement and for VMT mitigation solutions. This involved looking at each alternative map in comparison to the EPCs to identify areas that are consistently identified as disadvantaged or burdened by all indices, to identify equity communities that deviate from the MTC EPCs, and then comparing the alternative maps to identify other areas consistently identified by the alternative indices.

After the semester, the research team refined the six maps created by the students and completed additional mapping using the Justice40 screening tool, which also identifies transportation impact-burdened communities. The research team also used a different technique of layering the equity indices to highlight areas repeatedly identified as equity communities by different dimensions of equity. The dataset for the Justice40 screening tool was obtained from the federal Council on Environmental Quality. When refining the combined maps, the research team used either the Justice40 data or the EQI data in place of Justice40, as these indices both represent transportation impacts. The research team created four additional maps and also continued and refined the qualitative analysis of the student-created maps using the same method used by the students.

2.3 Community Engagement Observations and Feedback

VTA has planned three phases of community engagement for the current Equitable VMT Mitigation project.

- Phase 1 of community engagement, which focused on listening and summarizing transportation challenges and needs, coincided with the Fall 2023 semester and consisted of one virtual community meeting, five tabling events, four virtual focus group discussions, and a community travel survey administered both in-person at the tabling events and online.
- Phase 2 is scheduled for Spring 2024 and will focus on filtering and refining feedback and responses from Phase 1, and involving stakeholders and community members in decisions about the VMT Mitigation Program structure, administration, and project prioritization.

- Phase 3 is scheduled for Fall 2024 and will focus on defining and confirming the program framework and how it would help address the community transportation challenges and needs identified in Phase 1.

During Phase 1, a group of students attended and observed several VTA community engagement events for the project to provide feedback on VTA’s community engagement efforts. Throughout the SJSU/MTI project involvement period, the research team participated in several Technical Advisory Group (TAG) meetings and most recently presented on report highlights to the group on February 12, 2024.

To begin the process of reviewing VTA’s community engagement approach and methods, students reviewed existing literature on best practices for equitable community engagement approaches to craft their evaluation criteria. It was determined that best practices for fostering an inclusive and diversified community engagement approach involve utilizing multiple communication channels, employing clear and accessible language, conducting surveys and focus groups, holding public meetings, and leveraging social media. Brief descriptions for each best practice are included in Table 2. The research team supplemented student contributions by additionally analyzing literature on equitable community engagement practices in transportation planning to gather recommendations for VTA.

Table 2. Summary of Best Practices for Equitable Community Engagement

Best Practices	Description
Multi-Channel Communication Approach	People consume information through various mediums and may have preferences or greater access to one medium as opposed to another. ⁸
Clear and Accessible Language	The solution to dismantling knowledge barriers is to use plain language—it is not enough for the plans to be accessible, they also need to be relatable. By using plain language, planners can bridge the gap between technical jargon and public understanding. ⁹
Surveys and Focus Groups	Surveys and focus groups are bridges that connect the community’s lived experiences with the planning process. ¹⁰
Public Meetings	Public meetings should be seen as dynamic forums for exchange rather than one-way information sessions. ¹¹
Leveraging Social Media	Use of digital platforms enables planners to share information about plans and updates, and provides a channel through which the public can provide feedback. ¹²

Between September and November 2023, a group of students attended three in-person tabling pop-up events, one virtual community workshop focused on gathering feedback from the general public, and a focus group session focused on gathering feedback from CBOs. At each event, the students took note of VTA’s engagement methods to later provide a score for how well VTA’s current practices made use of the best practices outlined above and to identify areas for

improvement. Details for each student-attended community engagement event are provided in Table 3.

Table 3. Community Engagement Events Attended by Students

Date	Event Name	Location	Purpose of Event
9/27/2023	Valley Transportation Plan (VTP) 2050 Community Open House	Roosevelt Community Center in San José, CA	Engaging and informing the public at a VTA community event.
10/14/2023	Day on the Bay Festival	Alviso Marina County Park in San José, CA	Engaging the public at a family-friendly community event.
10/16/2023	Virtual Community Meeting #1	Virtual via Zoom	Engaging and informing the public in a remote, workshop-style format.
10/28/2023	La Ofrenda Festival	Gilroy, CA	Engaging the public at a family-friendly community event.
11/14/2023 and 11/16/2023	CBO Focus Group Session	Virtual via Zoom	Engaging CBOs through a virtual focus group session

Earlier in the semester, students also provided feedback on VTA’s community engagement and public-facing materials for the project in an effort to simplify messaging and communication of the program information. Program materials analyzed by the students included the project website, project videos, display boards for tabling events, and diagrams and flowcharts to be used at virtual community meetings and focus group discussions. Collectively, student feedback focused on four main areas: the project website, graphics and media, accessibility of materials, and survey and data collection.

2.4 Stakeholder Interviews with Community Members and Community-Based Organizations

During the first phase of community engagement, VTA administered a community travel survey to gather information on community travel behaviors. The survey, which was available in eleven languages, was primarily administered online as a web-based survey between early October and December 2023 and was also offered in paper at in-person events. A copy of the English version of the web-based survey is included in **Appendix B**. Information was collected on respondents’ demographics, travel habits, interest in VMT mitigation measures, and transportation needs, challenges, and preferences. Collecting this information was an important first step for understanding key transportation needs of the community and to help inform and shape later stages of community engagement. Approximately 375 survey responses were recorded.

To expand upon VTA’s community travel survey and gather more in-depth insight into community attitudes toward VMT mitigation for new developments, two student groups

conducted interviews with community members and representatives from community-based organizations (CBOs). VTA provided a list of CBOs with connections to issues in land use, transportation, and equity as a start. Students also reached out to contacts affiliated with SJSU and the Mineta Transportation Institute and asked interviewees for recommendations for additional organizations to interview. The group of CBOs interviewed covered a broad range of focus areas including transportation, housing, sustainability, land use, disaster relief, and food and farming. Community members interviewed by the students were members of the general public who live, work, and/or study in Santa Clara County. Students conducted interviews in October and November 2023, mainly via Zoom with a few taking place in person, using interview guides provided by VTA. The interview guides listing the questions guiding the stakeholder interviews are included in **Appendix C**.

Students contacted 13 CBOs and interviewed representatives of seven different CBOs. Altogether, students conducted eight interviews with CBO representatives[†] and twelve interviews with community members for a total of 20 interviews. Stakeholder organization interviews were lengthier, with the interviews including questions regarding the CBO's purpose, the transportation needs of the community, reactions to new development projects, and thoughts regarding development projects contributing to VMT mitigation measures, as well as perceptions of VTA's role in such programs. Interviews for community members were comparatively less in-depth and focused on the interviewee's travel habits, transportation concerns and needs, reactions to new development projects, and thoughts regarding development projects contributing to VMT mitigation measures. Students took detailed notes for each interview, recording where possible, and analyzed them thematically using both deductive and inductive methods. Details for each CBO interviewed are provided in Table 4.

[†] The two student groups each interviewed a different representative from the Silicon Valley Bicycle Coalition.

Table 4. Community-Based Organizations Interviewed by Students

Organization Name	Focus	Area(s) of Operation
Collaborating Agencies' Disaster Relief Efforts (CADRE)	Disaster Relief	Santa Clara County
Mountain View Coalition for Sustainable Planning (MVCSP)	Sustainability	Mountain View
Mountain View YIMBY	Housing	Mountain View
RYDE	Transportation	Santa Clara County
Silicon Valley Bicycle Coalition (SVBC) – <i>interviewed twice</i>	Transportation	Santa Clara County and San Mateo County
TransForm	Housing, Transit, Land Use	San Francisco Bay Area, State of California
Veggielution	Food and Farming, Small Business Support	East San Jose

3. Findings

3.1 Literature Review of Equity in VMT Mitigation Programs

Students referenced a limited number of established and emerging VMT Mitigation programs and plans as well as plans related to other relevant program types, such as environmental resources, to identify key strategies and best practices for developing a program equity framework. Key takeaways from the plans, gathered by students during the semester, are summarized in Table 5, and best practices identified from the overall review of the literature are discussed in further detail in this section.

Table 5. Key Takeaways from Review of Planning Documents

Plan Name	Key Takeaway(s) for Equity in Existing and Emerging Programs
SCAG/LA DOT/ VMT Mitigation Program Pilot ¹³ LA Metro Vehicle Miles Traveled Mitigation Program ¹⁴	<ul style="list-style-type: none"> • Establish equity-driven mitigation action criteria. • The LA Metro Equity & Planning Tool (EPET) was developed to guide program development through an equity-focused evaluation. The tool was used to identify racial, socioeconomic, and transportation disparities in Los Angeles County and the root causes of those disparities, as well as to help staff develop a more equitable program.
<u>Contra Costa County VMT Mitigation Program Framework</u> ¹⁵	<ul style="list-style-type: none"> • Include equity as criteria for the evaluation of potential programs. • Create guidelines to determine how equity factors would be included within the program. • Identify EPCs.
<u>Santa Clara Valley Habitat Plan</u> ¹⁶	<ul style="list-style-type: none"> • Develop a stakeholder group that represents a whole variety of interests and engages them in the planning process. • Host public community meetings in partnership with local partners at key project milestones. • Fulfill the requirements for public involvement according to CEQA/NEPA.
<u>Ventura County Vehicle Miles Traveled Adaptive Mitigation Program</u> ¹⁷	<ul style="list-style-type: none"> • Give guidance to CEQA lead agencies and project applicants to avoid CEQA VMT impact by identifying low VMT areas for development, providing a recommended analysis process and set of standards, addressing reduction strategies and effectiveness, and adapting long-term project mitigation program options. • Seek investment in disadvantaged communities as defined by the California Office of Environmental Health Hazard Assessment.
<u>En Movimiento: A Transportation Plan for East San Jose</u> ¹⁸	<ul style="list-style-type: none"> • Develop prioritization and evaluation metrics that reflect community goals and input, and enable transparent and consistent processes. • Develop minimum criteria for engagement to ensure effective reach, accessibility, and user-friendliness/legibility.

3.1.1 Robust stakeholder engagement and meaningful community involvement are key to an equitable engagement process that is reflective of community needs and priorities.

Nearly all of the literature reviewed identified stakeholder engagement and community involvement as important components of the planning process. A best practice identified is to incorporate equity considerations at the different stages of program design and implementation. Specifically regarding community engagement for VMT banks and exchanges, a 2022 report by the Berkeley Center for Law, Energy, & the Environment (CLEE) suggested, “the administrative entity should commit to conducting early and regular community engagement, following best practices for gathering meaningful community feedback.”¹⁹ For this program, equity considerations and intentional engagement are key elements of the project development process. As such, VTA has already made excellent progress in the community engagement process as the project team includes two CBOs, stakeholder interviews with additional CBO representatives were conducted with the help of SJSU students, and there are three planned stages of community engagement stretching over the course of a year.

3.1.2 Acknowledge inequity and work to develop a localized definition of VMT equity that reflects community needs and priorities.

An analysis of the literature shows that developing a unique or localized definition of equity is key for enhancing program equity and effectiveness. Awareness of multiple dimensions of equity, including the socioeconomic, geographic, demographic, environmental, and transportation challenges in the project area, can contribute to the advancement of local equity goals and accounts for the intersectionality of equity challenges.^{20,21} Strategies for developing a localized definition of equity include “learning and understanding the histories and experiences of underrepresented communities,”²² involving the community in the process of defining standards for identifying areas in need of transportation access solutions,²³ and “us[ing] spatial data to determine which areas should be prioritized for investment or other specific program focus.”²⁴ Spatial analysis for this project includes consideration of multiple dimensions of equity as well as mapping and analysis of inequities and burdens experienced across the county. The spatial analysis findings are included in this report and can be referenced to better understand community needs and burdens in order to develop a localized definition of VMT equity for the program framework.

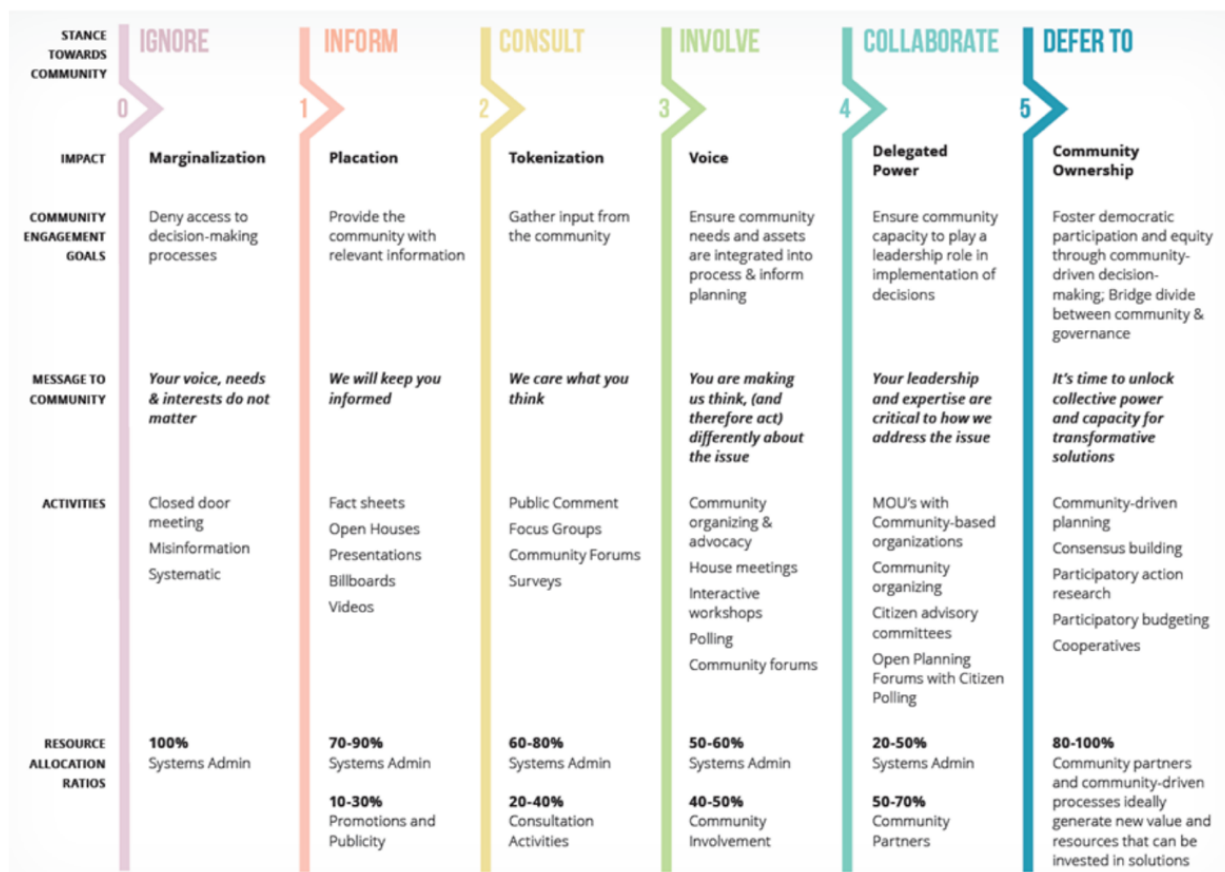
Additionally, as equity can be context-dependent, it is also critical to establish a shared understanding among stakeholders of what equity is within the context of a given program. The next phase of community engagement, which will encompass filtering and refining community feedback, presents a great opportunity for VTA to work with stakeholders to establish a clear and shared definition of VMT equity.

3.1.3 Develop an informative and implementable accountability plan.

Developing an informative and implementable accountability plan protects equity in the program implementation process, builds trust between the agency and the public, and can mitigate

transparency concerns. In the En Movimiento plan, staff committed to developing project prioritization and evaluation metrics that reflected community goals and enabled transparent and consistent processes. The City of San José was able to ascertain community goals and priorities through an extensive, community-driven engagement process. As part of the plan implementation framework for En Movimiento, city staff employed a process-oriented approach for engagement informed by the Spectrum of Community Engagement to Ownership tool developed by Facilitating Power (see Figure 2) to ensure sustained and inclusive community engagement. The concept of the tool is that increased community ownership increases the city’s accountability to the community and it can be used to assess the degree of community involvement in the planning process.²⁵

Figure 2. The Spectrum of Community Engagement to Ownership.²⁶



Additional guidance on developing an accountability plan specific to VMT mitigation was identified in the literature. A 2021 MTI report on Safeguarding Equity in Off-Site VMT Mitigation, co-authored by Dr. Serena Alexander, notes that “without reliable and effective evaluation tools, local governments cannot establish transparency and accountability in reducing VMT” and suggests using “a VMT evaluation tool that measures the effectiveness of potential mitigation strategies, which consider both project-level, street-scale factors, such as microscale

aspects of urban design, but also regional-level factors such as land use and transportation patterns, in addition to considering equity indicators.”²⁷

Additionally, the Berkeley CLEE report suggests, “monitoring and accountability should include not only internal tracking and accounting mechanisms but also public reporting on fund management and project implementation, to provide lead agencies and developers with information on mitigation actions and the public with information on program benefits and expenditure of funds.”²⁸ The report also recommends that design and management of monitoring programs be undertaken by the VMT mitigation bank or exchange, or a designated third party, instead of lead agencies or developers.

3.1.4 Embed equity into the project prioritization criteria and evaluation metrics.

Building equity considerations into the project prioritization criteria and evaluation metrics for the program ensures that this value remains present throughout the processes of program development and implementation. These equity measures should be multi-dimensional and, beyond mitigating harm, should focus on improving transportation conditions and community engagement participation for underserved groups.²⁹ Additionally, to meaningfully address community transportation needs, particularly those of underserved residents, a key element of equity in the project implementation stage will be tracking progress over time to determine whether and to what extent community needs are being met through the program.³⁰

At LA Metro, the in-progress VMT Mitigation Program and use of the agency’s Equity Planning Evaluation Tool (EPET) outlines strategies including establishing equity-driven mitigation action criteria. The EPET tool helps identify racial, socioeconomic, and transportation disparities in Los Angeles County, the root causes of these disparities, and, in this application, is helping staff to develop a more equitable VMT mitigation program. An element of the EPET tool is to plan for equitable outcomes; the tool challenges developers of the program to consider questions of how proposed actions ensure equitable outcomes and reduce negative impacts on historically marginalized communities.³¹

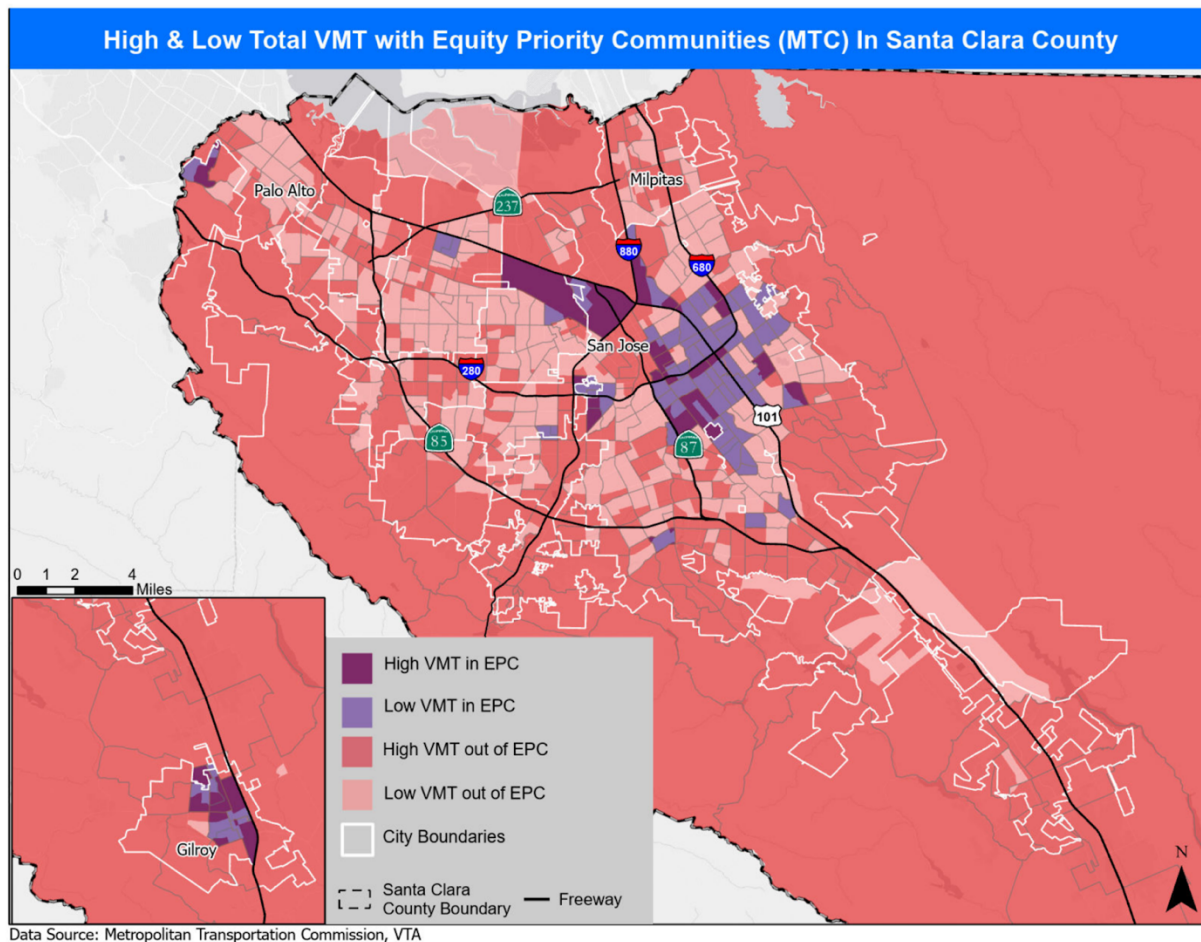
The Contra Costa County VMT Mitigation Program framework includes equity as a criterion for the evaluation of potential programs. As part of the program selection of mitigation actions and distribution of funds, “CCTA and the program advisory committee would set guidelines for how equity factors would be included,”³² and CCTA proposed using a ‘Mobility On Demand’ or MOD app that would offer higher incentives for users located in EPCs to participate in VMT reduction. Including equity considerations early on in the program development as part of an intentional process is a great approach for incorporating equity at key decision-making points. These emerging plans can provide a helpful frame of reference for VTA to develop their own tools and strategies for building equity into the framework and design of the Equitable VMT Mitigation Program.

3.2 Spatial Analysis of Equity Community Areas

Students and the MTI research team created a total of 10 maps: one map each for the six different equity indices intersected with low- and high-VMT areas, two combination maps showing the MTC EPCs, AB 1550, SB 535, and HPI combined with either the Caltrans EQI or Justice40 and intersected with low- and high-VMT areas, and two combination maps showing the MTC EPCs, AB 1550, SB 535, and HPI layered together with either the Caltrans EQI or Justice40 without the VMT layer. From the qualitative analysis, which entailed comparing and contrasting the maps, students identified a few equity communities not captured by the MTC EPCs and noted broader observations regarding pollution and transportation-impact-burdened, low-VMT areas.

3.2.1 MTC EPCs

Figure 3. Low and High-VMT Areas Mapped with MTC EPCs.



Created by Maxwell Belote-Broussard on February 23, 2024, with contributions from Gil Navarrete.

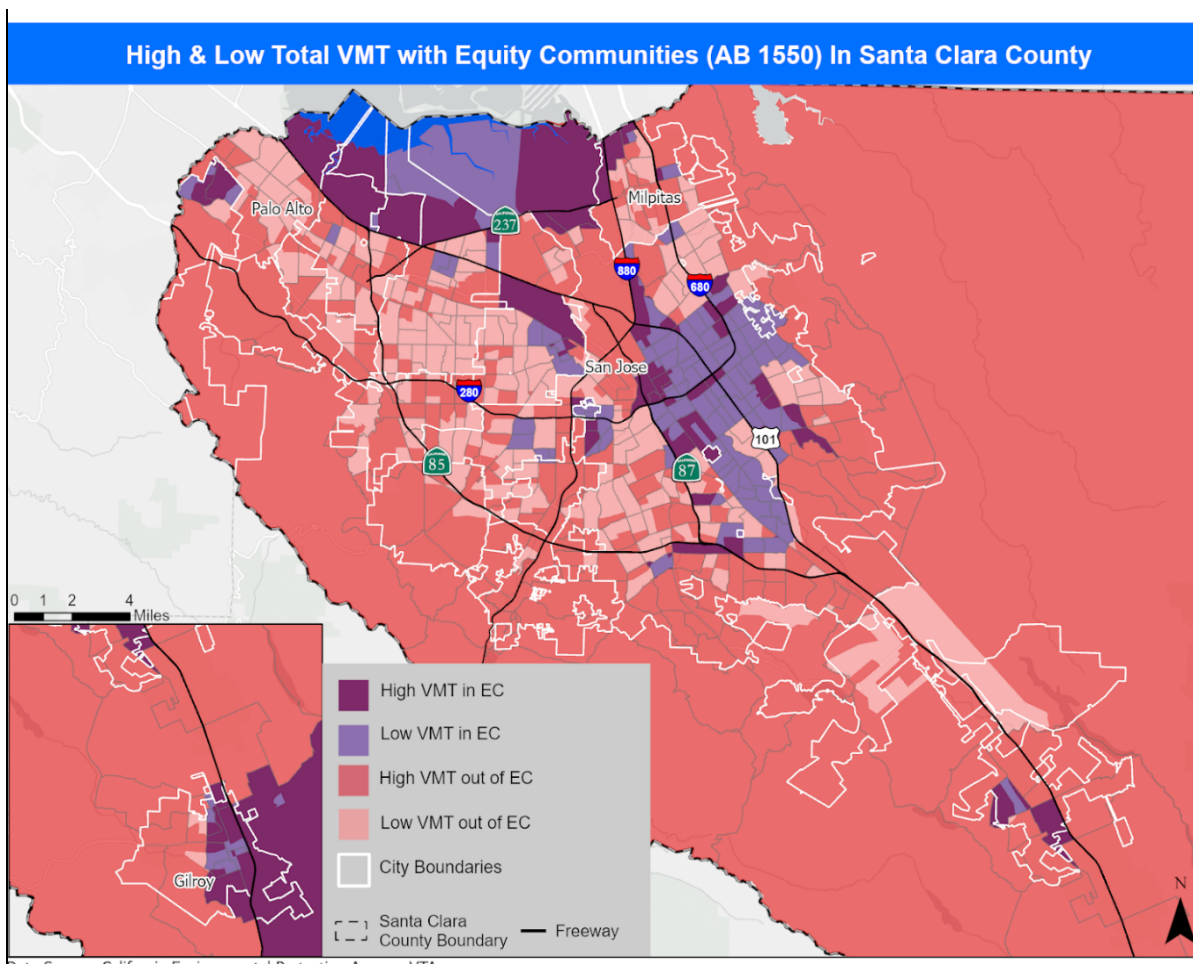
MTC EPCs are census tracts that exceed threshold values for different combinations of eight social and economic demographic variables. These include (1) people of color (70% threshold), (2) low-income (28% threshold), (3) limited English proficiency (12% threshold), (4) seniors 75 years and over (8% threshold), (5) zero-vehicle households (15% threshold), (6) single-parent families

(18% threshold), (7) people with a disability (12% threshold), and (8) rent-burdened households (14% threshold). If a census tract exceeds threshold values for low-income and people of color variables *or* exceeds the threshold values for low-income and three or more of the latter six variables, it is considered an EPC.³³ The MTC EPCs are a good baseline for determining equity communities as they consider a broad range of factors.

Figure 3 presents the MTC EPCs overlapped with low- and high-VMT areas for Santa Clara County. A majority of the MTC EPCs are clustered in San José, particularly in Central and East San José neighborhoods and in many areas adjacent to major highway interchanges. A large cluster of EPCs also exists in Gilroy. Smaller clusters and isolated EPCs are also found near Stanford University, Sunnyvale, the City of Santa Clara, and in the southern areas of San José closer to State Route 85 (SR 85). The MTC EPCs exist in a mix of low- and high-VMT areas.

3.2.2 AB 1550

Figure 4. Low and High-VMT Areas Mapped with AB 1550 Low-Income Communities



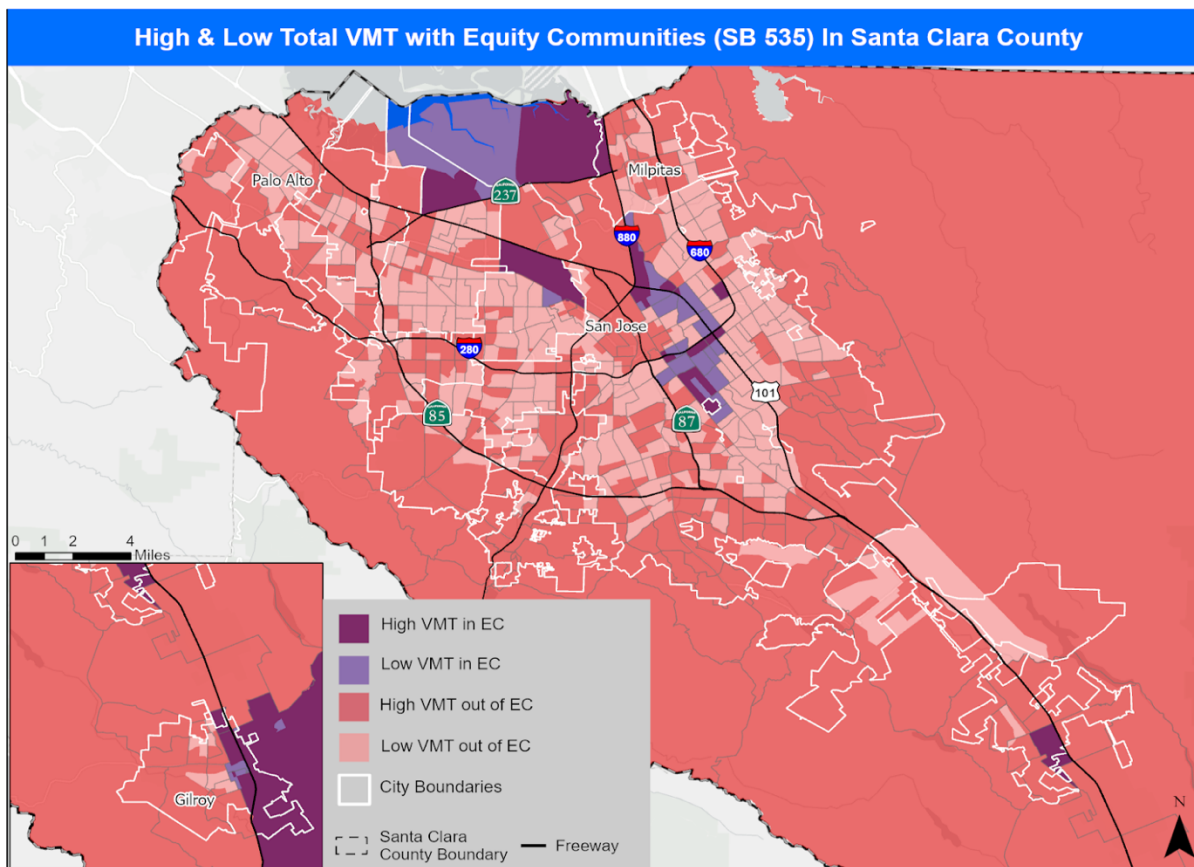
Created by Maxwell Belote-Broussard on March 7, 2024, with contributions from Gil Navarrete.

AB 1550 focuses on income and defines priority populations as census tracts and households that fall at or below 80 percent of the statewide median income or below the threshold designated as low-income by the California Department of Housing and Community Development’s Revised 2021 State Income Limits.³⁴

Figure 4 presents the AB 1550 low-income communities overlapped with high- and low-VMT areas for Santa Clara County. As AB 1550 is mostly a subset of the MTC EPCs, there is quite a bit of overlap in the areas identified as low-income, particularly for Central and East San José, a few tracts in West San José adjacent to Interstate 280 (I-280), and in Gilroy. Additional low-income areas identified by this index include areas north of SR 237 including the Alviso neighborhood of San José (which was included in VTA’s starting-point definition of equity communities along with MTC EPCs), a few tracts in Milpitas along Interstate 680 (I-680), additional tracts near the US Highway 101 (US 101) and Interstate 880 (I-880), additional tracts in Central and East San José along US 101, a few tracts in San José by the interchange or SR 85 and State Route 87 (SR 87), a few tracts in Morgan Hill, and a large unincorporated area outside of Gilroy.

3.2.3 SB 535

Figure 5. Low and High-VMT Areas Mapped with SB 535 Pollution Burdened Communities



Data Source: SB 535 Disadvantaged Communities, California Office of Environmental Health Hazard Assessment, VTA

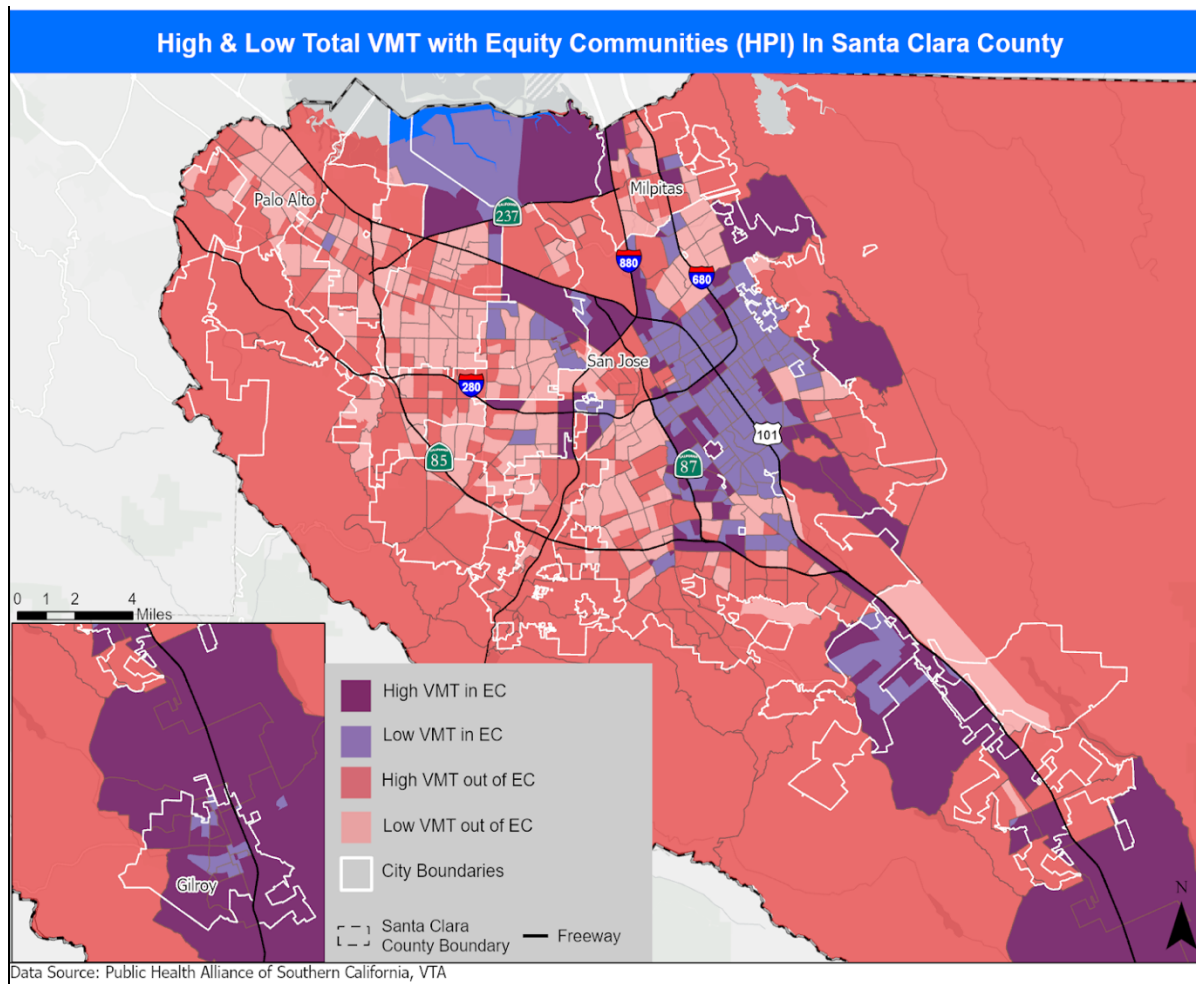
Created by Maxwell Belote-Broussard on March 7, 2024.

SB 535 priority communities are also mostly a subset of AB 1550 and the MTC EPCs. They focus on pollution burden and use CalEnviroScreen scores as the main factor in defining a census tract as pollution burdened. CalEnviroScreen, developed by the California Environmental Protection Agency's (CalEPA) Office of Environmental Health Hazard Assessment and currently released as version 4.0, is a tool to help identify communities that are disproportionately burdened by multiple sources of pollution. Under SB 535, CalEPA identified communities to prioritize for investments funded by the State Cap-and-Trade program to improve public health, quality of life, and economic opportunities in the identified communities while reducing pollution.³⁵ Communities identified for priority investments are the following: the 25% highest scoring census tracts in CalEnviroScreen 4.0, census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps but receiving the highest 5% of CalEnviroScreen 4.0 cumulative pollution burden scores, census tracts identified in the 2017 DAC (disadvantaged communities) designation, and lands under the control of federally recognized tribes.³⁶

Figure 5 presents the SB 535 pollution-burdened communities overlapped with low- and high-VMT areas for Santa Clara County. Since SB 535 is mostly a subset of AB 1550, there is much overlap in equity communities for the two indices as well as with the MTC EPCs. Some of the non-EPC areas identified by SB 535 as equity communities are likewise identified in the AB 1550 map in Figure 4.

3.2.4 Healthy Places Index

Figure 6. Low and High-VMT Areas Mapped with HPI Equity Communities



Created by Maxwell Belote-Broussard on March 7, 2024, with contributions from Gil Navarrete.

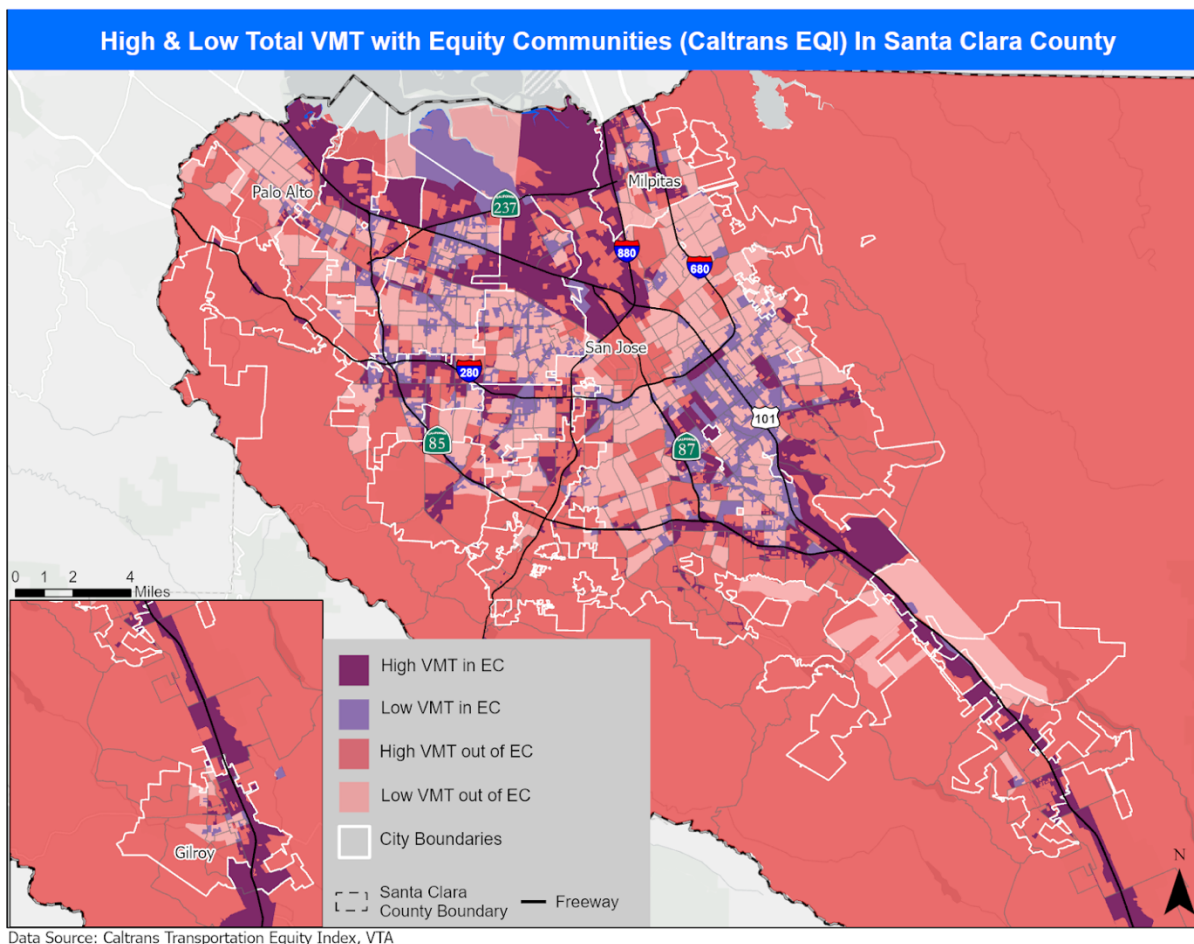
The Healthy Places Index (HPI) assesses a health equity score to neighborhoods based on 25 key drivers of health and life expectancy at birth that fall into eight domains: economics, education, health care access, housing, neighborhood conditions, pollution/clean environment, social, and transportation. Scores range between 1 and 99 with higher scores indicating healthier community conditions.³⁷ HPI categorizes scores into quartiles but for the purposes of mapping equity and non-impacted communities, a score of 40 was used as the cutoff between the categories.

Figure 6 presents the HPI equity communities overlapped with low- and high-VMT areas for Santa Clara County. The HPI equity communities cover more areas in the county compared to the MTC EPCs. Still, the largest clusters of equity communities are found in Central and East San José and Gilroy, similar to the distribution of the MTC EPCs. The same areas in Alviso, northern Sunnyvale, Morgan Hill, and Gilroy additionally identified by AB 1550 and SB 535 as equity communities also appear on this map. Distinct areas identified as disadvantaged by the HPI include a few tracts in Milpitas, a larger area in Morgan Hill, areas in South San José, and large

unincorporated areas between and surrounding Morgan Hill and Gilroy. A majority of the additional areas identified show up as high-VMT tracts.

3.2.5 Caltrans EQI

Figure 7. Low and High-VMT Areas Mapped with Caltrans EQI Priority Communities



Created by Maxwell Belote-Broussard on March 7, 2024.

The Caltrans Transportation Equity Index (EQI) focuses on measures of transportation impacts on communities with consideration of both socioeconomic and transportation-specific indicators to evaluate burdens caused or exacerbated by the transportation system. Indicators include race/ethnicity, household income, traffic exposure (including crash exposure), and access to destinations. The EQI map displays information at the census block level for three distinct categories: priority populations, high traffic exposure, and poor access to destinations. For purposes of mapping equity communities for this project, only the priority populations layer was included.

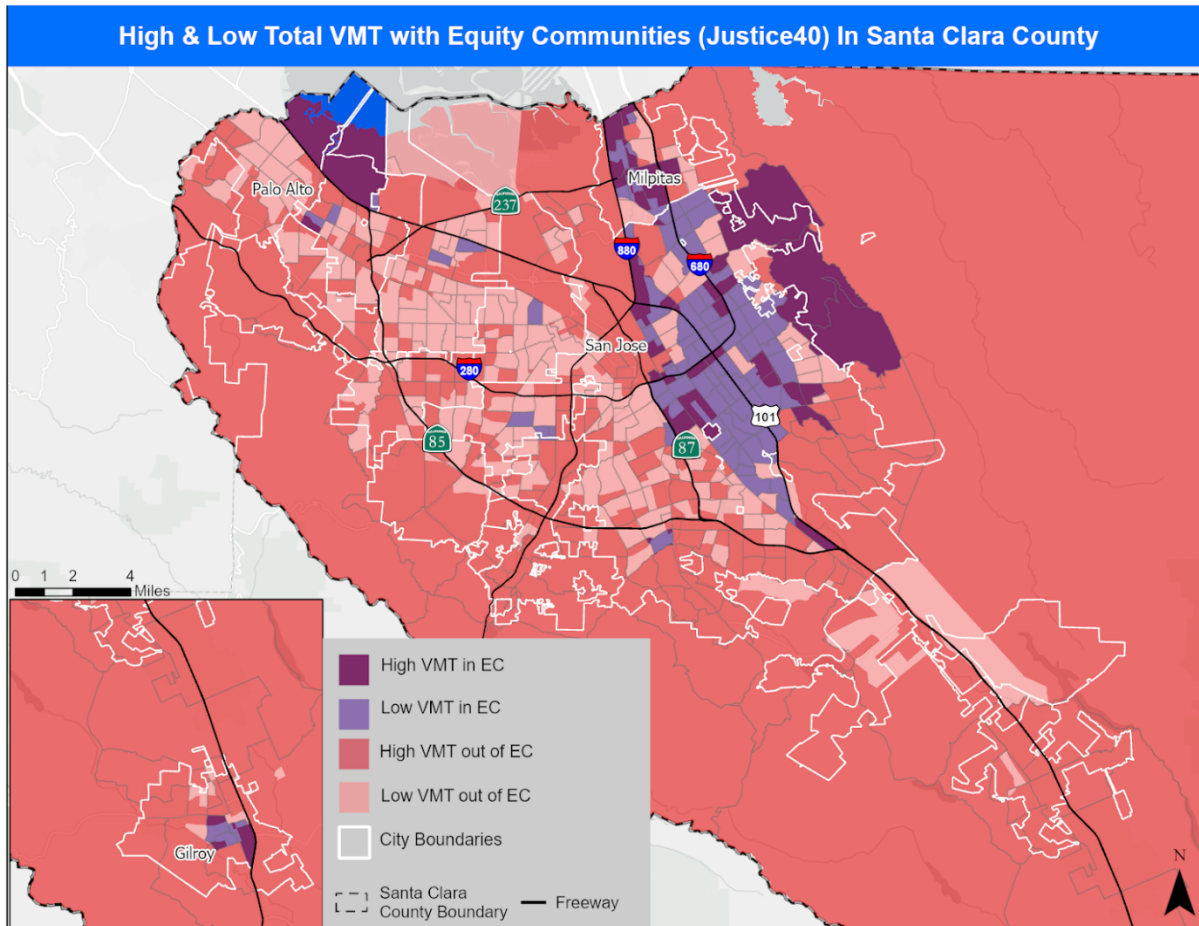
Figure 7 presents the Caltrans EQI priority populations overlapped with low- and high-VMT areas for Santa Clara County. The EQI low- and high-VMT map deviates the furthest from the other maps in terms of areas identified as equity communities. Clusters in Central and East San José as well as in Gilroy are identified as burdened, consistent with the equity areas in all other

indices, and areas in northern Sunnyvale and Morgan Hill are identified as burdened, consistent with equity areas in the HPI, AB 1550, and SB 535. However, many other census blocks throughout the county are also identified as equity communities according to the EQI, indicating that transportation impact burdens are prevalent. These additional locations are often along freeways and high-volume arterial roadways around the county. The EQI map also shows a considerable number of low-VMT areas experiencing transportation impact burdens.

There were a few limitations in working with the Caltrans EQI. It is a tool that is still in development and at the time of writing has only been released for public viewing as a “beta” (draft) version. Additionally, there are three distinct categories of burden identified by the EQI; however, the SJSU/MTI team was only able to capture one of the layers (priority population) when developing the maps for this report. For good measure, the research team completed additional spatial analysis and mapping using the Justice40 screening tool, which also captures transportation impacts, to ensure the reliability of the findings presented. The research team encourages the VTA project team to explore the other two EQI screens that capture traffic exposure and access to destinations.

3.2.6 Justice40

Figure 8. Low and High-VMT Areas Mapped with Justice40 Burdened Communities



Data Source: Climate and Economic Justice Screening Tool, VTA

Created by Maxwell Belote-Broussard on March 7, 2024.

The Justice40 screening tool identifies communities for priority investment to address burdens in climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development. If a community meets the burden thresholds for at least one of the categories or is located on land within the boundaries of Federally Recognized Tribes, it is considered by the Justice40 tool as disadvantaged.³⁸ The tool stems from Executive Order 14008 and its purpose is to identify communities that are slated to receive 40 percent of overall benefits from federal investments in climate, clean energy, affordable housing, and clean transit, among other investment areas.³⁹

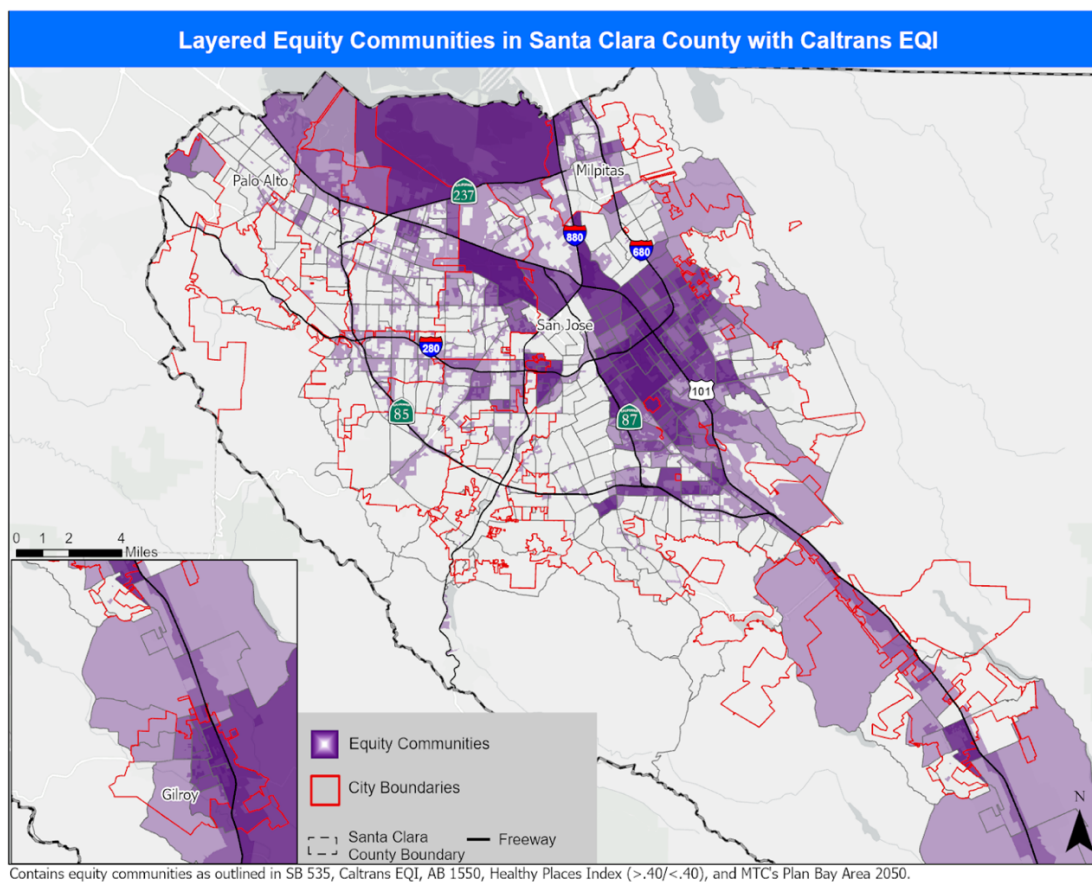
Figure 8 presents the Justice40 burdened communities overlapped with low- and high-VMT areas for Santa Clara County. Many of the Justice40 equity communities overlap with both the MTC EPCs and the HPI equity communities. Clusters are mostly confined to areas in or surrounding Central and East San José and in Milpitas. Unlike the Caltrans EQI, which also captures transportation impacts, far fewer areas throughout the county are identified as burdened. The City

of Santa Clara and Gilroy have comparatively fewer census tracts identified as equity communities compared to all other definitions. Regarding VMT measures, a majority of the census tracts identified as equity communities are low-VMT areas. Because the Justice40 screening tool includes measures for pollution and transportation burdens, the low-VMT areas identified in this map may be areas disproportionately experiencing pollution and transportation burdens.

The Justice40 equity communities are identified as long as they meet at least one of the burden thresholds or if they are located within the boundaries of a Federally Recognized Tribe. Due to time limitations, the research team was not able to conduct further analysis to distinguish the specific types of burdens that each of the Justice40 equity communities is experiencing. Thus, it is recommended that the VTA project team further explores the Justice40 equity communities to distinguish those experiencing pollution and transportation burdens as these are areas that may benefit from VMT-mitigating transportation solutions.

3.2.7 Combined Maps

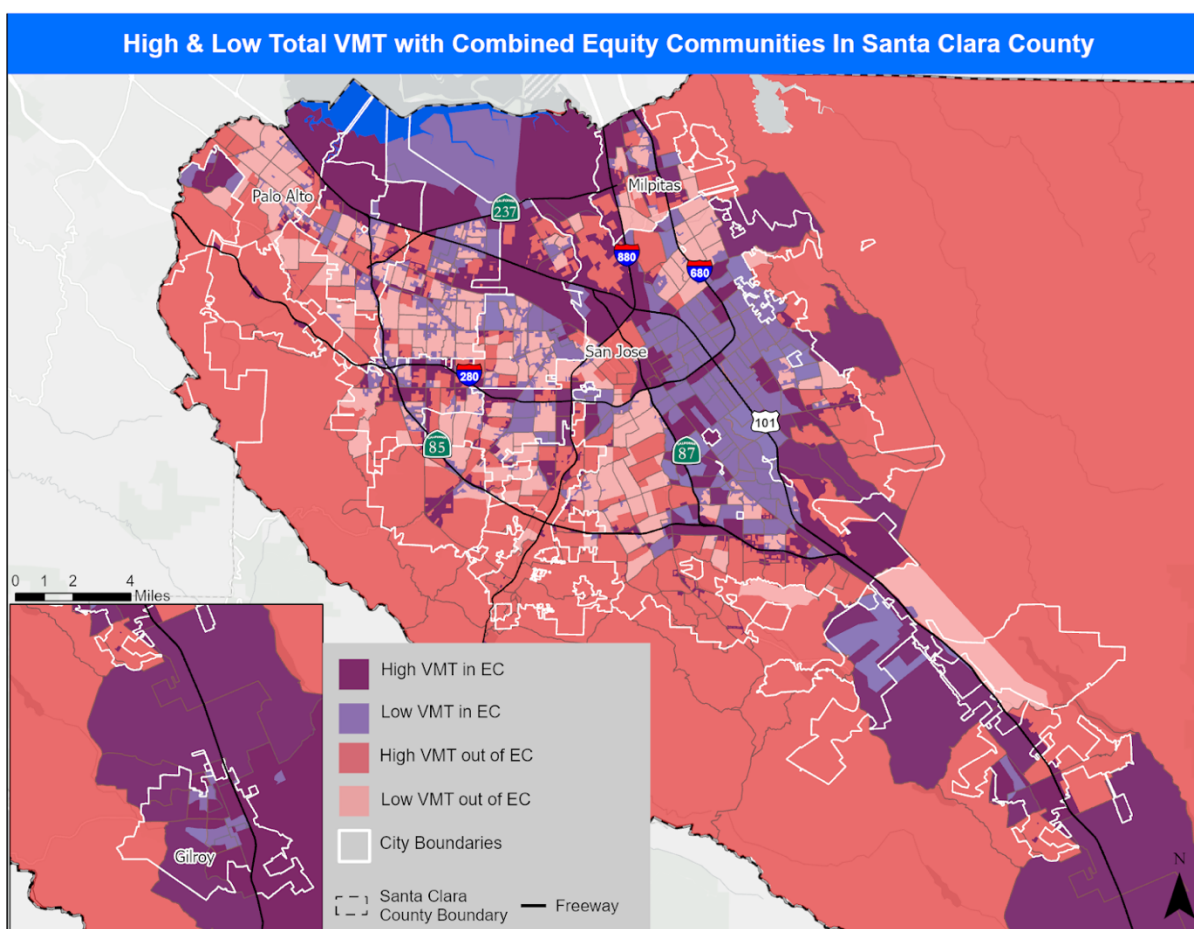
Figure 9. Map with Layered Equity Communities Including MTC EPCs, AB 1550, SB 535, HPI, and the Caltrans EQI.



Created by Maxwell Belote-Broussard on March 7, 2024.

Figure 9 presents a layered map of the first four equity indices (MTC EPCs, AB 1550, SB 535 and HPI) along with the Caltrans EQI representing areas burdened by transportation impacts. These layers are mapped together with each shown partially transparent, so that the more layers (equity indices) an area falls into, the darker the color on the map. Many of the census block groups identified west of San José as burdened areas are only considered equity communities by one metric, so they have a light shading. Areas identified by multiple indices as equity communities are shown in darker shading. Aside from the MTC EPCs and Alviso, the areas identified by multiple indices include the area in northern Sunnyvale, parts of South San José, an area in Morgan Hill just west of US 101, and the unincorporated area to the east of Gilroy.

Figure 10. Low- and High-VMT Areas Mapped with Combined Layers for MTC EPCs, AB 1550, SB 535, the HPI, and the Caltrans EQI.



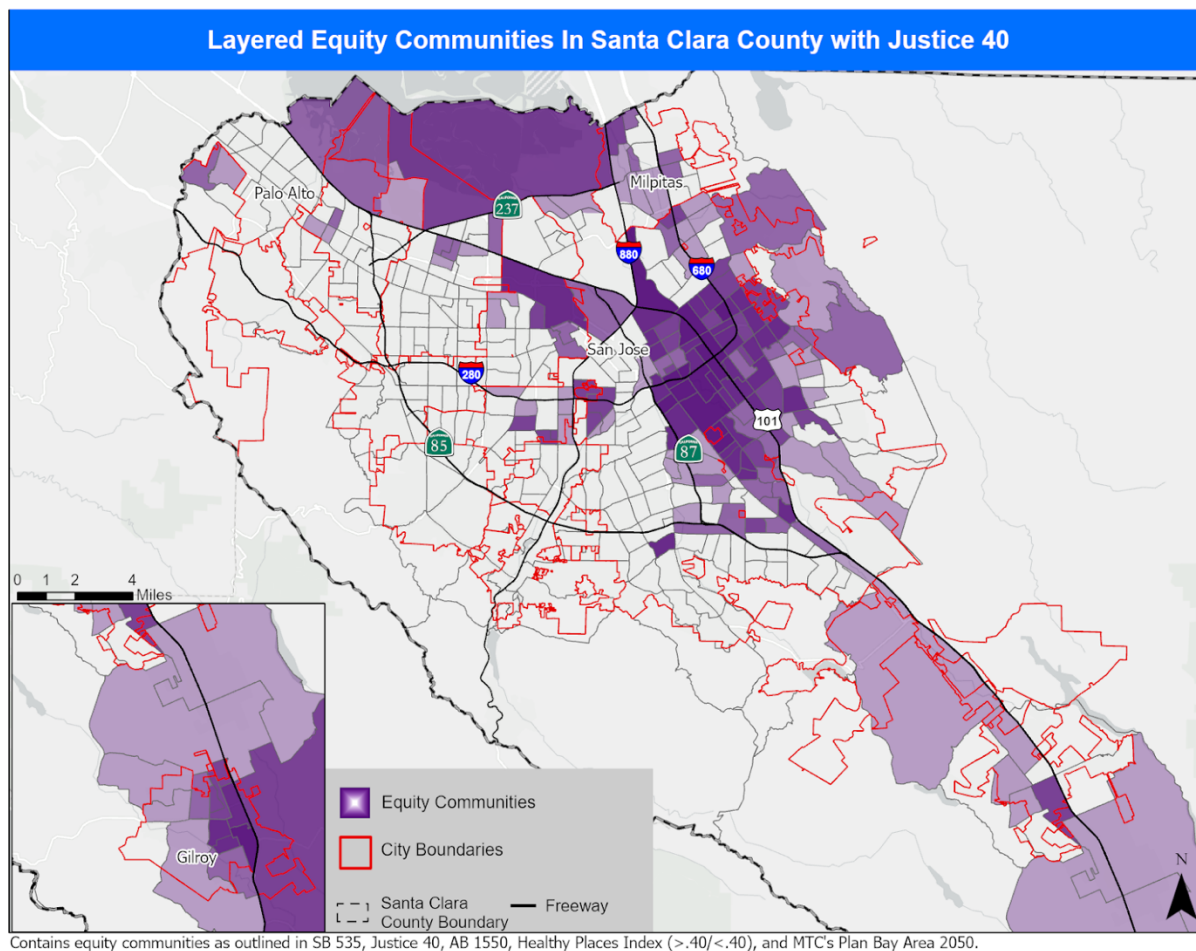
Contains equity communities as outlined in SB 535, Caltrans EQI, AB 1550, Healthy Places Index (>.40/<.40), and MTC's Plan Bay Area 2050.

Created by Maxwell Belote-Broussard on March 7, 2024, with contributions from Gil Navarrete.

Figure 10 presents a combined map of the first four equity indices plus the Caltrans EQI (similar to Figure 9) overlaid with low- and high-VMT areas. It shows that inequity and/or burden are spread throughout the county. Although most of the areas identified as burdened in the western side of the county show up on the EQI only and not any other indices (similar to Figure 9), these findings may still have value. It could be an indication that there are many potential areas

throughout the county that could benefit from VMT mitigation solutions, even if many of the surrounding areas are widely regarded as non-disadvantaged. VTA should work closely with city partners and the county to identify any specific areas that are disadvantaged or burdened and would benefit from VMT mitigation solutions.

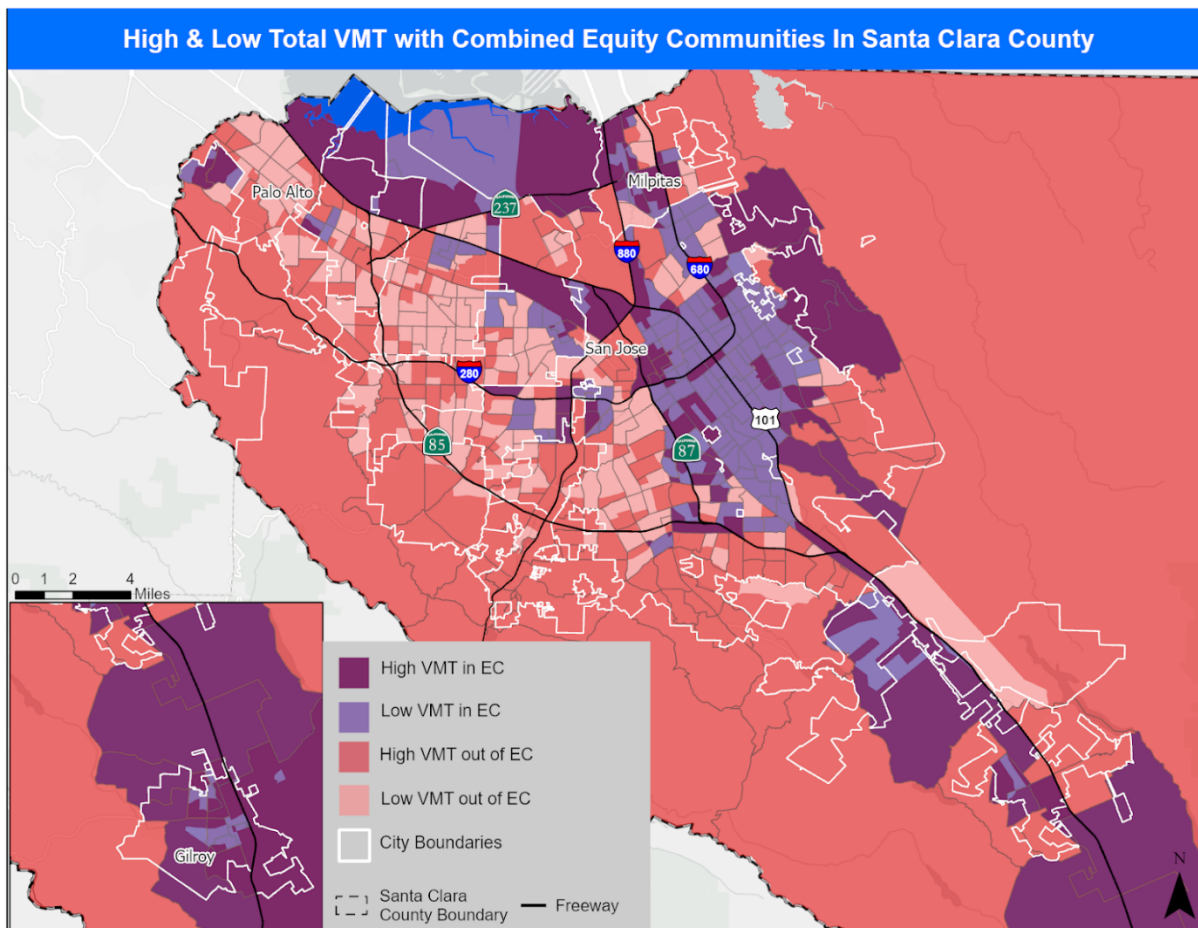
Figure 11. Map with Layered Equity Communities Including MTC EPCs, AB 1550, SB 535, HPI, and the Justice40 tool.



Created by Maxwell Belote-Broussard on March 7, 2024.

Figure 11 presents a layered map of the first four equity indices (MTC EPCs, AB 1550, SB 535 and HPI) along with the Justice40 tool data representing areas burdened by transportation impacts. It reinforces that equity communities are concentrated in Central and East San José. Compared to the layered map with the Caltrans EQI (Figure 9), inequities and burdens are more concentrated in areas of North San José and northern Sunnyvale, Central and East San José, Gilroy, and along a few highly trafficked freeways (such as US 101, I-880, and I-280) rather than along many freeways and arterial roadways. Similar to in Figure 9, areas in northern Sunnyvale, Morgan Hill, and east of Gilroy are identified by multiple alternative equity indices.

Figure 12. Low- and High-VMT Areas Mapped with Combined Layers for MTC EPCs, AB 1550, SB 535, the HPI, and the Justice40 tool.



Contains equity communities as outlined in SB 535, Justice 40, AB 1550, Healthy Places Index (>.40/<.40), and MTC's Plan Bay Area 2050.

Created by Maxwell Belote-Broussard on March 7, 2024, with contributions from Gil Navarrete.

Figure 12 presents a combined map of the first four equity indices plus the Justice40 tool data (similar to Figure 11) overlaid with low- and high-VMT areas. It shows inequity and/or burdens concentrated mostly along the Bay shoreline north of US 101 and SR 237, in Central and East San José, and along US 101 all the way to Gilroy. There appears to be a trend of equity communities being concentrated in areas adjacent to US 101 and interchanges with major freeways such as I-880 and I-280. Some of these equity communities are also in high-VMT areas, but equity communities in Downtown San Jose and surrounding neighborhoods are mostly showing up as low-VMT areas. Based on these findings, VTA could further research the reason behind tracts showing up as low- or high-VMT, especially in the Central and East San José areas, as the low-VMT communities could be suffering from disparate impacts of pollution or transportation burden.

3.3 Community Engagement Observations and Feedback

3.3.1 Feedback and Recommendations for VTA's Current Community Engagement Practices

Students felt that VTA's handling of public meetings, surveys, and focus groups for this project was excellent. As part of the first community engagement phase, VTA administered a community travel survey online through the project website to gain deeper insight into the community's travel habits and transportation needs for reducing VMT. A paper version of the survey was available at in-person community engagement events as well. At community events, students observed VTA and Fehr & Peers staff walking attendees through the tabling boards and input exercises. Students felt VTA's use of stickers, giveaways, and games at these events was effective in drawing community members to the booth and made the process engaging for parents and their children. One area where students felt VTA could improve was that in addition to letting people approach the booth on their own, staff members could make more of an effort to initiate engagement and draw the attention of passersby.

Figure 13. Tabling Board from the Day on the Bay Festival Showing Community Members' Responses to the Transportation Challenge Question

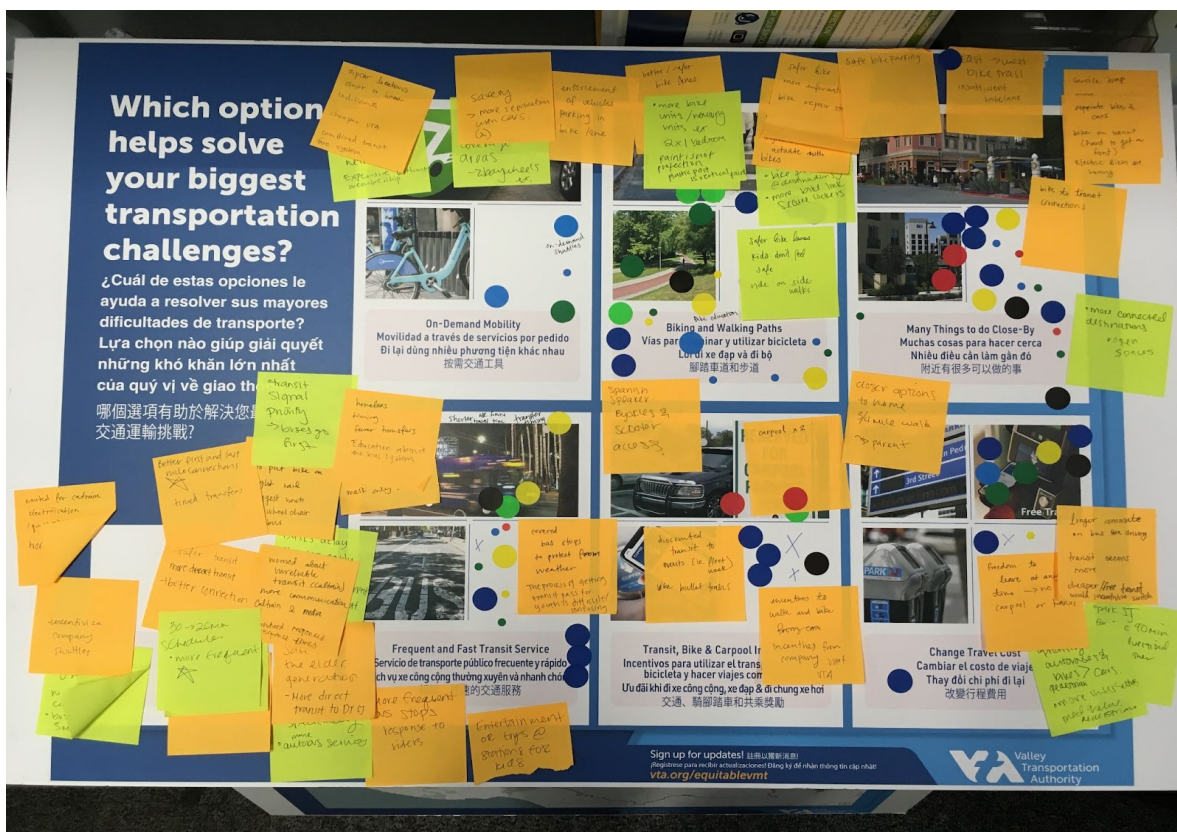
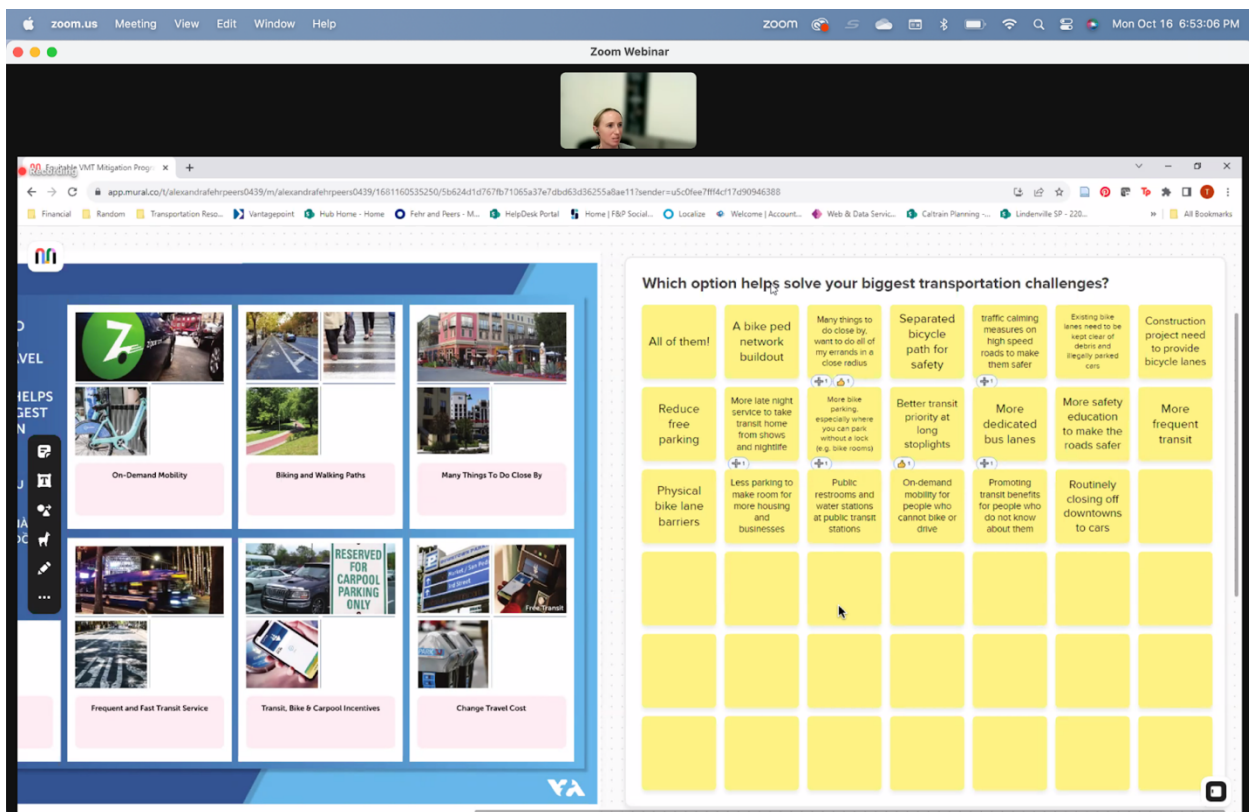


Photo credit: VTA project team.

Students felt the Virtual Community Meeting #1 was a success and showcased many examples of best practices for equitable community engagement. VTA employed multiple tools to promote participation among attendees, including demographic polls, a question-and-answer session, and a workshop-style walkthrough of the travel habits and transportation needs questions. VTA staff provided a brief overview of the program and also spent time explaining how attendees' feedback would be incorporated into the program and future VTA projects. The workshop-style activities allowed participants to provide in-depth feedback on the community's most prevalent transportation needs and the barriers they face in VMT reduction. Additionally, interpreters were available in Spanish, Vietnamese, and Mandarin, which provided the opportunity for attendees to participate in their native language. Overall, students felt VTA utilized tools to enhance the participation process for all attendees. The CBO focus group sessions were structured similarly with a focus on obtaining feedback from CBOs.

Figure 14. Transportation Solutions Feedback Activity during the Virtual Community Meeting #1.




Students felt that VTA's multi-channel communication approach and use of clear and accessible language was good, but could benefit from a few improvements. The VTA project team hosted or participated in both in-person and virtual events, which provided various demographics groups with the opportunity to engage with VTA in a way that suited their needs. Additionally, VTA participated in community festivals in Gilroy and Alviso to broaden their reach to community members from equity-priority communities. The tabling boards, included in Appendix D, used graphics to convey messages and also displayed written messages in English, Spanish, Vietnamese,

and Chinese, which reduced the language barriers for many non-English speaking community members. Figure 15 shows an example of translated materials used at a community engagement event. VTA’s continued efforts to provide project materials and engagement opportunities in multiple languages evidenced the agency’s sustained commitment to inclusivity of non-English speaking community members in the community engagement process.

Figure 15. Slide from the Virtual Community Meeting #1 Presentation Showing Project Information Displayed in English, Spanish, Vietnamese, and Chinese

What is the project about?
 ¿De qué se trata el proyecto?
 Dự án này nói về cái gì?
 本項目有關何事?

Reducing driving from development projects	Reducir los niveles de conducción vehicular desde los proyectos de desarrollo	Giảm việc lái xe từ các dự án phát triển	減少開發項目的驅動力
Improving transportation options	Mejorar las opciones de transporte	Cải thiện các lựa chọn giao thông	改善交通選項
Improving equity, especially for communities that need it the most	Mejorar la equidad, especialmente para las comunidades que más la necesitan	Cải thiện tính công bằng, đặc biệt là đối với các cộng đồng cần nó nhất	提高公平性，特別是對最需要平等的社區

 Valley Transportation Authority
Solutions that move you

4

Regarding areas for improvement, students felt the tabling materials could be produced with different font choices and should contain more graphics. Students noted that the font color and choice should be changed as it was difficult to view the tabling boards in certain outdoor settings. Students additionally noted that some of the maps and infographics used at community engagement events could be simplified for non-technical audiences by focusing more on visuals rather than text. Simplifying the tabling boards and placing them in an intuitive order so community members are able to walk through and grasp the content on their own would aid instances where the booth is crowded and staff cannot address everyone at once or where staff are not equipped to interpret materials for non-English speaking community members. Implementing these improvements would enhance VTA’s multi-channel communication approach and use of clear and accessible language. Lastly, students felt that VTA could further leverage digital

platforms and social media to reach a broader audience and foster ongoing, interactive dialogues with the community.

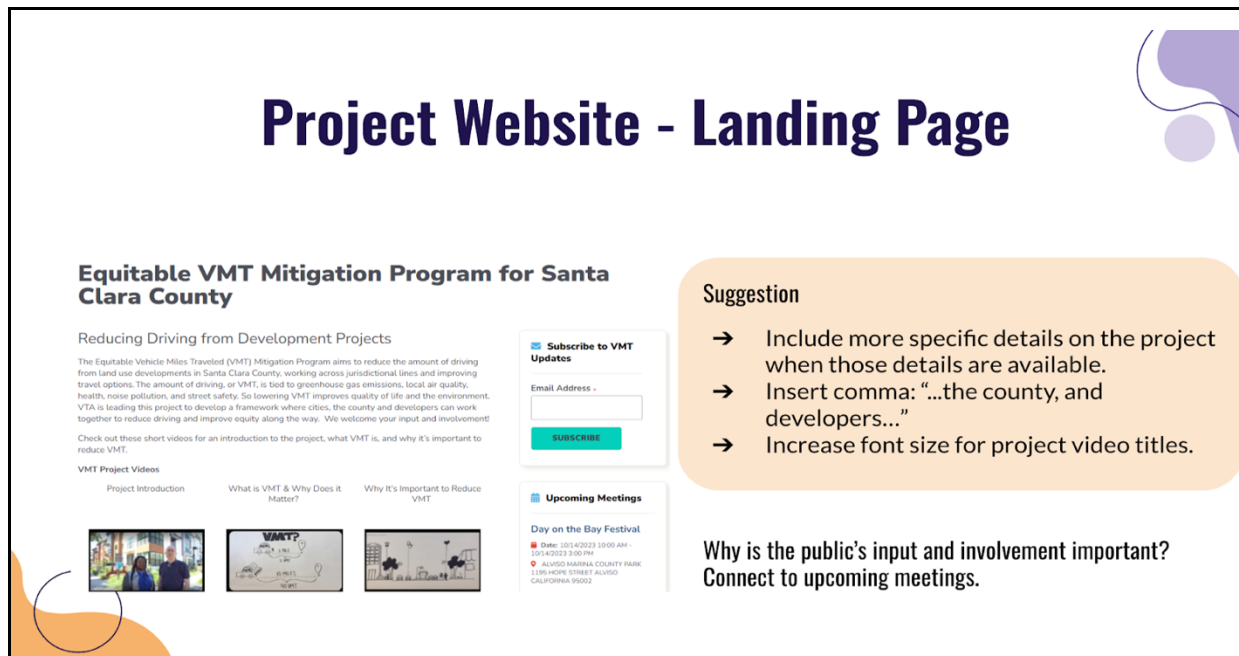
The research team additionally identified equitable community engagement and communication techniques for transportation projects that the VTA project team can consider for future phases of project engagement. These include:

- Consideration of a community-led engagement model, “which includes meaningful participation in the design and implementation processes [and] has the potential to better engage a diversity of perspectives.”⁴⁰
- Identifying indirect stakeholders and customizing messages to make the program goals relevant to them.⁴¹ Customizing messaging to community members may help those who are uninterested in the program better understand how they could stand to benefit from its goals. For example, a community member may not be interested in reducing their driving but may find the reduction of greenhouse gas emissions an appealing benefit.
- In engagement materials, overrepresent groups and individuals who have historically been underrepresented in the planning process as doing so can ensure materials are representative of community diversity and broaden the appeal and relatability of these project materials, resulting in a wider audience that is inclusive of the underrepresented groups being reached.⁴²

3.3.2 Feedback on the messaging and communication of VTA’s public-facing project materials

As mentioned previously, students reviewed public-facing project materials and provided feedback in four main areas: the project website, graphics and media, accessibility of materials, and survey and data collection. Website recommendations included listing co-benefits of VMT mitigation to garner broad support for the program and expanding on the project timeline sections to provide more information on what each stage entails. Graphics and media recommendations included providing more context to better explain the piggy bank flowchart (included in **Appendix D**) for non-technical audiences and a recommendation to consider an animated art style for future project videos as opposed to the sketch style featured in two of the published videos. Recommendations for accessibility of materials involved clarifying program goals and the concept of VMT to general audiences and improving the translations of program materials in Spanish, Vietnamese, and Chinese as native speakers of these languages noted that the translations did not always accurately communicate points outlined in the English version of program materials. Lastly, recommendations for survey and data collection included creating an online version of the input exercises featured in the tabling materials along with a QR code to declutter the tabling boards and to use custom streetscapes to display the various VMT mitigation solutions in a way that is more visually engaging for audiences.

Figure 16. Example of Student Feedback for Messaging and Communication of Public-Facing Project Materials



By Annie Jones, Michelle Chang, and Thuy Nguyen.

3.4 Stakeholder Interviews with Community Members and Community-Based Organizations

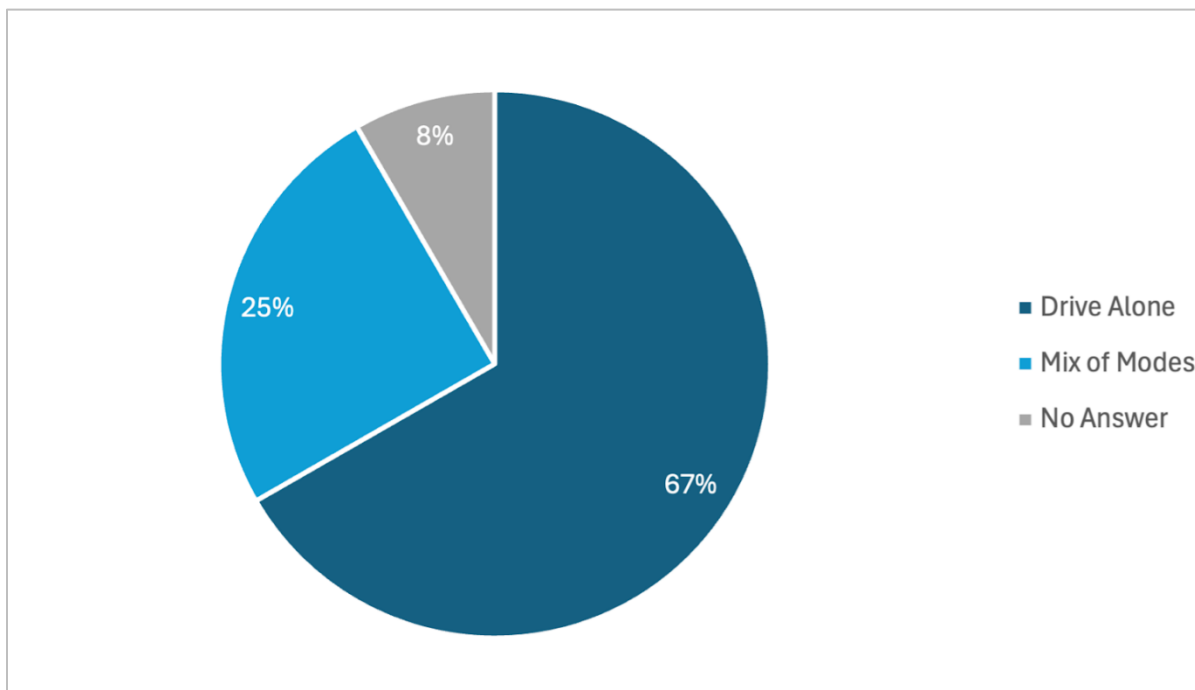
As mentioned in the Stakeholder Interviews methodology, students conducted interviews with CBO representatives and community members to gather more in-depth information on community transportation priorities, feelings toward new developments, and feelings toward development contributions to fund VMT mitigation measures. This section discusses key themes from the interviews.

3.4.1 Connectivity, safety, reliability, and competitiveness with car travel for alternative modes were identified by interviewees as major transportation needs for the community.

Both community members and representatives of the CBOs noted that improvements to connectivity, safety, reliability, and competitiveness in travel time of alternative modes are needed to entice a shift away from private vehicle use. Figure 17 shows the primary travel modes for the general community members interviewed. Most community members primarily travel by driving alone, citing the inability of public transit to get them where they needed efficiently. Multiple interviewees also noted that transit travel times are often around double the travel time of driving alone and that a major shortfall of transit is that many routes lack access to important services or key destinations, such as health care or their place of work, respectively. In comparing the Bay Area's land use and proximity of destinations to Manhattan's, one community member stated, "I feel like a lot of my friends want to get rid of our cars, but we just can't." It was also repeatedly

expressed, particularly among community members, that they believe public transit is an unsafe option. Almost all interviewees expressed that major improvements to and expansions of public transit are needed.

Figure 17. Primary Travel Modes for Community Members Interviewed (n=12)



Figures 18–20 show the frequency of transportation priorities mentioned in the interviews for general community members, CBO representations, and all interviewees. In terms of active transportation modes, interviewees noted a lack of safe infrastructure, conveniently located amenities, and more limited mobility as major reasons for choosing to drive over biking and walking. A representative of MVCSP discussed safety issues for cyclists due to incomplete routes, noting that some areas lack bike infrastructure entirely. A representative from SVBC discussed a lack of amenities to support biking, such as secure and convenient bike parking. Regarding travel by foot, community members mentioned they walked when their destination was within walking distance but otherwise drove, and they also voiced concerns about safety when walking at night. Interviewees also spoke to the reality that these active modes are not viable for them due to the locations of their housing, employment, and services being spread throughout the county and even the larger Bay Area region.

Figure 18. Transportation Priorities Among Community Members Interviewed (n=12)

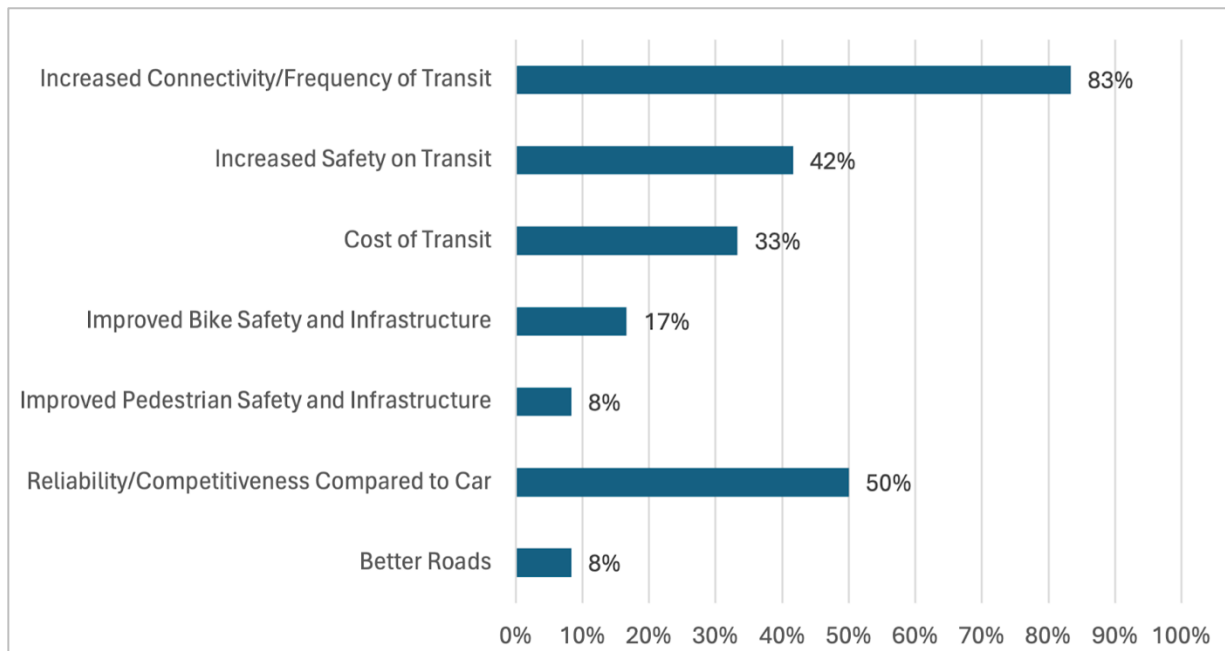


Figure 19. Transportation Priorities Among CBO Representatives Interviewed (n=8)

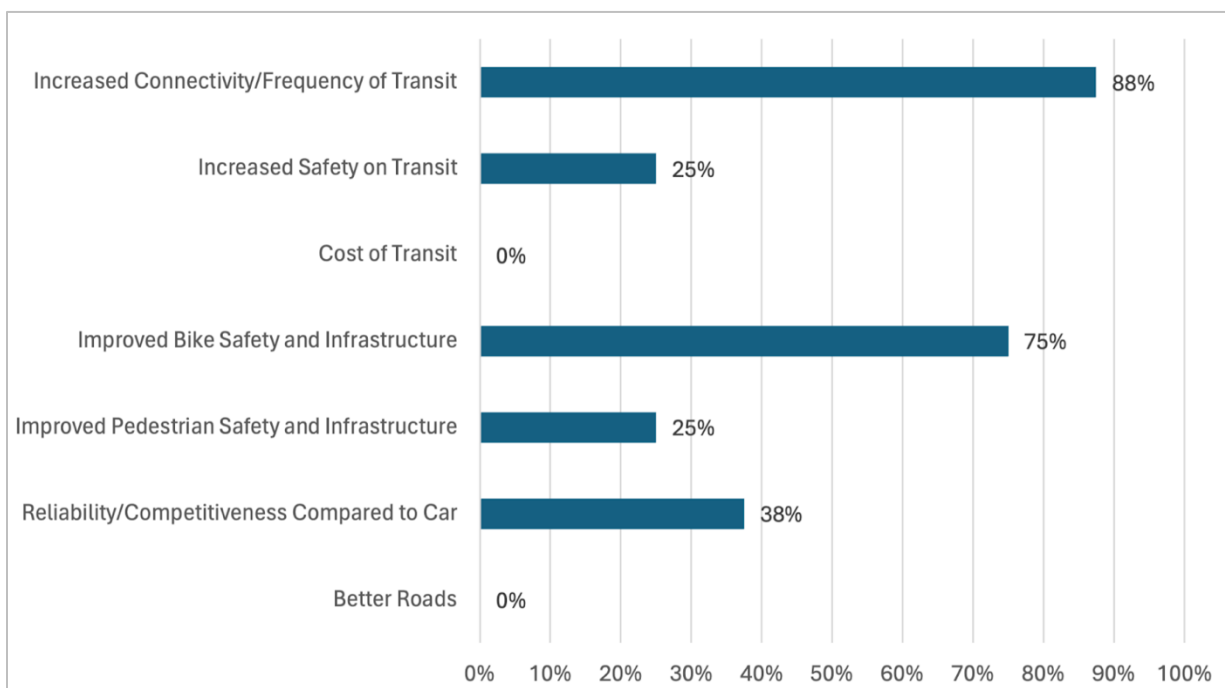
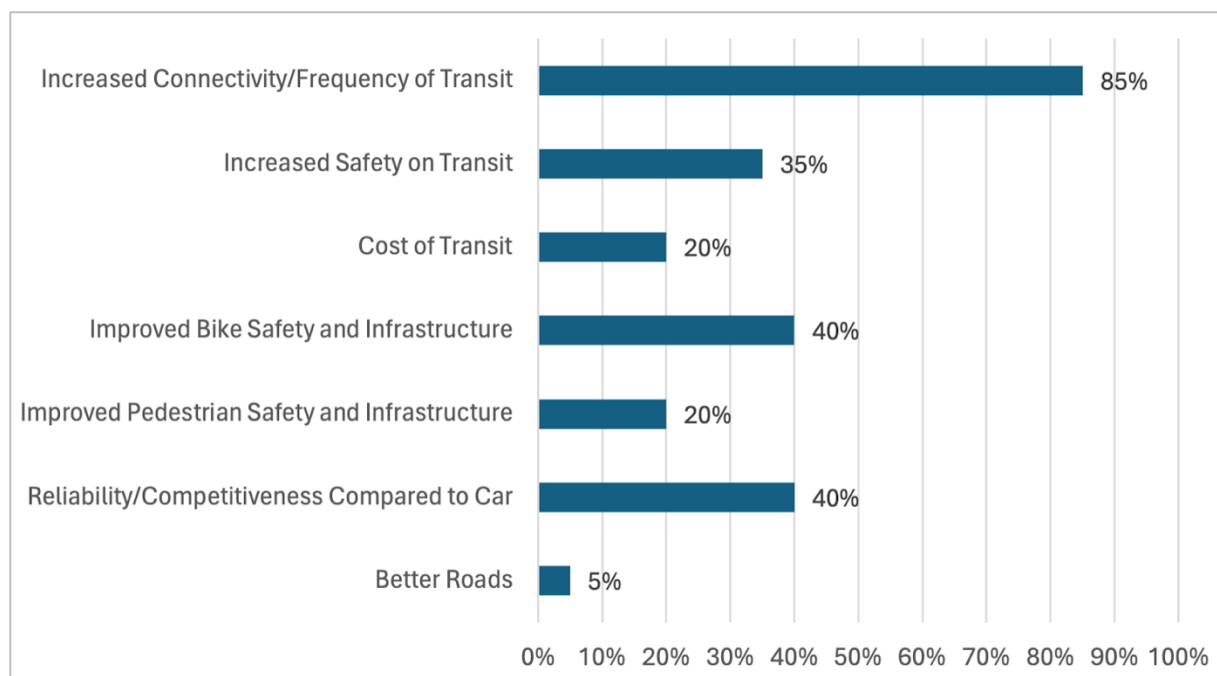


Figure 20. Transportation Priorities Among All Interviewees (n=20)



3.4.2 The most prominent new development concerns mentioned by interviewees were congestion and negative impacts on existing residents.

When asked about their thoughts on new developments in their area, most interviewees responded with negative sentiments regarding the potential problems that accompany new development projects. Figures 21–23 summarize new development concerns among the respondents based on the frequency with which each concern was mentioned during the interviews. The most frequently voiced concerns among all interviewees were the increased congestion from new developments and the negative impacts new developments can have on communities, such as displacing or harming existing residents. One community member shared that they dislike new developments happening in their area because it “leads to more people and overcrowding.” In the same vein, the RYDE representative stated that “the influx of new large developments has made it apparent that the city’s infrastructure, including transportation, was not ready for the [growth].” These responses indicate that the interviewees are most concerned about the kinds of issues that VTA is hoping to address with the Equitable VMT Mitigation Program. Thus, VTA may be able to leverage the prominence of these concerns to garner additional support for the project by educating the public on the co-benefits of VMT mitigating transportation solutions.

Figure 21. New Development Concerns Among Community Members Interviewed (n=12)

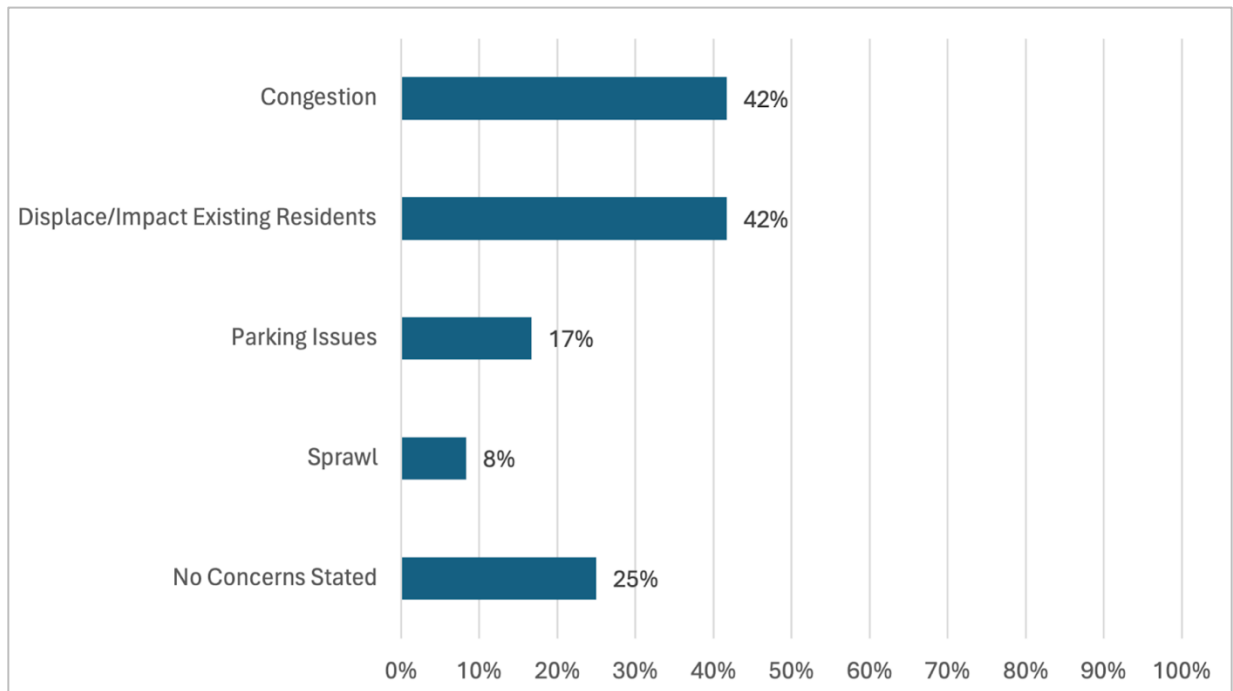


Figure 22. New Development Concerns Among CBO Representatives Interviewed (n=8)

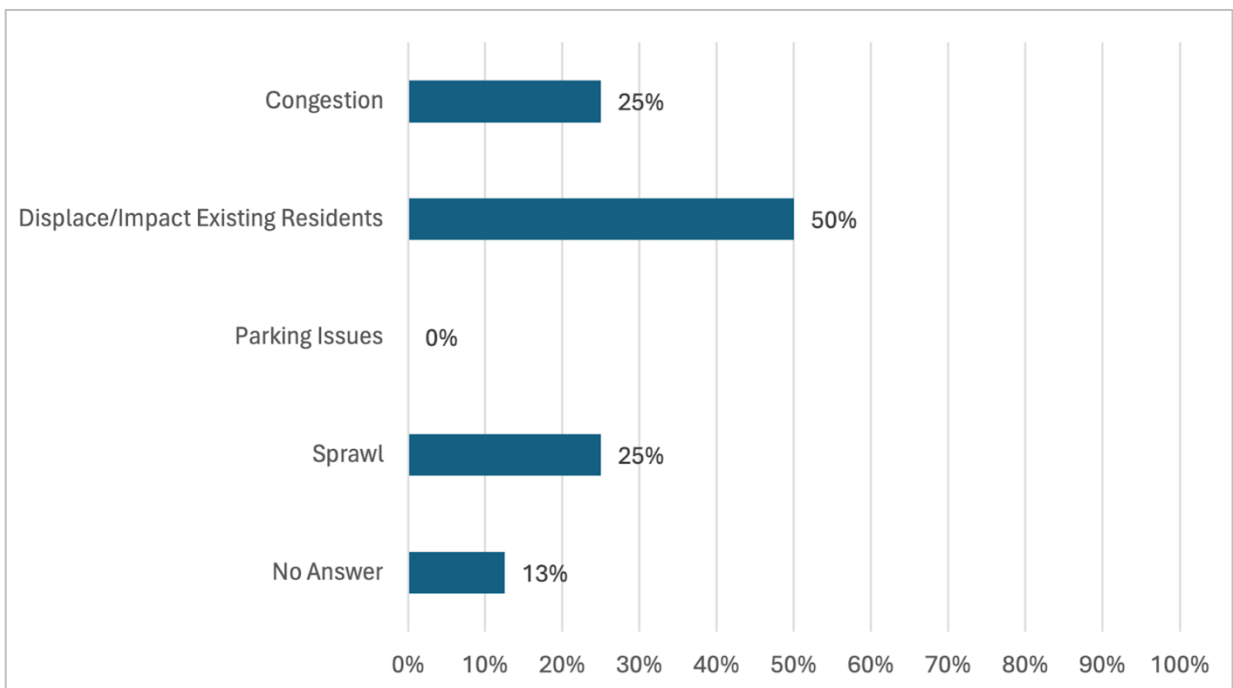
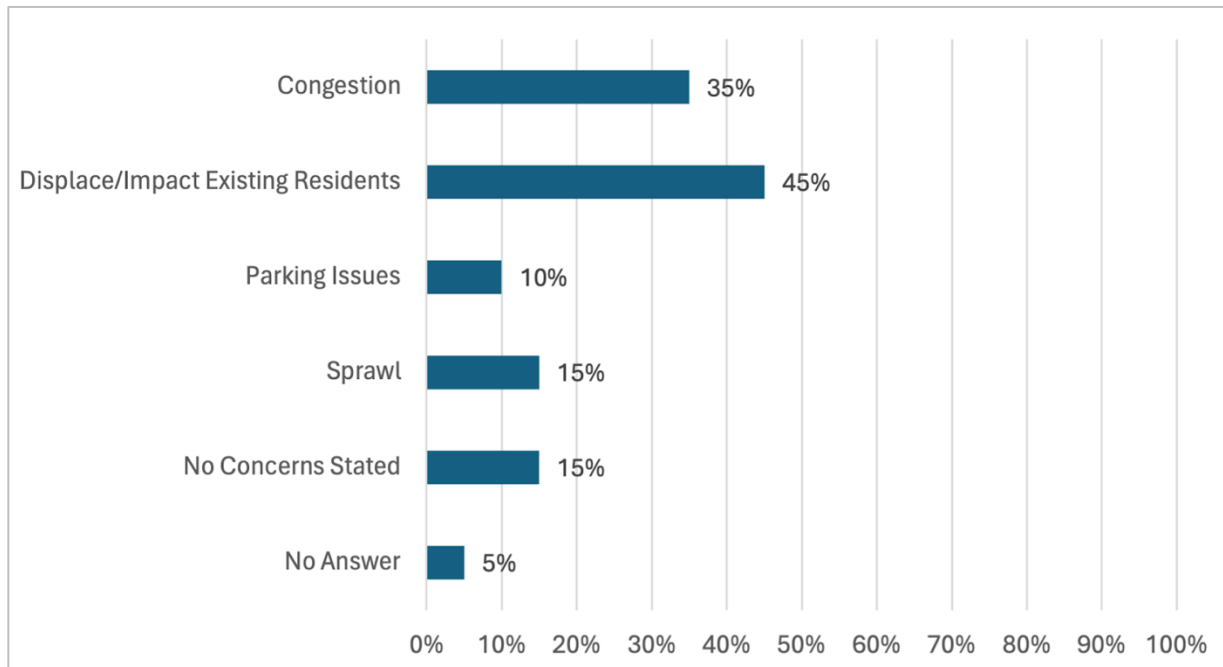


Figure 23. New Development Concerns Among All Interviewees (n=20)



3.4.3 A majority of interviewees either somewhat supported or conditionally supported developments contributing towards VMT mitigation measures. Main concerns were the potential impacts on the cost of housing and housing development, and transparency in program implementation.

Figures 24–26 show the level of support for development contributions to fund VMT mitigation measures among general community members, CBO representatives, and all interviewees. While most interviewees felt development contributions are an appropriate or acceptable method to collect funding for transportation improvement projects, there was concern about how additional development costs could impact costs of housing and housing development. Representatives from the housing-focused CBOs were particularly concerned about how assessing additional costs could burden the development of affordable housing. The representative for Transform expressed that it is hard to get affordable housing financed so it is not ideal to add additional costs to the process but did not have any opposition to assessing such fees for market-rate developers. The representative for CADRE also expressed concern over the additional costs leading to housing becoming more expensive, as the costs could get passed along to residents. Multiple interviewees were concerned that additional development costs could hinder housing development in general and expressed that this would be less than ideal given the shortage of housing.

CBO representatives and community members alike emphasized the need for transparency in the funding allocation of developer contributions and the project selection process. Some community members were concerned about misappropriation of funds and wanted to know exactly where the money would be going. Additionally, multiple CBO representatives mentioned the necessity of a nexus between the funding and off-site VMT mitigation projects. The representative for

Mountain View YIMBY mentioned that transit passes are not directly related to the developer or the development project. Similarly, a representative for MVCSP was concerned about whether there would be a nexus between developments in one area contributing to VMT mitigation measures in another. The Mountain View YIMBY representative also voiced that while he thinks the concept of VMT-based fees is acceptable as long as the finances make sense, he did not think it was fair for only new developments to pay for VMT mitigation projects if existing developments do not have to.

Many community members were unsure of what role VTA should have in VMT mitigation banks and exchanges. The representative for CADRE expressed that there does not seem to be transparency in how VTA operates as an organization. Accordingly, when asked about what VTA's role should be in relation to developers contributing towards VMT mitigation measures, many community members admitted that they were unsure of VTA's purpose or role beyond running the county's bus and light rail services. These responses indicate that more could be done to educate the public about VTA's function and reinforce the need for transparency to improve the public's trust and understanding of how this project is being implemented.

Figure 24. Level of Support Among Interviewed Community Members for Development Contributions to Fund VMT Mitigation Measures (n=12)

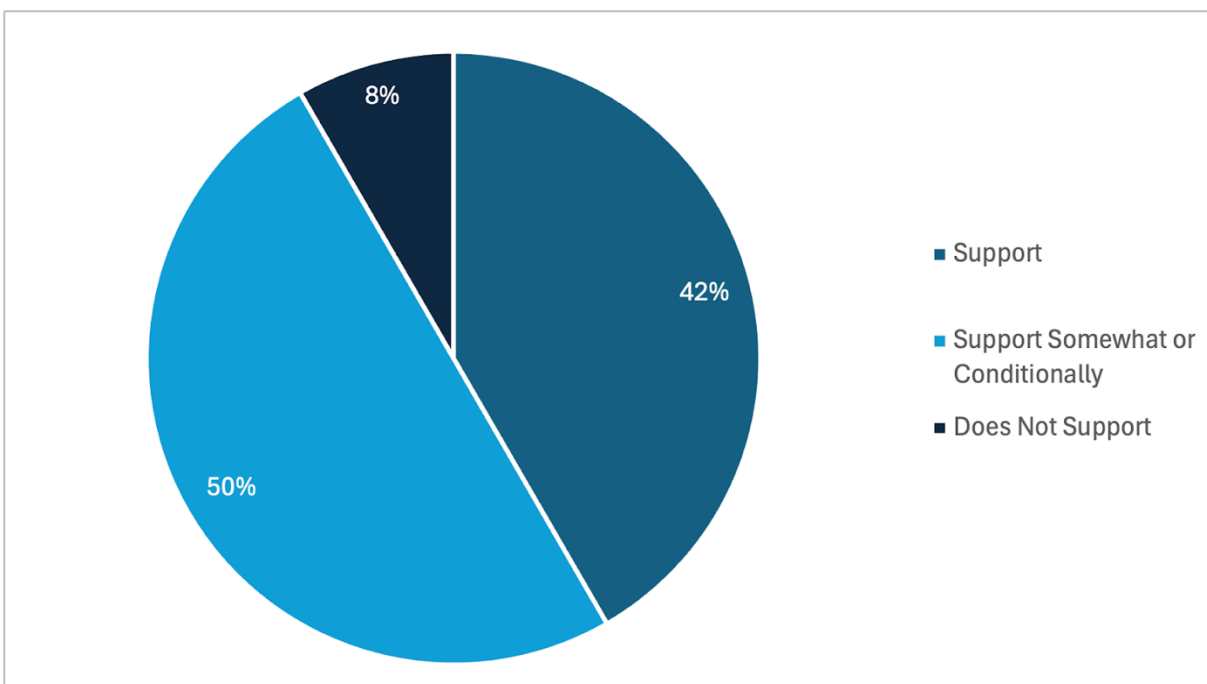


Figure 25. Level of Support Among Interviewed CBO Representatives for Development Contributions to Fund VMT Mitigation Measures (n=8)

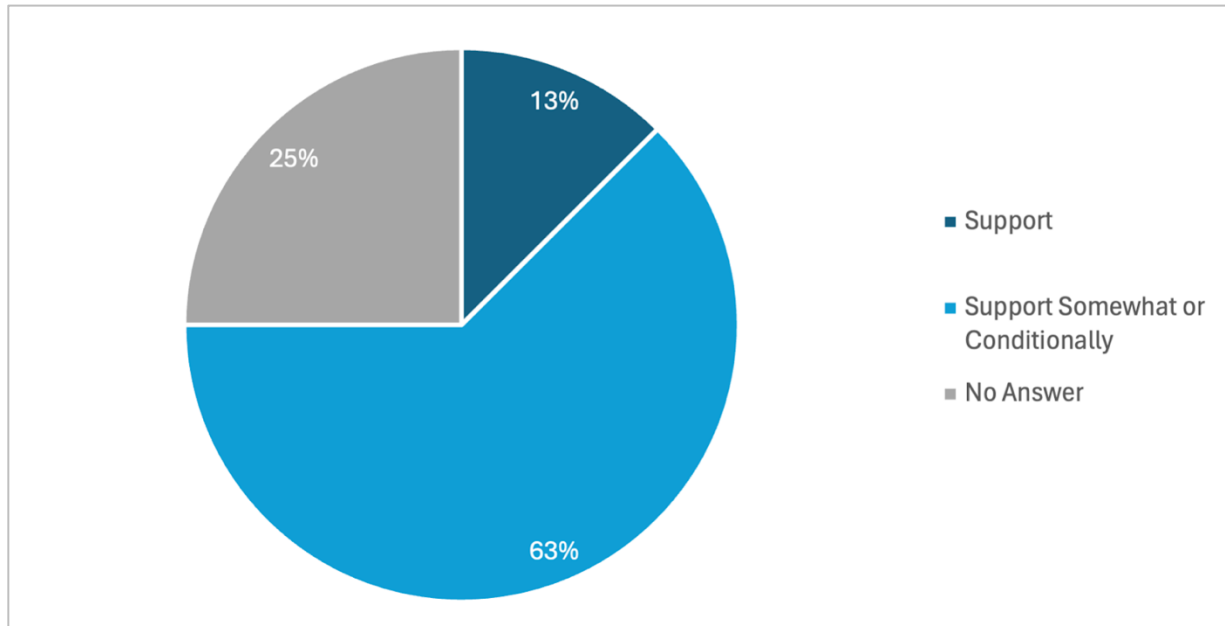
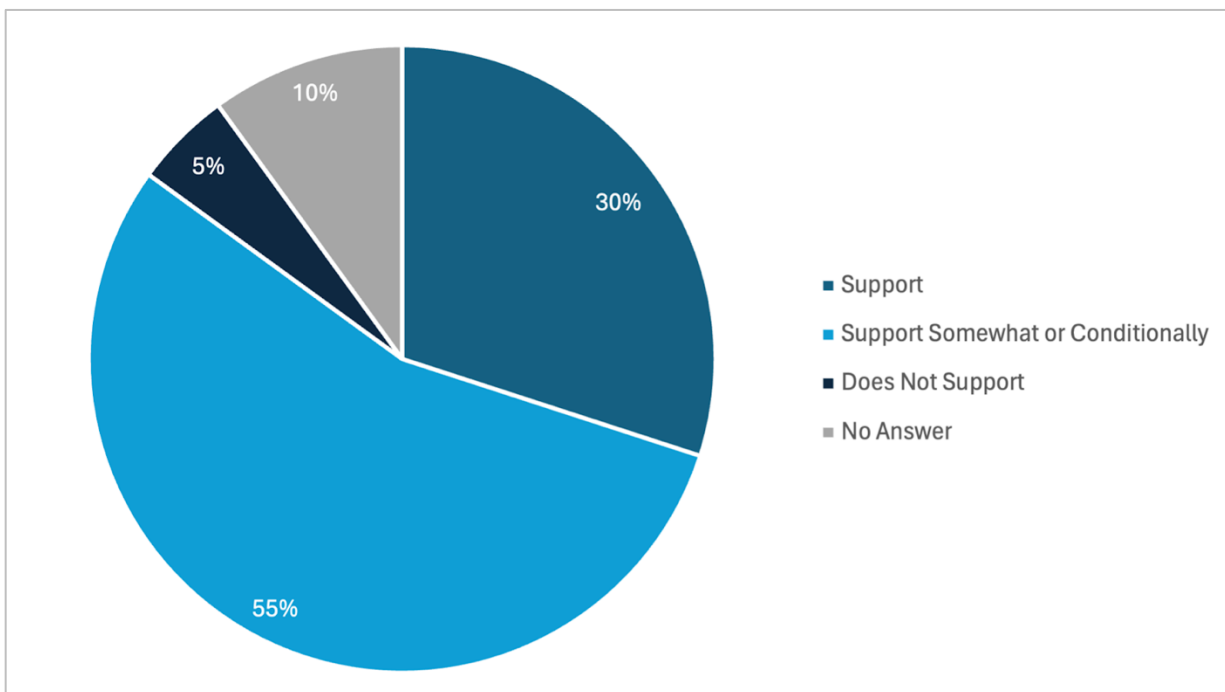


Figure 26. Level of Support Among All Interviewees for Development Contributions to Fund VMT Mitigation Measures (n=20)



4. Conclusions & Policy Considerations

Through analysis and further development of SJSU student contributions, the research team was able to identify key themes that emerged for best practices in equitable program development, implementation, and evaluation: 1) robust stakeholder engagement and meaningful community involvement are key elements of an equitable community engagement process that is reflective of community needs and priorities, 2) multiple and different dimensions of equity must be considered for thoroughness and to best understand how equity issues are experienced and intersected within the project area, and 3) equity should be incorporated at key decision-making points in the program design. This report discussed these best practices, including the ways VTA has already incorporated many of them into the framework for the Equitable VMT Mitigation Program. This section contains recommendations for how VTA could further incorporate these key practices along with more specific recommendations for the community engagement approach, additional equity areas of consideration for community engagement, and ways to address community concerns voiced during stakeholder interviews.

4.1 Recommendations Based on the Literature Review

From the literature review, key strategies for incorporating equity into the program framework and design were identified. The recommendations are as follows:

- A. **Develop a localized definition of VMT Equity.** Our analysis of the literature suggests that developing a localized definition of VMT equity is a key element of incorporating equity into the program framework. Developing a localized definition of VMT equity that is tailored to the community's needs and that is inclusive of the transportation priorities voiced by community members will help with better distributing transportation improvements throughout the community and reduce the likelihood that equity communities are overlooked. Additionally, a localized definition of VMT equity can “improve the program’s public acceptance, political feasibility, and efficacy, and to ensure the program is in sync with the state’s broader social values and objectives.”⁴³
- B. **Embed equity into the project prioritization criteria and evaluation metrics.** Incorporating equity into the program implementation reduces the possibility of equity being sidelined. Consideration of equity should be built into the structure of a program to ensure this value remains present throughout the process. For example, equity can be added as a criterion during the VMT mitigation measure selection phase. The En Movimiento plan can be referenced as an example of prioritization metrics that reflect community goals.

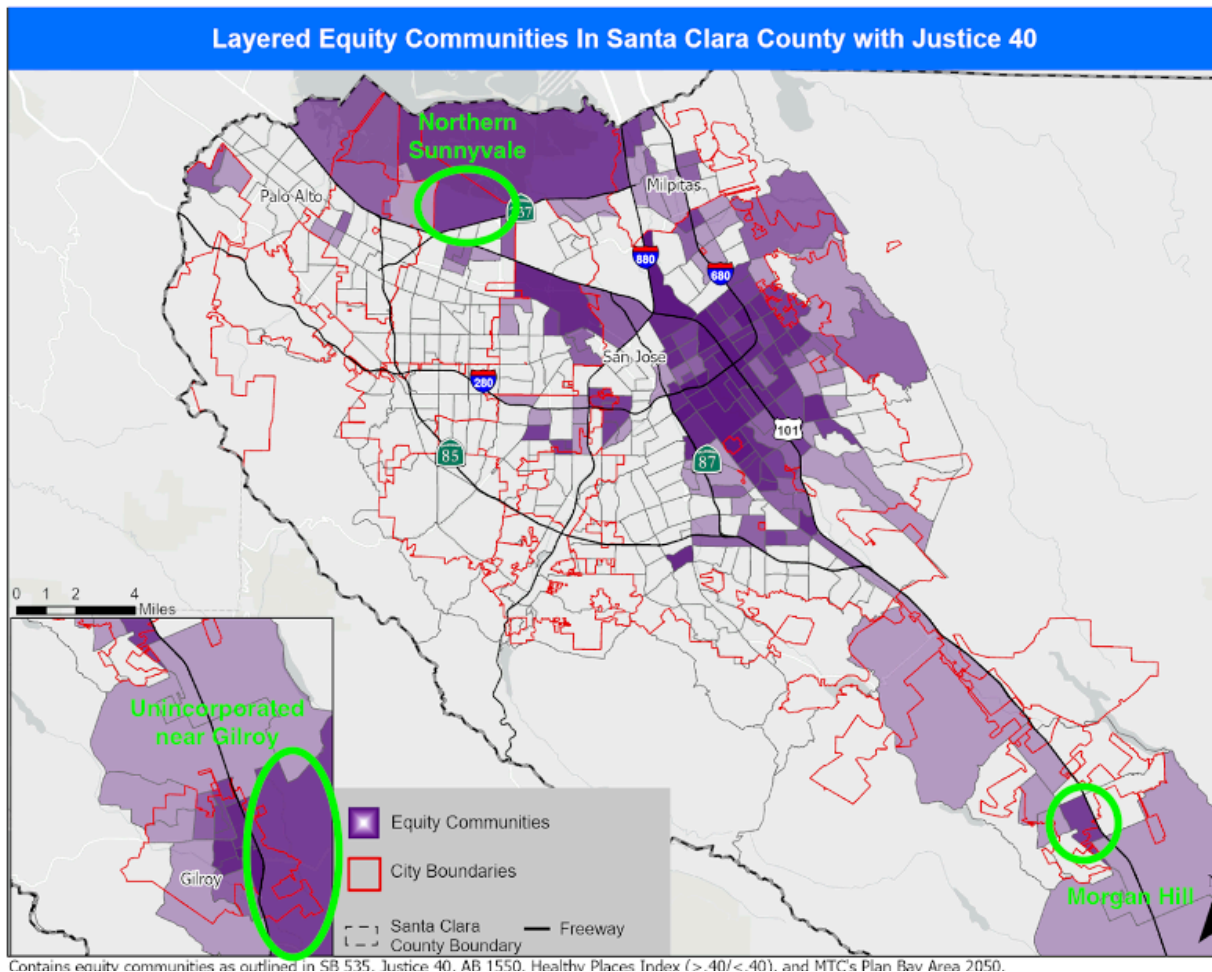
Embedding equity into the evaluation metrics also ensures that equity remains an item of focus throughout the program implementation process. As a reference, LA Metro accomplished this through the creation and use of the EPET tool, which allowed staff to evaluate programs through an equity lens. The Contra Costa VMT Mitigation Program Framework also provides an example

of including equity as a criterion for evaluating potential programs. The literature also supports employing a community-led engagement model for informing the project design and implementation processes to gather a diversity of community perspectives.

4.2 Recommendations Based on Spatial Analysis Findings

From the spatial analysis, students concluded that VTA is already making good progress in identifying and engaging equity communities in Alviso, East San José, Gilroy, and elsewhere through their tabling presence at multiple community events throughout the first phase of community engagement. Areas in Central and East San José as well as Gilroy consistently showed up as communities experiencing inequity and/or burdens according to multiple equity indices. Alviso also showed up as disadvantaged on four out of the five alternative definitions mapped for spatial analysis. Students, and the research team through continued analysis, identified the circled areas in Figure 27 as additional areas that VTA should consider for focusing engagement efforts during program development and for project prioritization in the future.

Figure 27. Map with Layered Equity Communities Including MTC EPCs, AB 1550, SB 535, HPI, and the Justice40 Tool with Added Annotations Identifying Recommended Additional Areas for Community Engagement in the Project and Project Prioritization in the Future



These are areas identified as equity communities by multiple equity indices, which indicates that residents of these areas are experiencing multiple dimensions of inequity and burdens. These areas are also identified as high-VMT areas. Dr. Alexander’s report on safeguarding equity in VMT mitigation suggests, “a combination of access to compact places, high-quality microscale urban design features, and transit access is especially important for mitigating VMT in low-income communities and ensuring equity” (Alexander et al. 2021, 65). VTA should consider further engaging these communities to determine transportation needs for the areas and working with the cities and the County to determine whether there are any sites within these areas that would benefit from VMT mitigating transportation solutions.

VTA can also conduct further analysis using the maps for the following purposes:

- A. **Use findings regarding the most prominent inequities and burdens facing communities across the county, as identified by the various equity indices, to inform the process of developing a localized definition of VMT equity.** A more in-depth understanding of the degree to which communities are experiencing inequities and burdens, and how these areas overlap with high- and low-VMT areas, can help create a better understanding of how inequity and burdens are distributed or concentrated in different neighborhoods. This can aid with the process of developing a localized definition of VMT equity that reflects community needs and priorities.
- B. **Look further into areas identified as low-VMT and burdened according to SB 535, Caltrans EQI, and Justice40.** In intersecting low- and high-VMT data with the SB 535, EQI, and Justice40 maps, students and the research team observed that a considerable number of areas showed up as low-VMT and burdened by pollution and/or transportation impacts. For SB 535, this indicates that those areas are low-VMT, yet the residents may be disproportionately burdened by pollution. For the EQI and Justice40, this could mean that the low-VMT areas identified as transportation-burdened may be overexposed to traffic impacts or they could be areas with poor access to destinations.

Due to the limitations discussed in the spatial analysis findings, the research team recommends that the VTA project team further explores the Caltrans EQI traffic exposure and access to destination screens as well as the Justice40 tool to distinguish areas identified as transportation and pollution burdened. Further exploration can help determine the level of pollution and/or transportation burden the identified equity communities are facing. Particularly for low-VMT areas identified by the Justice40 tool and the Caltrans EQI as being transportation insecure or having poor access to destinations, it is recommended that VTA investigate these areas further to determine whether the areas are isolated and may benefit from improved transportation solutions to increase connectivity.

4.3 Recommendations for Community Engagement

The research team's analysis of data collected by the students shows that VTA's efforts to equitably engage the community during the first phase of community engagement for the Equitable VMT Mitigation Program were successful in many areas. VTA made great use of surveys and focus groups and had an excellent public meeting approach. The VTA project team also consistently made efforts to make engagement materials and opportunities accessible in prominent non-English languages spoken in the community. Additionally, the Virtual Community Meeting #1 and the CBO focus group sessions were examples of dynamic forums where participants had ample opportunities to share their thoughts and concerns as well as ask clarifying questions. Lastly, VTA dedicated a significant amount of time and effort to being present at community events and festivals in many EPCs, which demonstrated their commitment to making the engagement process easier for members of these communities.

VTA's engagement practices could be improved in the following areas:

- A. **The font color and size used on the tabling boards could be adjusted to improve visibility, particularly in outdoor settings.**
- B. **Tabling boards could make use of more images to convey messages in lieu of text and could also be set up in an intuitive order so members of the public are able to walk through and grasp concepts on their own.** While students acknowledge the importance of providing the project information in multiple languages to reach non-English speaking audiences, including multiple translations on a single board can lead to a cluttered design. Images are oftentimes used to convey messages that can be universally understood, regardless of the language spoken. The use of more images and positioning the boards in an intuitive order may help improve understanding among community members without the need for tabling staff to elaborate. This can create more room for in-depth discussions after community members have an understanding of the project's goals.
- C. **VTA could better utilize digital platforms and social media as a communication channel.** This may help VTA reach a broader audience and open an additional channel of communication with the public. For example, a social media platform can be used to host a forum for project discussion and feedback between VTA and the public. Another example is developing a public comment section on the project website where members of the public could submit their ideas and feedback on the project.
- D. **Some elements of the public-facing project materials could be simplified to improve understanding among non-technical audiences.** Student feedback on VTA's community engagement materials and public-facing project materials emphasized a need to improve the communication of materials to non-technical audiences. For example, students felt that the piggy bank flowchart on the project website and tabling boards lacked context, especially for technical audiences. Students also felt the project website sections discussing

the purpose and background of the program could be simplified for better understanding among general audiences.

4.4 Recommendations Based on Stakeholder Interviews

Through the stakeholder interviews, students were able to gather more in-depth responses from community members and CBO representatives regarding their thoughts on community transportation needs, new development concerns, and the level of support for development contributions towards VMT mitigation measures. The following are key themes that emerged from the stakeholder interviews:

Respondents consistently cited improved connectivity, efficiency, and competitiveness of public transit as a top transportation need. Increased safety and convenience of alternative modes were also mentioned as key elements for drawing people away from primarily driving.

Many respondents mentioned congestion and harm to existing residents as major issues stemming from new developments.

Respondents generally supported the concept of funding VMT mitigating measures for the community with development contributions, but major concerns included the potential impact on housing development costs and ensuring transparency in funding allocation and project selection.

Based on the themes that emerged from the stakeholder interviews completed by both student groups, the research team recommends the following:

- A. **Invest in public transit improvements to create a better-connected and more reliable system as this will make public transit more convenient and increase the attractiveness of this mode.** The shortfalls of the County's current public transportation system were a prominent point of discussion among nearly all interviewees.
- B. **Leverage prominent concerns about increased congestion and harm to existing residents from new development to garner additional support for the Equitable VMT Mitigation Program.** The main concerns surrounding new developments gathered from the interview responses included increased congestion and harm to existing residents, which are key issues that the Equitable VMT Mitigation Program could help address. To garner additional support for the program, VTA should emphasize the ways in which this project aims to reduce the amount of driving and increase equity throughout the county by way of equitably distributed transportation solutions. This can include better educating the public about the co-benefits of a well-connected transportation system that caters to all modes, and how implementation of this program can help to achieve that.
- C. **Incorporate information in the project messaging and/or educational materials regarding the potential for development contributions towards VMT mitigation measures to reduce**

uncertainty in the environmental review process. A frequently voiced concern among interviewees was that additional development costs could arise from requesting development contributions towards VMT mitigation measures. Some interviewees were concerned that additional costs could discourage development or translate to increased rent prices. Although development and housing costs are beyond VTA's scope and control, the agency can address and ease some of these concerns by including information in project messaging about how the added costs could be balanced out by saving developers time and money, because contributions to VMT mitigation measures can reduce uncertainty during the environmental review and approval process.

D. Develop an informative and implementable accountability plan. In the project implementation stage, an accountability plan functions to ensure a program is being administered ethically and also provides a way to measure program performance. An implementable accountability plan, which is supported by the literature review as a best practice, can address some of the concerns regarding transparency and the potential mishandling of funds that were voiced during the stakeholder interviews. This would support good governance and relationships with other stakeholders and the community. The plan can also aid in protecting equity within the program implementation process if equity indicators are elements of the plan. In the context of a VMT mitigation program, accurate VMT measurement has been a challenge due to the fact that VMT tools and data sources are still evolving. The accountability plan should include tools for verifying VMT measurements to ensure the accuracy of the measurements, as inaccurate measurements could harm program integrity.

4.5 Recommendations Matrix

Table 6 summarizes the main recommendations of the students and research team, along with a qualitative assessment of the ease/difficulty of implementing, the time frame to implement, and the degree of equity contributions for each recommendation.

Table 6. Study Recommendations Matrix

Recommendation	Administrative Ease	Time Frame to Implement	Degree of Equity Contributions
<p>Develop and adopt a localized definition of VMT Equity using the spatial analysis findings and community input.</p>	<p>Somewhat challenging to implement – may require coordination with local partners.</p>	<p>Short-to-medium term: developing a localized definition of VMT equity should be a process that evolves with the community engagement phases.</p> <p>Long-term: Moving towards program implementation, it may be necessary to re-evaluate the definition to ensure that it still fits the community needs.</p>	<p>✓✓✓ - Potential to improve equity framework of program; can help to achieve recommended best practices for equitable VMT mitigation.</p>
<p>Develop an informative and implementable accountability plan.</p>	<p>Depends on the tools available. Building a plan from scratch could be initially challenging and may require some trial and error to develop the right program.</p> <p>If tools are already in place, building and updating the plan should be a streamlined process.</p>	<p>Initial development is short-term: this should be started early in the program design process.</p> <p>Implementation is long-term: implementation should remain a consistent and ongoing commitment and the plan should be updated as context changes over time.</p>	<p>✓✓ - Accountability plans can help with easing community concerns, gaining public trust, and may even contribute to program equity.</p>
<p>Embed equity into the project prioritization criteria and evaluation metrics.</p>	<p>Depends on the tools available. Developing equitable criteria and evaluation metrics from scratch could be initially challenging and may require some trial and error to identify the right criteria and metrics.</p> <p>If tools are already in place, drafting and updating the criteria</p>	<p>Initial development is short-term: this should be started early in the program design process.</p> <p>Implementation is long-term: implementation should remain a consistent and ongoing commitment and criteria should be updated as context changes over time.</p>	<p>✓✓✓ - This is directly focused on incorporating equity considerations into the program design and framework.</p>

Recommendation	Administrative Ease	Time Frame to Implement	Degree of Equity Contributions
	and metrics should be a streamlined process.		
Invest in public transit improvements projects by improving frequency, reducing costs, enhancing perceptions of safety, and promoting time competitiveness with car travel.	Challenging to implement – this is a major investment that will be costly and will require significant changes to public transit infrastructure and services.	Long-term: requires significant funding and changes to infrastructure and services.	✓✓ - Potential for increased access and substantial VMT reductions, which can be focused towards equity communities.
Consider areas in Morgan Hill, northern Sunnyvale, and the unincorporated areas surrounding Gilroy, which were identified as high-VMT equity communities, for additional community engagement and project prioritization.	Community engagement – could be challenging to implement if no events or opportunities arise for VTA to engage; project prioritization – not too challenging to conduct further analysis.	Mid-to-long-term: initial analysis and outreach will not require a substantial time commitment. Choosing areas for project prioritization would be a long-term process that begins in VTA’s current project but would continue into future implementation steps.	✓✓✓ - Potential to improve engagement for areas identified as disadvantaged by multiple metrics. Consideration of sites for VMT mitigation solutions may lead to enhanced mobility and connectivity for disadvantaged communities if projects are implemented.
Improve visual communication of community engagement materials to appeal to audiences and enhance understanding for all groups.	Easy to implement.	Short-term: these are quick changes that would be implemented during the program development process.	✓✓✓ - Potential to improve accessibility of the community engagement process for all groups.
Utilize digital platforms to broaden communication channels and foster dialogue with the community.	Somewhat challenging to implement – would require ongoing monitoring.	Medium-term: would require ongoing management throughout the project development and implementation phases.	✓✓ - Potential to reach a broader audience and open another communication channel.
✓ - For recommendations that contribute minimally to equity or that only impact a small subset of the community.			

Recommendation	Administrative Ease	Time Frame to Implement	Degree of Equity Contributions
<p>✓✓✓ - For recommendations that are directly focused on promoting equity and/or involve engagement with equity communities.</p>			

Appendix A

Methodology for Mapmaking

VMT data was provided by the VTA team. The data was originally produced from the VTA travel demand model and was extracted and summarized by VTA's consultant, Fehr & Peers. The process began with defining what constitutes high vs. low VMT. Per the VTA team's request, the cut-off was set to be 85% of the baseline for the 2015 variables from the dataset, so if a certain number was lower or higher than 85% of their baseline variable, it would be marked as either low-VMT or high-VMT, respectively.

After preparing this data, map layers from the equity indices were overlaid onto the VMT layer. Using the "Select by Location" feature, an intersecting relationship between the VMT and equity indices could be established, selecting tracts on the VMT layer. Selected attributes were then separated into their respective layers, one for inside the equity community, and one for outside. The symbology was then changed to reflect the level of VMT impact and to denote if the attribute was in or out of an equity priority area. The original color chart is as follows:

Color Chart

	Low VMT (#FF7F7F)	High VMT (#E60000)
In Equity (#005CE6)	Low-In (#8c6fae)	High-In (#7e2968)
Out Equity (#BEE8FE)	Low-Out (#FF7F7F)	High-Out (#E60000)

To create the layered maps, equity community dataset layers from SB 535, Justice 40, MTC's Plan Bay Area 2050, AB 1550, Healthy Places Index, and Caltrans EQI were either imported or created from existing data. Each layer was adjusted via the "clip" tool in ArcGIS Pro to only show data which appeared in the boundaries of Santa Clara County. The symbology for each layer was then changed to have no outline color, with a fill color hex of #4C0073 and 65% transparency. The layers were then stacked on top of each other to give the desired gradient effect. The Justice 40 layer and Caltrans EQI layers are not used with each other and appear on separate maps to conserve visual clarity.

VTA provided students with a layout template to use when finalizing the maps, but some changes were made to the final layouts in order to increase readability. These changes mostly just involved the resizing of text in the map legend as well as some text size updates.

Appendix B

VTA Equitable VMT Mitigation Program for Santa Clara County Web-Based Survey (English Version)

Web Survey of Community Travel Behaviors

We need your input! Please respond to the survey before Friday December 8, 2023.

Over the next year, VTA will be developing the framework for an [Equitable Vehicle Miles Traveled \(VMT\) Mitigation Program](#) for Santa Clara County. As a key part of this process, VTA is requesting input from community members like you to learn how we travel. The survey will ask you how you travel in Santa Clara County and around the region, for what purpose, and what challenges you face when traveling. Your input will help us identify ways to improve travel options in Santa Clara County and help us shape the project recommendations in Spring and Summer 2024. As a thank you for completing the survey, VTA is giving out five Clipper cards pre-loaded with \$50 in Clipper cash that can be used on VTA, Caltrain, BART or other transit services. Complete the survey and add your email address for a chance to win.

This survey should take about 5-10 minutes to complete. Draft or partial responses will be saved if the survey is open on your screen. Thank you in advance for your time!

Regular Trips

Do you have a regular trip that you make at least 2 days per week? Please select the options that you do most often. Required

Yes, I travel to work at least 2 days per week

Yes, I travel to school for myself or for school drop off at least 2 days per week

Yes, I travel to a senior center/community center at least 2 days per week

No, I have no regular location that I travel to at least 2 days per week

Yes, I travel to another location at least 2 days per week (List):

How do you normally travel for your regular trip? (Select up to 2 options)

Driving Alone

Carpooling/Vanpooling

Walking

Bicycling

Riding a Scooter/Electric Scooter

Riding VTA Bus or Light Rail

Riding Caltrain/BART

Using Rideshare (e.g., Uber/Lyft)

Other (please specify)

What is most important to you when choosing how to get around for your regular trip?

Cost/Affordability

Travel Time/Speed

Availability/Convenience of Location

Safety

Physical Abilities or Disabilities

Health Benefits/Desire for Exercise

COVID-19/Social Interaction

Reliability/Certainty/Stress Reduction

Helping the Environment

Other (please specify)

Occasional Trips

What are the primary ways you travel for occasional travel (such as getting groceries or visiting friends and relatives)? (Select up to 2 options) Required

Driving Alone

Carpooling/Vanpooling

Walking

Bicycling

Riding a Scooter/Electric Scooter

Riding VTA Bus or Light Rail

Riding Caltrain/BART

Using Rideshare (e.g., Uber/Lyft)

Other (please specify)

What reason is the most important to you when choosing how you travel for occasional trips (such as getting groceries or visiting friends and relatives)? Required

Cost/Affordability

Travel Time/Speed

Availability/Convenience of Location

Safety

Physical Abilities or Disabilities

Health Benefits/Desire for Exercise

COVID-19/Social Interaction

Reliability/Certainty/Stress Reduction

Helping the Environment

Other (please specify)

Please provide the zip code you live in Required

Interest in Non-Vehicle Travel Modes

How interested are you in trying the following forms of transportation? (1 being not at all interested to 4 being very interested)

Carshare (e.g., Zipcar or Turo Required

1 (Not at all interested)

2 (Slightly interested)

3 (Interested)

4 (Very interested)

I already use this regularly

Public Transportation Required

1 (Not at all interested)

2 (Slightly interested)

3 (Interested)

4 (Very interested)

I already use this regularly

Walking Required

1 (Not at all interested)

2 (Slightly interested)

3 (Interested)

4 (Very interested)

I already use this regularly

Bicycling Required

1 (Not at all interested)

2 (Slightly interested)

3 (Interested)

4 (Very interested)

I already use this regularly

Carpooling/Vanpooling Required

1 (Not at all interested)

2 (Slightly interested)

3 (Interested)

4 (Very interested)

I already use this regularly

Preference for Travel Modes

If you prefer not to use carshare (e.g., Zipcar/Turo) what are your top three reasons? Or if you do use carshare, what are three of your top issues? (Select up to 3 options) Required

Cost/Affordability

Travel Time/Speed

Need for Flexibility

Lack of Availability/Inconvenience in Location

Inability to Drive

Physical Abilities or Disabilities

Health Benefits/Desire for Exercise

COVID-19/Social Interaction

Safety Concerns

Lack of Car Seats, Bike Racks, or Other Specialized Travel Gear

Other (please specify)

If you prefer not to ride public transportation what are your top three reasons? Or if you do ride public transportation, what are three of your top issues? (Select up to 3 options) Required

Cost/Affordability

Travel Time/Speed

Dependability

Need for Flexibility

Lack of Availability/Inconvenience in Location

Inconvenience in Riding with Small Children

Infrequent Buses or Trains

Limited Hours of Service

Physical Abilities or Disabilities

Desire for Exercise

COVID-19/Social Interaction

Safety Concerns

Lack of Car Seats, Bike Racks, or Other Specialized Travel Gear

Other (please specify)

If you prefer not to walk what are your top three reasons? Or if you do walk, what are three of your top issues? (Select up to 3 options) Required

Distance

Lack of Adequate Sidewalks and/or Crosswalks

Lack of Shelter from Weather (e.g., trees, awning)

Travel Time/Speed

Need for Flexibility

Lack of Destinations to Walk to (e.g., work, shops, services)

Physical Abilities or Disabilities

COVID-19/Social Interaction

Safety Concerns

Other (please specify)

If you prefer not to bicycle what are your top three reasons? Or if you do bicycle, what are three of your top issues? (Select up to 3 options) Required

Cost/Affordability

Distance

Lack of Adequate Bike Lanes

Lack of Adequate and Secure Bike Parking

Travel Time/Speed

Need for Flexibility

Lack of Destinations to Bike to (e.g., work, shops, services)

Physical Abilities or Disabilities

COVID-19/Social Interaction

Safety Concerns

Other (please specify)

If you prefer not to carpool/vanpool what are your top three reasons? Or if you do carpool/vanpool, what are three of your top issues? (Select up to 3 options) Required

Cost/Affordability

Travel Time/Speed

Need for Flexibility

Inconvenient Location of Carpool/Vanpool Partners

Inability to Drive

Lack of Available Vehicle

Physical Abilities or Disabilities

Health Benefits/Desire for Exercise

COVID-19/Social Interaction

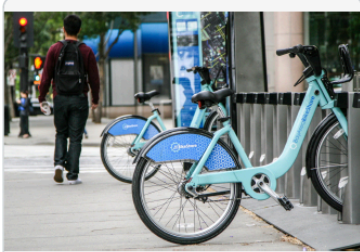
Safety Concerns

Other (please specify)

Types of Mitigation Measures

All of these options help to reduce driving and expand travel options.

Which of the following would make you drive less frequently? (Select up to 2 options) Required



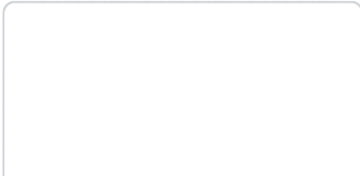
On-Demand Mobility

(e.g., bikeshare or carshare)



Biking and Walking Paths

(e.g., bike paths or sidewalks)





**Many Things To Do Close
By**

(e.g., Complete communities with medical offices, produce markets, affordable goods and services)



**Frequent and Fast Transit
Service**

(e.g., reliable, frequent, fast buses and trains)



**Transit, Bike, Carpool
Incentives**

(e.g., transit discounts and bike and carpool subsidies)



Change Travel Costs

(e.g., free transit and paying more for parking during busy hours)

Other (please specify)

Which of the following would you like to see more of in Santa Clara County? (Select up to 2 options) Required



On-Demand Mobility

(e.g., bikeshare or carshare)



Biking and Walking Paths

(e.g., bike paths or sidewalks)



Many Things To Do Close By

(e.g., Complete communities with medical offices, produce markets,



Frequent and Fast Transit Service

(e.g., reliable, frequent, fast buses and trains)

affordable goods and services)



Transit, Bike, Carpool Incentives

(e.g., transit discounts and bike and carpool subsidies)



Change Travel Costs

(e.g., free transit and paying more for parking during busy hours)

Other (please specify)

What are your biggest transportation challenges? Could the options you selected above help solve these challenges?

[Empty text box for user response]

Vehicle Access

Do you need access to a vehicle to meet your day-to-day needs? Required

Yes

No

How often you feel you have adequate access to a vehicle to meet your day-to-day needs? Required

Always

Sometimes

Rarely

Never

How many vehicles does your household own or lease? Required

0

1

2

3+

Demographics

What age range best described you?

less than or equal to 25 years old

26-35 years old

36-45 years old

46-55 years old

56-65 years old

66-75 years old

76-85 years old

greater than 86 years old

What race/ethnicity best describes you? (Select all that apply)

White

Black or African American

American Indian and Alaska Native

Asian

Native Hawaiian and Other Pacific Islander

Hispanic/Latino

Some other race

What gender do you identify with?

Male

Non-Binary

Female

Self-describe: List

What income range does your household fall into?

Less than \$24,999

\$25,000 to \$49,999

\$50,000 to \$74,999

\$75,000 to \$99,999

\$100,000 to \$149,999

\$150,000 or more

Do you have a story or comment to share? Please share any other information about your travel needs, challenges, and priorities that you would like the team to be aware of.

Thank you!

You can also email further thoughts or questions to VTA Community Outreach at community.outreach@vta.org. Please visit [VTA's project page](#) for a list of our upcoming community events, or to sign up for our email list.

VTA is giving out five Clipper cards pre-loaded with \$50 in Clipper cash that can be used on VTA, Caltrain, BART or other transit services. Enter your email address for a chance to win.

If you would like your results to the survey emailed to you, please enter you email address below.

Appendix C

Stakeholder Interview Guide from VTA

Please adapt as you see fit, but contact VTA staff if you want to ask very different questions than those in #3, #4, and #5.

For Representatives of Organizations:

Hello! Thank you for agreeing to talk to me about VTA's study to reduce the amount of driving generated by land development projects in Santa Clara County. As you know, I am a student at San Jose State University and we are partnering with VTA to gain community insights about this topic. Do you mind if I record this interview for note-taking purposes? We won't use your name when we write up our findings, but we would like to note that we spoke with a representative from [NAME OF ORGANIZATION] if that's alright.

- If the respondent agrees to recording, begin recording now.

Thank you, the recording has started.

To begin, we'd like to learn some general things about you.

1. Can you tell me a bit about what your organization does?
2. Can you tell me about what your role is in the organization?

Now I'd like to ask you some questions related to transportation needs and development projects.

3. What are some of the most important transportation needs you see in this area – Santa Clara County?
(If the interviewee needs prompting, you can suggest things like improving safety, having more options, reducing costs, providing incentives, making things more environmentally friendly.)
4. What are some reactions you have when you see new developments happening in your area – for instance, new housing or a new office building?
5. New developments often help pay for transportation improvements. What do you think about having developments pay a little more to address some of the transportation needs you mentioned in Question #3?

- a) Probe: VTA is looking at ways for developments and cities to work together to pay for transportation improvements. For instance, a development project in one place might pay for transportation improvements in another part of the city, or in a different city.
 - b) Probe: What opportunities, if any, do you see with this kind of arrangement?
 - c) Probe: What concerns, if any, do you have about this kind of arrangement?
 - d) *If interviewee has concerns:* Are there things that could be done to address your concerns?
 - e) Probe: What do you think VTA's role should be in this area?
6. Is there anything else you'd like to share regarding this project?
7. Is there anyone else or any other organizations you think we should talk to?

For Members of the Public:

The interview flow for members of the public would be similar to the stakeholder flow above, except that you would just ask basic information about the interviewee such as what zip code they live in (which helps us determine whether they live in an Equity Priority Community), whether they are employed / student / volunteer / retired, and how they typically get around (drive alone, carpool, transit, bike, walk, other). Depending on the amount of time you have with the individual, you could shorten the interview and simply ask Questions 3, 4, and 5 (without any probes / follow-ups).

Appendix D

Tabling Boards from VTA

Equitable VMT Mitigation Program

Programa de mitigación equitativa VMT
Chương Trình Giảm Thiểu Hợp Lý VMT
公平VMT緩解計劃

Reducing Driving From Development Projects


Reducir la necesidad de conducir vehículos desde los proyectos de desarrollo
Giảm Việc Lái Xe Từ Các Dự Án Phát Triển
減少開發項目的駕駛量

Equity is a guiding principle as we do this work. What does an equitable transportation system look like to you?







La equidad es un principio rector que nos guía en este trabajo. En su criterio, ¿cómo debería ser un sistema de transporte equitativo?


Công bằng là một nguyên tắc hướng dẫn khi chúng tôi thực hiện công việc này. Mặt hệ thống giao thông công bằng là như thế nào đối với quý vị?

公平是我們進行這項工作的指導原則。您認為公平的交通系統是什麼樣的？




What benefit is most important to you?
¿Qué beneficio es más importante para usted?
Lợi ích nào là quan trọng nhất đối với quý vị?
什麼好處對您來說最重要？

 Better Air Quality Mejor calidad del aire Chất lượng không khí tốt hơn 更好的空氣質量	 Less Noise Menos ruido Ít ruidos 減少噪音	 More Ways to Travel Más formas de viajar Nhiều cách thức đi lại 更多旅行方式
 More Active Community Comunidad más activa Cộng đồng năng động hơn 更活躍的社區	 Safer Streets Calles más seguras Đường phố an toàn hơn 更安全街道	 Other Otro Khác 其他



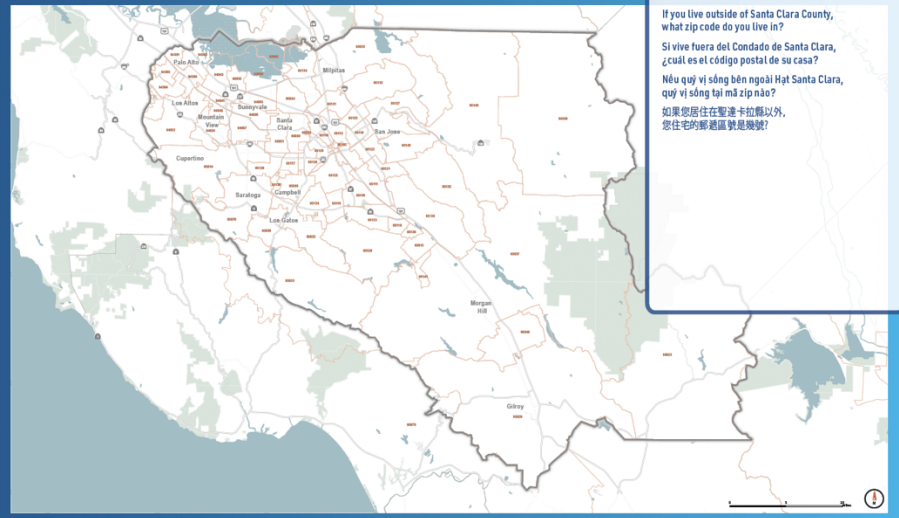
Sign up for updates! 註冊以獲取更新
 (Regístrate para recibir actualizaciones) (Đăng ký để nhận thông tin cập nhật)
vta.org/equitablevmt




What neighborhood do you live in?

¿En qué vecindario vive?
 Quý vị sống ở khu phố nào?
 您住在哪個街區？

If you live outside of Santa Clara County, what zip code do you live in?
 Si vive fuera del Condado de Santa Clara, ¿cuál es el código postal de su casa?
 Nếu quý vị sống bên ngoài Hạt Santa Clara, quý vị sống tại mã zip nào?
 如果您居住在聖克拉拉縣以外，您住宅的郵遞區號是幾號？



Sign up for updates! 註冊以獲取更新
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vta.org/equitablevmt

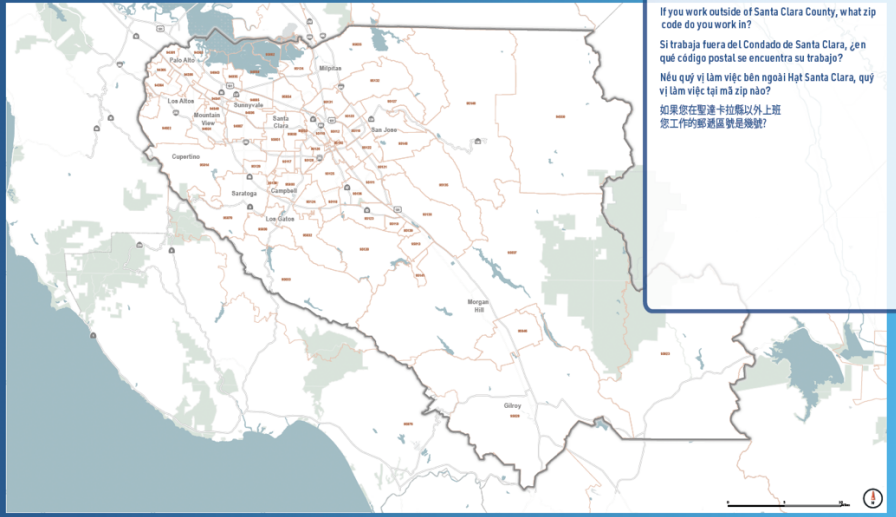


MINETA TRANSPORTATION INSTITUTE

68

How do you get to work?/ Where do you Work?

¿Cómo llega al trabajo? ¿Dónde trabaja?
 Quý vị đến chỗ làm bằng cách nào? Quý vị làm việc ở đâu?
 您如何通勤上班? 您在哪裡工作?



If you work outside of Santa Clara County, what zip code do you work in?
 Si trabaja fuera del Condado de Santa Clara, ¿en qué código postal se encuentra su trabajo?
 Nếu quý vị làm việc bên ngoài Hạt Santa Clara, quý vị làm việc tại mã zip nào?
 如果您在聖克拉拉縣以外上班，您工作的郵遞區號是幾號?

Sign up for updates! 註冊獲取更新
 Regístrate para recibir actualizaciones! 註冊獲取更新
vta.org/equitablvmnt Valley Transportation Authority

Which option helps solve your biggest transportation challenges?

¿Cuál de estas opciones le ayuda a resolver sus mayores dificultades de transporte?
 Lựa chọn nào giúp giải quyết những khó khăn lớn nhất của quý vị về giao thông?
 哪個選項有助於解決您最大的交通運輸挑戰?



On-Demand Mobility
 Movilidad a través de servicios por pedido
 Đi lại dùng nhiều phương tiện khác nhau
 按需交通工具



Biking and Walking Paths
 Vías para caminar y utilizar bicicleta
 Lối đi xe đạp và đi bộ
 腳踏車道和步道



Many Things To Do Close By
 Muchas cosas para hacer cerca
 Nhiều điều cần làm gần đó
 附近有很多可以做的事



Frequent and Fast Transit Service
 Servicio de transporte público frecuente y rápido
 Dịch vụ xe công cộng thường xuyên và nhanh chóng
 頻繁、快速的交通服務



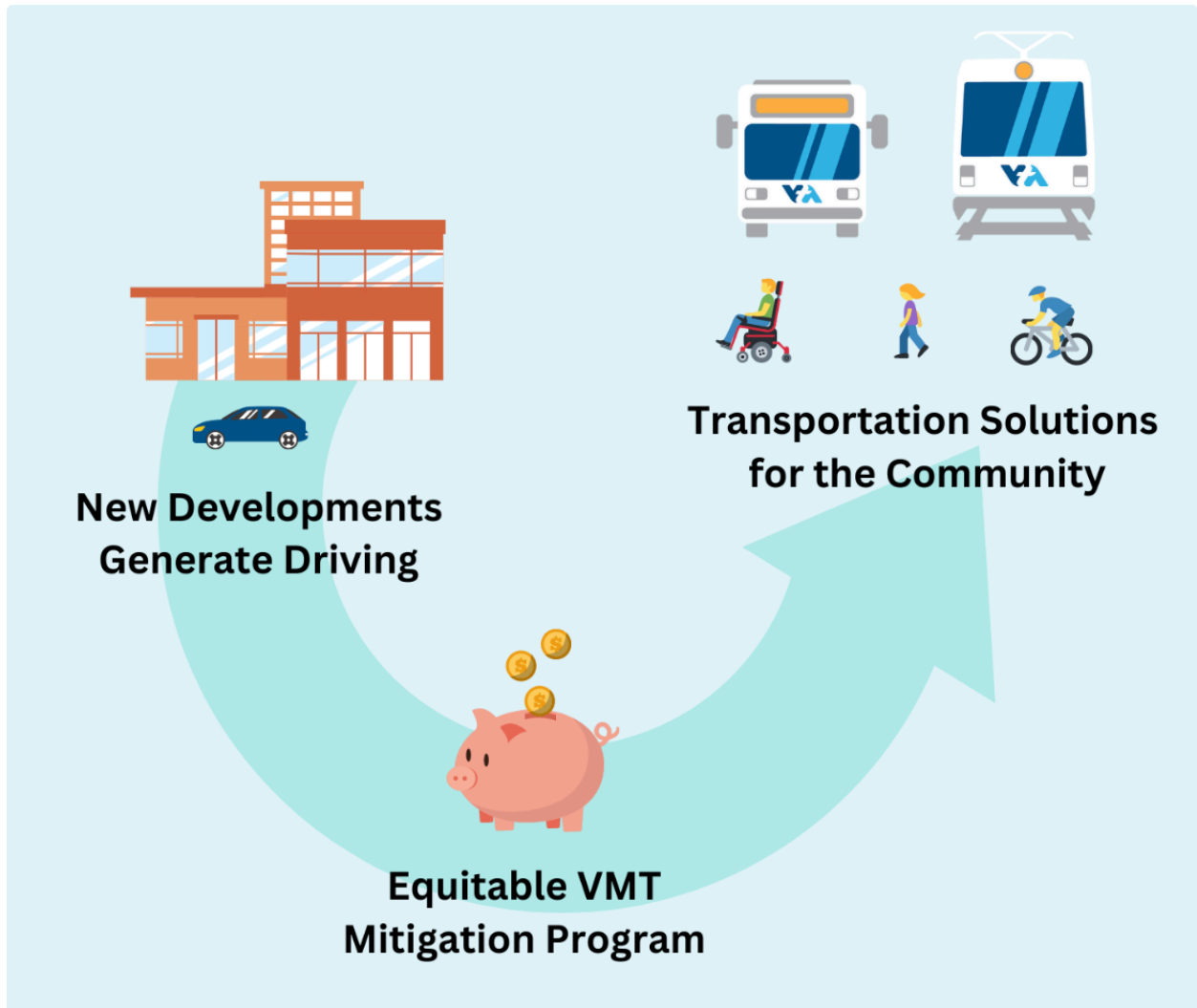
Transit, Bike & Carpool Incentives
 Incentivos para utilizar el transporte público, bicicleta y hacer viajes compartidos
 Ưu đãi khi đi xe công cộng, xe đạp & đi chung xe hơi
 交通、腳踏車和共乘獎勵



Change Travel Cost
 Cambiar el costo de viaje
 Thay đổi chi phí đi lại
 改變行程費用

Other
 Otro
 Khác
 其他

Sign up for updates! 註冊獲取更新
 Regístrate para recibir actualizaciones! 註冊獲取更新
vta.org/equitablvmnt Valley Transportation Authority



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