



East San José Multimodal Transportation Improvement Plan (ESJ MTIP) En Movimiento

Final Report

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Kimley»»Horn

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- A. Previous Planning Efforts - Recommendations Summary
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1. EXECUTIVE SUMMARY

In 2011, the City of San José passed its most recent General Plan, Envision San José 2040. The ambitious document spells out a vision for the future of California’s third-largest city, one characterized by sustainable growth, economic vibrancy, and preservation of the city’s historical and natural resources. The East San José Multimodal Transportation Improvement Plan (ESJ MTIP) reflects the City’s focus on implementing solutions that align with community-oriented strategies. The ESJ MTIP (also known as En Movimiento) study area is based around six East San José Urban Villages, where the plan proposes strategies and infrastructure investments supporting transit, walking, and bicycling.

By reducing the need for private automobile ownership and decreasing the share of trips made by driving alone, the City can provide its residents and workers with more affordable mobility options, improved health and quality of life, and better access to jobs. The ESJ MTIP focused on identifying implementable and locally-supported transportation improvements for a diverse community, engaging residents and developing consensus around a set of implementable solutions for the East San José area. This first of its kind MTIP in the City of San José goes beyond traditional conceptual plans to offer a prioritized list of projects, implementation strategies and cost estimates.

Chapter 2 introduces the project, defines a multimodal transportation improvement plan, provides the study limits and key characteristics of the study area.

Chapter 3 describes the ESJ MTIP project goals and public involvement process, including a summary from each of the four rounds of outreach that were conducted as part of the project.

Chapter 4 lists the goals that were informed by a combination of input from community members, City goals and policies, and considerations necessary to implement a project.

Chapter 5 highlights the previous planning efforts that have taken place in the study area and details the existing and planned multi-modal transportation network.

Chapter 6 defines the method for addressing gaps in the multimodal transportation network. Addressed in this chapter are the existing roadway typology, City commute mode split targets, and proposed street typology.

Chapter 7 details the process for how the concepts were developed and categorized into the proposed classifications of Transit Priority, Major Streets, Bike Boulevards, Connections to BART, US-101 Overcrossings, and On-Street Trail Crossings projects. A description and the benefits of each project is provided along with the location of each project.

Chapter 8 explains the prioritization tool used to rank each of the projects. This includes the current prioritized list of projects.

Chapter 9 establishes the method by which projects may be implemented. To note is that this will be an ongoing and iterative process with projects being reranked as new information becomes available.

2. INTRODUCTION

As the unofficial capital of Silicon Valley, the City of San José has seen significant prosperity and employment growth over the past decades but has also been presented with a number of challenges. The continued economic growth within the City and throughout Silicon Valley has led to increased traffic congestion, which has risen to unsustainable levels. At the same time, the region has seen a proliferation of new private mobility options, ranging from ride-hailing services to shared electric scooters, which have the potential to support, or siphon ridership from, long-planned major public-sector capital investments such as the Alum Rock-Santa Clara Bus Rapid Transit (BRT) route and BART Silicon Valley Extension.

In order to transition from planning documents to project implementation, the City created the East San José Multimodal Transportation Improvement Plan (ESJ MTIP) to identify and prioritize specific projects to improve the mobility of East San José residents. The ESJ MTIP (also known as *En Movimiento*) study area is based around six East San José Urban Villages, where the plan proposes strategies and infrastructure investments supporting transit, walking, and bicycling.

By reducing the need for private automobile ownership and decreasing the share of trips made by driving alone, the City can provide its residents and workers with more affordable mobility options, improved health and quality of life, and better access to jobs.

a. What is a Multimodal Transportation Improvement Plan (MTIP)?

An MTIP is an area-based prioritized list of projects and programs intended to facilitate realization of goals and objectives identified in a long-range plan. Projects and programs included in an MTIP are defined and designed enough to develop reasonable cost estimates. An MTIP is an intermediate step between conceptual transportation plans and programming of the projects and programs included in, or implied by, the conceptual transportation plans.

The ESJ MTIP focused on identifying implementable and locally-supported transportation options for a diverse community, engaging residents and developing consensus around a set of implementable solutions for the East San José area. The purpose of the final report is to summarize the project process and design concepts developed as part of this project.

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b. Study Limits

The East San José area is made up of six adjacent Urban Villages and their surrounding neighborhoods: East Santa Clara Street, Roosevelt Park, 24th and William, Five Wounds, Little Portugal, and Alum Rock Avenue. The City of San José has worked with community members to create plans for each of these Urban Villages, although the depth and breadth of those plans, particularly relating to multimodal transportation improvements, varies considerably. The ESJ MTIP reflects coordinated effort to advance previous and newly-vetted concepts into implementable designs.

The East San José study area covers a quarter-mile from the boundaries of the six Urban Villages and a one-mile radius from the planned 28th Street/Little Portugal BART station. The study area, along with the Urban Village boundaries and key destinations, is shown in **Figure 1**.

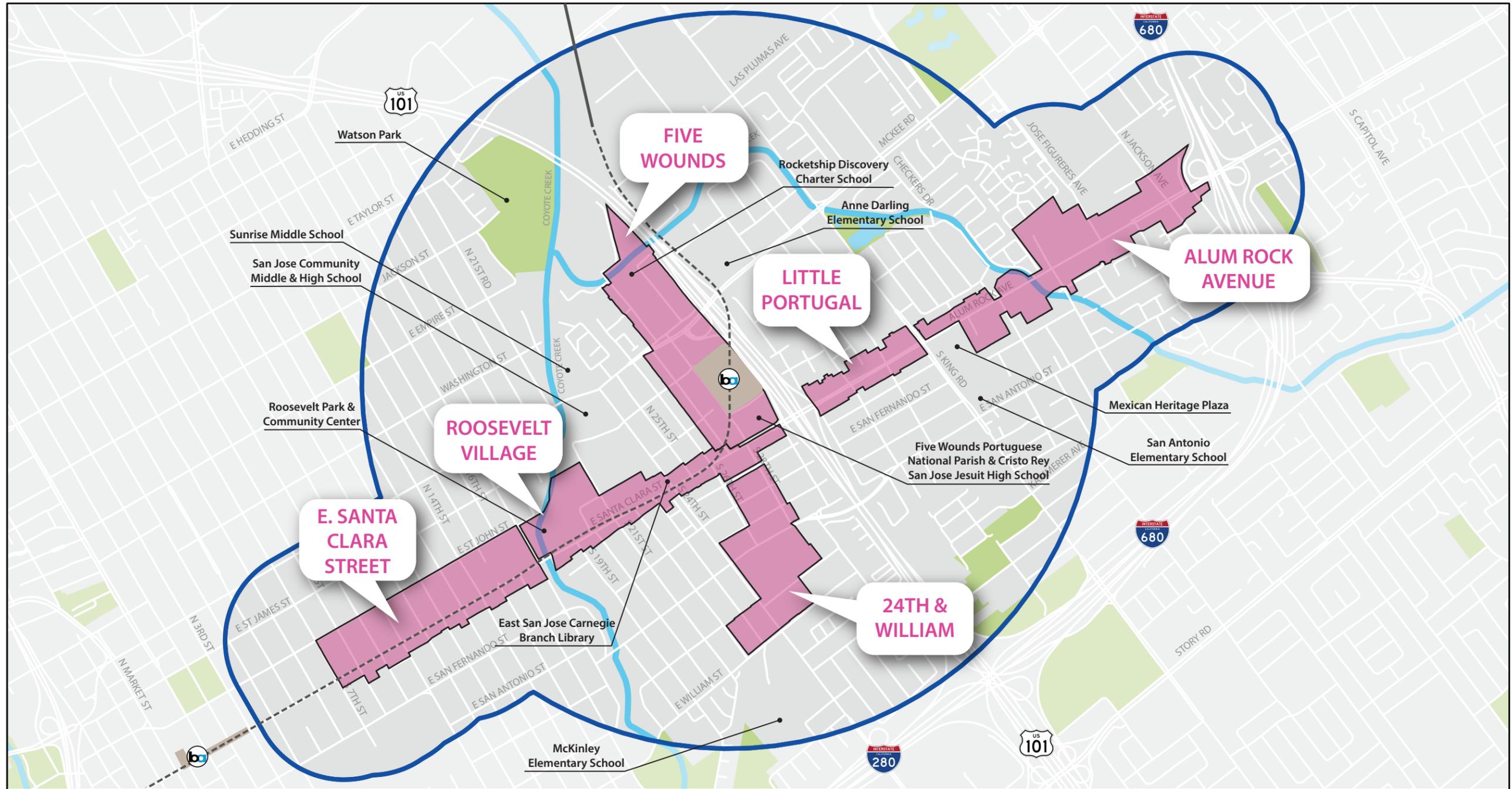
c. Characteristics of the Study Area

i. Key Destinations and Land Uses

There are many key destinations within the East San José study area, including historic cultural institutions, schools, and parks. Immediately to the west of US-101 is the Five Wounds Portuguese National Parish; to its east is the Mexican Heritage Plaza. Along E. Santa Clara Street are East San José Carnegie Branch Library and Roosevelt Park & Community Center. The study area also includes San José Community Middle and High School, Sunrise Middle School, and Rocketship Discovery Charter School.

The zoning of the study area is largely characterized by commercial zones centered on the major east-west corridor of E. Santa Clara Street/Alum Rock Avenue with single- and multi-family zones on streets perpendicular to E. Santa Clara Street/Alum Rock Avenue. The east-west corridor of E. Julian Street/McKee Road also has street-facing commercial uses, though more of it is concentrated on the McKee Road segment east of US-101. Light and heavy industrial zones exist adjacent to the former Southern Pacific rail right-of-way, which runs roughly north-south through the study area.

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LEGEND

- VTA's BART Phase I Extension Alignment
- b- VTA's BART Phase II Extension Alignment
- VTA's BART Phase II Stations
- East San José MTIP Boundary
- Urban Village Boundaries



URBAN VILLAGES & KEY DESTINATIONS • FIGURE 1

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ii. Major Routes

E. Santa Clara Street/Alum Rock Avenue, categorized by City of San José as a Grand Boulevard, is the major east-west thoroughfare within the study area. To the west of US-101, it is a 5-lane undivided roadway with a center two-way left-turn lane (TWLTL). To the east of US-101, it is a 6-lane divided roadway, of which, east of 34th Street, two lanes are used by the median-running 522 Rapid BRT. In addition to the 522 Rapid, the corridor is served by the Local 22 and 23 bus routes. The street has relatively wide sidewalks and no existing bicycle facilities within the study area.

E. Julian Street/McKee Road runs roughly parallel to E. Santa Clara Street/Alum Rock Avenue approximately one-third of a mile to the north. Between US-101 and N. King Road, McKee Road, classified as a City Connector Street, varies between a 4-lane divided and 5-lane undivided roadway with a center TWLTL. To the east of N. King Road, McKee Road is a 6-lane divided roadway. West of Coyote Creek, E. Julian Street, classified as a Local Connector Street, narrows to become a 2-lane Local Connector street with on-street parking. The Local 64 bus route operates on E. Julian Street/McKee Road. The street has adequate sidewalks and no existing bicycle facilities within the study area.

East of US-101, the major north-south roadways are King Road and Jackson Avenue, both of which are classified as City Connector streets. King Road is a 5-lane undivided roadway with a center TWLTL and Jackson Street is a 4-lane divided roadway. Both streets have buffered Class II bike lanes. King Road is served by the Local 22 and 77 bus routes; Jackson Avenue is served by the Local 70 route. Both have adequate sidewalks within the study area.

3. ENGAGEMENT

The City and project team sought to develop a community-driven transportation plan to synthesize and advance past planning efforts, reflect the priorities of the culturally diverse neighborhoods of East San José, and define a path forward for implementing multimodal transportation improvements within the study area. A successful ESJ MTIP depends on an inclusive and equitable public outreach process to solicit input and guidance from key individuals and organizations, and a broad cross-section of East San José’s communities and stakeholder groups. This project also drew upon outreach and recommendations developed as part of on-going and previously completed transportation projects in the study area. Close collaboration between city staff, the consultant team, and other current planning efforts was essential throughout the ESJ MTIP development process.

a. ESJ MTIP Project Goals

To support the community-driven planning process with inclusive and equitable outreach while simultaneously advancing existing policies and addressing practical implementation realities, the following goals have guided the ESJ MTIP project from the start:

- **Reflect community input** – Incorporate feedback that community members have shared with the City and project team during previous East San Jose planning efforts, and throughout the outreach process.
- **Support complementary City policies** – Address existing City goals and policies from past and ongoing planning efforts, including the Urban Village Plans, the City’s General Plan, Vision Zero San José, the City’s Climate Action Plan, Bike Plan, and ADA Sidewalk Transition Plan.
- **Consider project implementation needs** – Include practical details necessary to build street improvements, so recommendations turn into real projects in the East San José neighborhood.

b. Public Involvement Plan

The project team developed a Public Involvement Plan (PIP) that outlined strategies to involve and engage East San José’s various communities and diverse populations, detailing strategies to engage a broad spectrum of stakeholders, and the expected outcomes from such participation. The PIP was informed by focused conversations with key stakeholders early in the project, which allowed the project team to solicit direct input about the proposed approach to community engagement, in the context of a variety of previous planning and outreach efforts. The following sections describe key elements of the PIP, including public involvement goals, key messages, and an overview of the community outreach approach.

i. Public Involvement Goals

The PIP identified four key goals for the public outreach process to support a successful ESJ MTIP:

1. **Build** on previous outreach work. Many transportation and neighborhood development projects have been completed or are currently ongoing in East San José. Stakeholders and community members have been participating in conversations about values, goals, recommendations, and priorities for many years. Synthesize what we’ve heard through other project work to inform an implementable MTIP.

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2. **Listen** to the public through the most effective and convenient outreach methods to reach the neighborhood’s diverse populations. The ESJ MTIP team will seek to meet the community where they are, to make engagement convenient for individuals/groups that may not otherwise participate in public outreach processes through the use of creative and/or innovative tactics.
3. **Educate** the community on basic principles and benefits of different modes of transportation and transportation solutions, including:
 - Economic, mobility, social, health, and environmental benefits of transit and active transportation
 - Key principles of neighborhood-scale transportation planning
 - Best practices and features of high-quality multimodal transportation networks
 - Value of multimodal choices and connectivity
 - Trade-offs between different types of investments and impacts to specific modes
4. **Connect** with community organizations, local leaders, and neighbors to gather additional feedback and learn how to develop actionable plans and projects that serve the study area. With targeted feedback, implementation plans can be customized to reflect the specific needs of the neighborhood, within the context of the City’s existing station area and complete streets planning needs.

ii. Key Messages

The PIP also established the following messages to guide the project team throughout the public involvement process. These key messages ensured a consistent approach and clear communication about the project’s purpose and engagement goals. At its most basic, the ESJ MTIP will:

- Address the challenges of on-going and future growth and development on the City of San José, and on the East San José neighborhood, especially as it relates to upcoming transportation infrastructure changes (new stations, etc.). In other words, identify transportation improvements that will help residents and visitors in East San José to get the most out of upcoming growth and development.
- Build on what has been articulated in the many previous and ongoing transportation and development planning processes, to turn other outreach results into implementable projects. Start with what we’ve already heard from the community.
- Explore strategic multimodal investments to move more people, not just vehicles, in our capacity-constrained roadways. Find solutions for getting around the neighborhood and connecting to other parts of the city without adding more cars to the streets.
- Identify and prioritize East San José’s near- and long-term transportation needs based on previous project findings, analysis and community input. Learn from the work that has been done before.
- Guide decisions and identify investment priorities to meet the current and future mobility needs of the community, working within fiscal constraints. Find practical and implementable tools to improve mobility and access.
- Produce a report that includes a summary of analysis, overview of community input and ideas, and a prioritized implementation plan supported by key performance measures. Document the

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process for developing recommendations, evaluating potential improvements, and identifying top priorities.

- Identify, explore, and make recommendations for transportation and mobility investments and improvements that uplift and support community goals, alleviate current challenges, and prevent/mitigate harm to existing community. Focus on opportunities to ensure that this multimodal transportation plan and future projects that build on this process add value to the local community.

iii. *Community Outreach Approach*

The PIP outlined the community outreach approach with four rounds of targeted community engagement. These outreach phases aligned feedback received through different engagement tools and techniques with project objectives and technical materials. At all stages of the project, the project consultant team collaborated with the City staff and other project partners to maximize the reach of communication and share information directly through familiar channels and trusted community leaders whenever possible. **Figure 2** outlines the project approach focused on integrating community feedback and developing implementable recommendations.

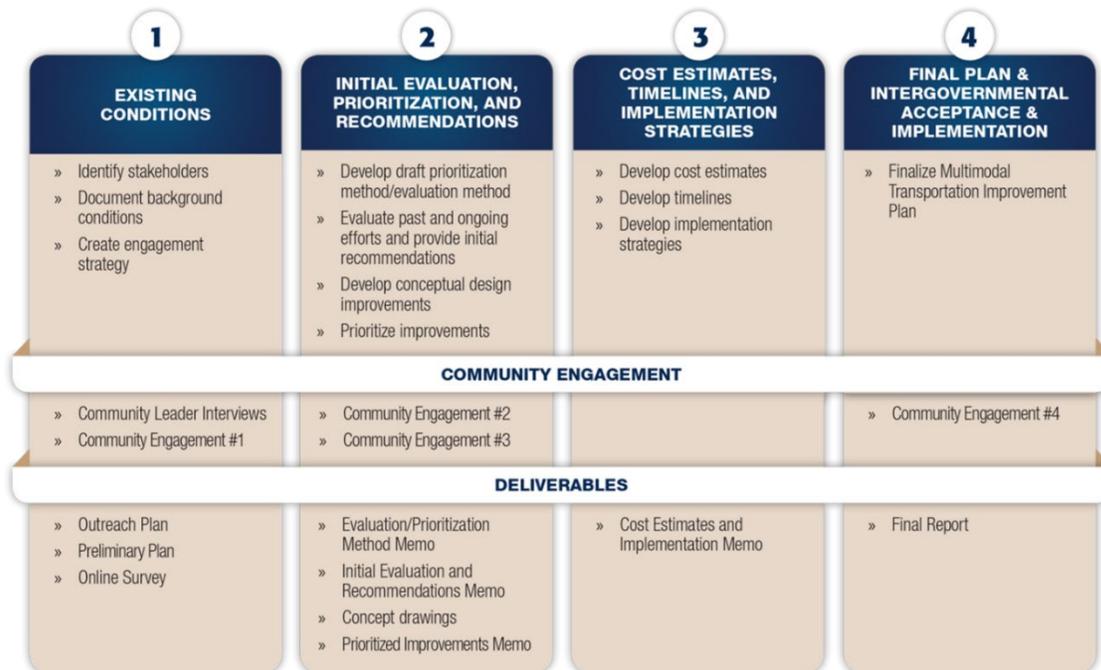


Figure 2 - Project Process

c. Community Engagement Summary

As detailed in the PIP, the project team conducted four rounds of community engagement. The following sections provide a summary of each round of outreach, including the format and approach, who we heard from, and key takeaways.

Outreach Round 1 (March 2019)

The first round of community engagement aimed to address two primary goals:

1. Introduce the project to the broader East San José community; and
2. Validate the consultant team’s synthesis of past studies, mobility priorities, potential projects, and understanding of community transportation needs.

To address these goals, the project team held six pop-up workshops and distributed an online, map-based survey. The team distributed approximately 200 flyers during the pop-up workshops and received 131 responses to the online survey. The pop-up workshops were held in key gathering spaces in the study area to meet people where they already spend their time during midday, late afternoon, and early evening hours. During the pop-ups, the project team received input from a broad range of community members. Most participants were Asian and Latinx community members who communicated primarily with the SOMOS Mayfair and VIVO staff in Spanish and Vietnamese (**Figure 3** and **Figure 4**). The online survey complemented the pop-up workshops with location-specific feedback about neighborhood transportation needs and priorities. The survey was available in English, Spanish and Vietnamese and reached a broad cross-section of communities in East San José.



Figure 3 - SOMOS staff engaged with community members during pop-up workshops



Figure 4 - VIVO staff engaged with community members during pop-up workshops

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This round of outreach identified the following topics and preferences as primary multimodal issues in East San José:

- Traffic calming and high vehicle speeds
- Transit speed, reliability and frequency
- Long distance or low-comfort at pedestrian crossings
- Gaps in bicycle network or low-comfort environment for riding bikes
- Focus on full East Santa Clara Street/Alum Rock Avenue corridor
- Focus on 24th Street, East San Antonio, King Road
- Focus on East Julian Street near 24th Street, McKee Road at King Road

Outreach Round 2 (June 2019)

In response to the outreach round 1 feedback and input from early conversations with community leaders and stakeholder representatives, the project team developed a set of preliminary street improvements to address mobility challenges and network gaps, and a draft evaluation framework that would be used to prioritize the list of final transportation projects in the plan. The goal of outreach round 2 was to gather feedback from community members about preliminary content, including:

- Evaluation priorities – a set of priorities informed by input from community members, City goals and policies, and considerations that are necessary to implement a project; to be used as the building blocks of an evaluation framework.
- Street improvement toolkit – a set of possible transportation improvements, such as bicycle crossings, wayfinding, pedestrian-scale lighting, signal improvements, and more.
- Preliminary street improvements – preliminary recommendations that indicate the corridors that would receive improvements and which the types of improvements would apply.
- Evaluation metrics – a set of metrics that aligns with the evaluation priorities; to be used to evaluate projects and develop a prioritized list of projects.

This round of community engagement included a public open house, three pop-up workshops, and an online survey (**Figure 5** and **Figure 6**). The online survey served as an extension of the open house and pop-up workshops to gather feedback from those who could not attend in-person. The project team received input from mostly Spanish-speaking and English-speaking community members.

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Figure 5 - SOMOS staff engaged with community members during pop-up workshops



Figure 6 – Community members provided feedback during open house

Outreach round 2 identified the following key takeaways:

- **Evaluation Priorities:** Priorities based on community input and City policies received the most support, especially Local Economy and Safety and Health. Community members expressed the least amount of support for priorities related to project deliverability.
- **Street Improvement Toolkit:** All street improvement types received positive feedback. Those that received the most support included pedestrian crossings, pedestrian connections, trail crossings, pedestrian scale lighting, mixed-use paths, and traffic calming.
- **Preliminary Street Improvements:** In general, each of the street improvement corridor types received positive support. The top three types that received the most support included US-101 overcrossings, east-west bike boulevards, and priority transit routes.
- **Evaluation Metrics:** Community members expressed the most support for metrics related to priorities that were based on community input and City policies, specifically metrics related to Safety and Health, Public Life, Equity, and Local Economy.

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Outreach Round 3 (December 2019)

The goal of outreach round 3 was to gather feedback from key stakeholders about design details for potential projects in the East San José study area. The project team prepared potential design details for 24 projects, all of which reflected priorities and feedback from community members shared during previous outreach events and surveys; stakeholders discussed 11 of these projects during the workshops (**Figure 7**). The project team received input during two stakeholder workshops from ten stakeholders who represent seven organizations. Stakeholders shared suggestions and comments of support and concern with the project team to inform the refinement of the final project concepts.



Figure 7 - Project team discussed potential design details with key stakeholders

Outreach Round 4 (February 2020)

The goal of Community Outreach 4 was to provide an overview of *En Movimiento* accomplishments, highlight projects that the community can expect to see in the East San José neighborhood in the next three years, and share opportunities for the community to stay involved during the implementation phase of the proposed projects.

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The open house meeting format provided opportunities for in-depth conversations about projects and next steps of interest to the attendees. The project team prepared an overview presentation that ran on a loop throughout the meeting and brought printouts of the design details for 25 projects, all of which reflected priorities and feedback from community members shared during previous outreach events and surveys. Staff from the project team, including the City of San Jose, Nelson\Nygaard, and Kimley-Horn, facilitated conversations amongst stakeholders, see **Figure 8**, by responding to questions from participants about design details for specific projects and about opportunities for the community to stay involved during the implementation phase.



Figure 8 - Project team facilitated conversations amongst stakeholders about design details

4. VALUES, ISSUES, GOALS, AND GUIDING PRINCIPLES

The project team developed a list of goals for the ESJ MTIP street improvement projects, which can be seen in **Table 1**. These goals were informed by a combination of input from community members, City goals and policies, and considerations that are necessary to implement a project.

- **Reflect community input** – The priorities reflect the feedback community members shared with the City and project team during outreach round 1 and past planning efforts. Based on community input, the team focused on *equity, preservation and protection, supporting the local economy, and serving community needs*.
- **Support complementary City policies** – The priorities address City goals and policies from past and ongoing planning efforts. Based on the policies and associated goals, the project team focused on *public life, safety and health, and the climate* in East San José.
- **Consider project implementation needs** – The priorities include practical details necessary to build street improvements, like *cost effectiveness and deliverability*, so recommendations turn into real projects in the East San José neighborhood.

Table 1 - Goals for ESJ MTIP Street Improvement Projects

Goal	Description
Equity	Address the needs of people who have not been served equitably in the past, including children, the elderly, People of Color, the disabled, and low-income households.
Preservation and Protection	As San José grows and changes, improve connections to work, school, and shopping in a way that does not displace residents, local businesses, or cultural centers.
Local Economy	Provide an inviting setting for people who walk, bike, and take transit on streets with businesses, in an effort to support local retail and provide connections to the needs of daily life for all residents.
Community Serving	Addresses transportation improvements that the community has asked for to meet the needs of all people who walk, bike, and take transit in the neighborhood.
Public Life	Design streets to create a network of vibrant public spaces and foster a stronger sense of personal security and safety.
Safety and Health	Eliminate traffic-related crashes, particularly near schools, transit stops, retail, and community centers.
Climate	Reduce emissions, meet the City’s Climate Smart San José goals, and make it easier to get around without driving a car.
Cost Effectiveness	Provide a high public return on investment and low operations and maintenance costs.
Deliverability	Streamline the street improvement implementation process.

5. BACKGROUND RESEARCH, EXISTING CONDITIONS, AND PRELIMINARY PLAN

As part of the MTIP effort, in April 2019, a Preliminary Plan was developed. The Preliminary Plan documented both the existing conditions in the study area as well as previously and newly identified transportation network gaps and opportunities. This chapter outlines key components of the Preliminary Plan.

a. Summary of Previous Planning Efforts

Numerous planning efforts have been completed within the ESJ MTIP study area. The following documents were reviewed and incorporated into the ESJ MTIP effort where applicable.

- Better BikewaySJ (City of San José)
- Better Bike Plan 2025 (City of San José)
- Downtown San José Transportation Plan
- 2017 Next Network & 2019 New Transit Service Plan (Santa Clara Valley Transportation Authority, also known as VTA)
- Urban Village Plans in the Project Area (City of San José)
- San José Complete Streets Design Standards and Guideline (City of San José)
- Santa Clara Countywide Bicycle Plan (VTA)
- Pedestrian Access to Transit Plan (VTA)
- San José BART Station Access Planning Final Report (City of San José)
- Vision Zero San José (City of San José)
- Valley Transportation Plan 2040 (VTA)
- Envision 2040 General Plan (City of San José)
- Five Wounds BART Station Area Community Concept Plan (CommUniverCity San José, City of San José, and Five Wounds/Brookwood Terrace Neighborhood Action Coalition)
- Five Wounds Trail Concept Plan, Coyote Creek Trail Master Plan, and Lower Silver Creek Trail Master Plan
- San José Pedestrian Master Plan (City of San José)
- Strong Neighborhood Initiative Plans (City of San José)

The people who make up the East San José neighborhoods seek to bring about a sustainable future that works for all members of the community, regardless of age or ability, while preserving the unique history and character of the distinct Urban Villages. To accomplish this, many of the Urban Village plans contain a series of policies to address land use, building design and height, historic preservation, and travel circulation. Generally, these plans recommend increased residential density, street-facing retail, and support for ongoing transit infrastructure investments made in the community.

The plans seek to refocus the transportation network away from the automobile as the primary mode of transportation by encouraging people to travel by foot, by bicycle, and by transit. While the auto-oriented nature of the E. Santa Clara Street/Alum Rock Avenue corridor provides benefits, such as easy

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access to the nearby freeways, it presents challenges to achieving the community's stated goals. E. Santa Clara Street/Alum Rock Avenue acts as a barrier to pedestrian travel due to its wide cross-section, high automobile travel speeds, and the fact that not all intersections feature crosswalks. Additionally, the street does not have bike lanes, and bicyclists are encouraged to use the more bicycle-friendly, but less direct, routes along E. San Antonio Street/Capitol Expressway, E. San Fernando Street, E. St. John Street, and E. Julian Street/McKee Road. However, the street encourages pedestrian travel by providing direct access to significant transit service, including operating Bus Rapid Transit.

Community members have expressed support for addressing gaps in the pedestrian and bicycle networks, such as the lack of comfortable, all-ages facilities to cross Coyote Creek and US-101. Based on this community prioritization, the City recently pursued and secured a grant to fund widening of the E. Santa Clara Street bridge over Coyote Creek. Walking can be further encouraged by widening sidewalks and the construction of medians, safety refuges, and curb bulb-outs, all of which can make pedestrians more comfortable through separation from vehicle travel.

While the network for pedestrian and bicycle travel may be improved by developing additional connections, the community expressed the need to limit vehicle through-traffic to arterial streets, rather than residential neighborhoods, via the installation of traffic diverters and traffic calming street treatments. By calming or diverting vehicle through-traffic, residential neighborhood streets can become more desirable and pleasant places for walking and bicycling.

These important goals may be achieved while still maintaining support for the existing BRT line that runs along the E. Santa Clara Street/Alum Rock Avenue, a link which will become even more important after the opening of the 28th Street/Little Portugal and Downtown San José BART stations. The Urban Village plans demonstrate support for additional residential and commercial density through mixed-use development, while preserving the important cultural landmarks that exist within the neighborhoods. Through these plans, the community seeks to bring about an East San José made up of neighborhoods that are diverse, vibrant, affordable, sustainable places that can be enjoyed by people of all ages and abilities, and by long-time residents, new arrivals, and visitors alike.

A detailed view of all previously recommended improvements can be found in **Appendix A**.

b. Bicycle/Shared Mobility

i. Existing Bicycle Network

Bicycle facilities are divided into Classes I through IV. Class I bicycle facilities are off-street trails, Class II are on-street painted bike lanes, Class III are on-street bike routes where bicyclists share a lane with drivers, and Class IV are on-street protected bike lanes. Within the study area there are several Class II and Class III facilities, and a small section of a Class I facility on the Coyote Creek Trail. Additionally, there are recently-constructed Class IV bike facilities on E. San Fernando Street west of S. 7th Street.

The primary east-west bicycle facilities are E. St. John Street, E. San Fernando Street, and E. San Antonio Street. Of these primary east-west bicycle routes, E. San Antonio Street is the only to cross US-101 within the study area. Additionally, E. Taylor Street crosses US-101 with a protected bicycle facility, though only a short segment of the street lies within the northern portion of the study area. The primary north-south bicycle facilities within the study area are 17th Street, 24th Street/McLaughlin Avenue, and King Street, each of which have Class II facilities within the study area.

US-101 and Coyote Creek act as barriers to bicycle travel due to the lack of low-stress bicycle crossings. E. San Antonio Street and E. Taylor Avenue are the only streets within the study area to have crossings with bicycle facilities over both US-101 and Coyote Creek.

The existing on- and off-street bicycle facilities and planned trail network are shown in **Figure 9**. The planned trail network is also shown because the planned trails are not a part of this project and are a part of a separate effort.

ii. Planned Bicycle Network

The City of San José has completed an ambitious expansion of bicycle facilities through Better BikewaySJ in the area surrounding Downtown, which includes the western portion of the study area. Many improvements have recently been implemented and a number more are planned for 2020 and the years beyond, as part of the San José Better Bike Plan 2025, including.

Facilities on several additional east-west and north-south corridors, such as enhanced bicycle connections across US-101 on McKee Road, E. Santa Clara Street/Alum Rock Avenue, and E. San Antonio Street are planned.

The San José Bike Plan 2020 recommended policies, programs, and action items that defined a network of on- and off-street bikeways in San José with a goal of making bicycling in San José more safe, convenient, and common. Bike Plan 2020 identified a 500-mile bikeway network, bike parking, support facilities, and rideshare program to implement, and provides recommendations on ways to combine bicycling and transit as well as best practices and education and enforcement strategies. San José Better Bike Plan 2025 will build on these successes and push beyond them.

Within the study area, there are several streets designated by the Santa Clara Countywide Bicycle Plan as Cross County Bicycle Corridors (CCBCs) that have not yet been constructed. These are E. Julian Street/McKee Road, King Road, Capitol Expressway, and the three off-street trails planned for the study area: Coyote Creek Trail, The Five Wounds Trail, and the Lower Silver Creek Trail.

EAST SAN JOSÉ • MTIP



LEGEND

- | | | | |
|---|------------------------|-------------------|---------------------------|
| — VTA's BART Phase I Extension Alignment | Existing VTA BRT Stops | Existing Bikeways | Planned Trails |
| -⊙- VTA's BART Phase II Extension Alignment | Existing VTA LRT Stops | — Class I | --- Planned Trail Network |
| ■ VTA's BART Phase II Stations | ● Ford GoBike Stations | — Class II | |
| | | — Class III | |
| | | — Class IV | |

Source: City of San José Trail Plans

EXISTING BIKEWAY AND PLANNED TRAIL NETWORK • FIGURE 9

c. Pedestrian

i. Existing Pedestrian Network

The study area features a relatively complete sidewalk network, with minimal gaps in sidewalk connections. However, many of the sidewalks within the study area are narrow and are adjacent to fast-moving auto traffic. This is a problem particularly for crossings over US-101 on McKee Road, E. Santa Clara Street/Alum Rock Avenue, and E. San Antonio Street, each of which has sidewalks between five to seven feet in width. The largest sidewalk gap in the study area exists on the west side of N. King Street between Schulte Drive and McKee Road, a section that is planned to be a part of the Lower Silver Creek Trail.

The freeway interchanges along US-101 at McKee Road and at E. Santa Clara Street/Alum Rock Avenue present additional barriers to pedestrian movement due to large curb radii, which facilitate higher-speed vehicle travel at intersections, and long crossing distances and times.



Long Crossing Distances at Interchanges



Narrow Sidewalks on Freeway Overpasses



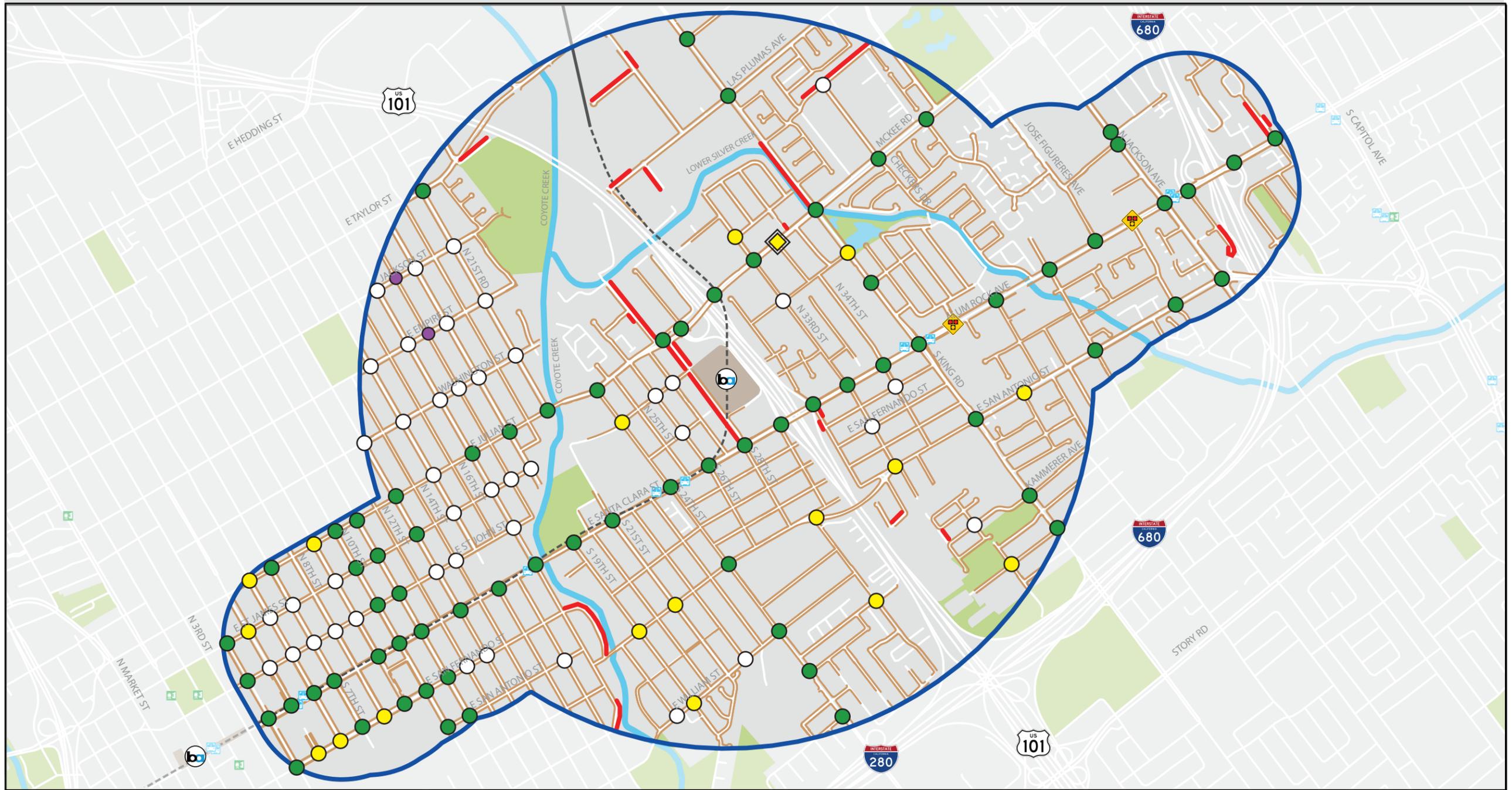
Rectangular Rapid Flash Beacon (RRFB)



Pedestrian Hybrid Beacon (PHB)

Figure 10 shows the existing pedestrian network within the study area.

EAST SAN JOSÉ • MTIP



LEGEND

- VTA's BART Phase I Extension Alignment
- b- VTA's BART Phase II Extension Alignment
- VTA's BART Phase II Stations
- East San José MTIP Boundary

- 🚏 Existing VTA Rapid Bus Stops
- 🚊 Existing VTA LRT Stops

- Existing Sidewalk
- Existing Sidewalk Gap
- Traffic Circle
- Signalized Intersection
- All-way Stop Controlled

- Crosswalk with no Traffic Control
- ⬡ Pedestrian Hybrid Beacons (PHB)
- ⬡ Rectangular Rapid Flash Beacon (RRFB)

All unclassified intersections are stop controlled on the minor street or have no intersection control



Source:
City of San José

EXISTING PEDESTRIAN NETWORK • FIGURE 10

d. Transit

i. Existing Transit Network

The study area includes both local bus and bus rapid transit service, operated and maintained by VTA. The primary north-south transit corridors in the study area are Jackson Avenue, King Road, and S. 24th Street/McLaughlin Street. These streets are served by VTA local routes 70, 72 and 77. The primary east-west transit corridors are E. Julian Street/McKee Road and E. Santa Clara Street/Alum Rock Avenue. These streets are served by VTA local route 64, 22, and 23, as well as the 522 BRT route. The VTA Express 122 operates along US-101 through the study area.

The 522 BRT line opened in 2017 and included the installation of stations along Santa Clara Street/Alum Rock Avenue with enhanced amenities such as benches, shelters, trash cans, real-time arrival information, pedestrian lighting, and route information. Center-running dedicated lanes were constructed east of 34th Street on Alum Rock Avenue. Some existing local bus stops have benches, but many lack the enhanced amenities found at the BRT stations.

Currently, BRT stations are sited every ½ mile east of US-101 on Alum Rock Avenue and every ¼ mile west of US-101 on E. Santa Clara Street. There is not currently a station at 28th Street, the road closest to the planned 28th Street/Little Portugal BART Station.

Existing BRT stations within the study area are located at the following intersections:

- E. Santa Clara Street and 6th Street
- E. Santa Clara Street and 17th Street
- E. Santa Clara Street and 24th Street
- Alum Rock Avenue and King Road
- Alum Rock Avenue and Jackson Avenue

In December 2019, VTA brought substantial changes to its bus network to better connect riders with the soon-to-be-opened Phase I of the BART Silicon Valley Extension through increased evening and weekend service and the implementation of a network of frequent routes. **Figure 11** shows the transit network within the study area.

ii. Planned Transit Network

VTA will implement additional changes to the bus network in coordination with the BART Silicon Valley Phase II Extension, which includes the opening of the 28th Street/Little Portugal Station. This may include the possible rerouting of the local routes in the MTIP area. Route 72 will be rerouted to provide service to the BART station and Route 64 may similarly be rerouted. Routes 22 and 522 are planned to remain on E. Santa Clara Street. The planning effort is still on-going and further route and system changes may occur closer to implementation.

e. Collisions

i. *Automobile-only*

Figure 12 shows all reported automobile collisions not involving a bicyclist or pedestrian that occurred between July 2013 and July 2018. Data for this section were provided by the City of San José, which maintains a database independent from that managed by California Highway Patrol (CHP). Injuries suffered by involved parties are categorized on a four-point scale: Minimal Injury, Minor Injury, Major Injury, and Fatal Injury.

Between the dates stated above, there were 903 recorded auto-only collisions in the study area that resulted in an injury. Twenty of these collisions resulted in a major injury and six in a fatality. Three fatal collisions occurred at the intersection of E. Santa Clara Street and 22nd Street.

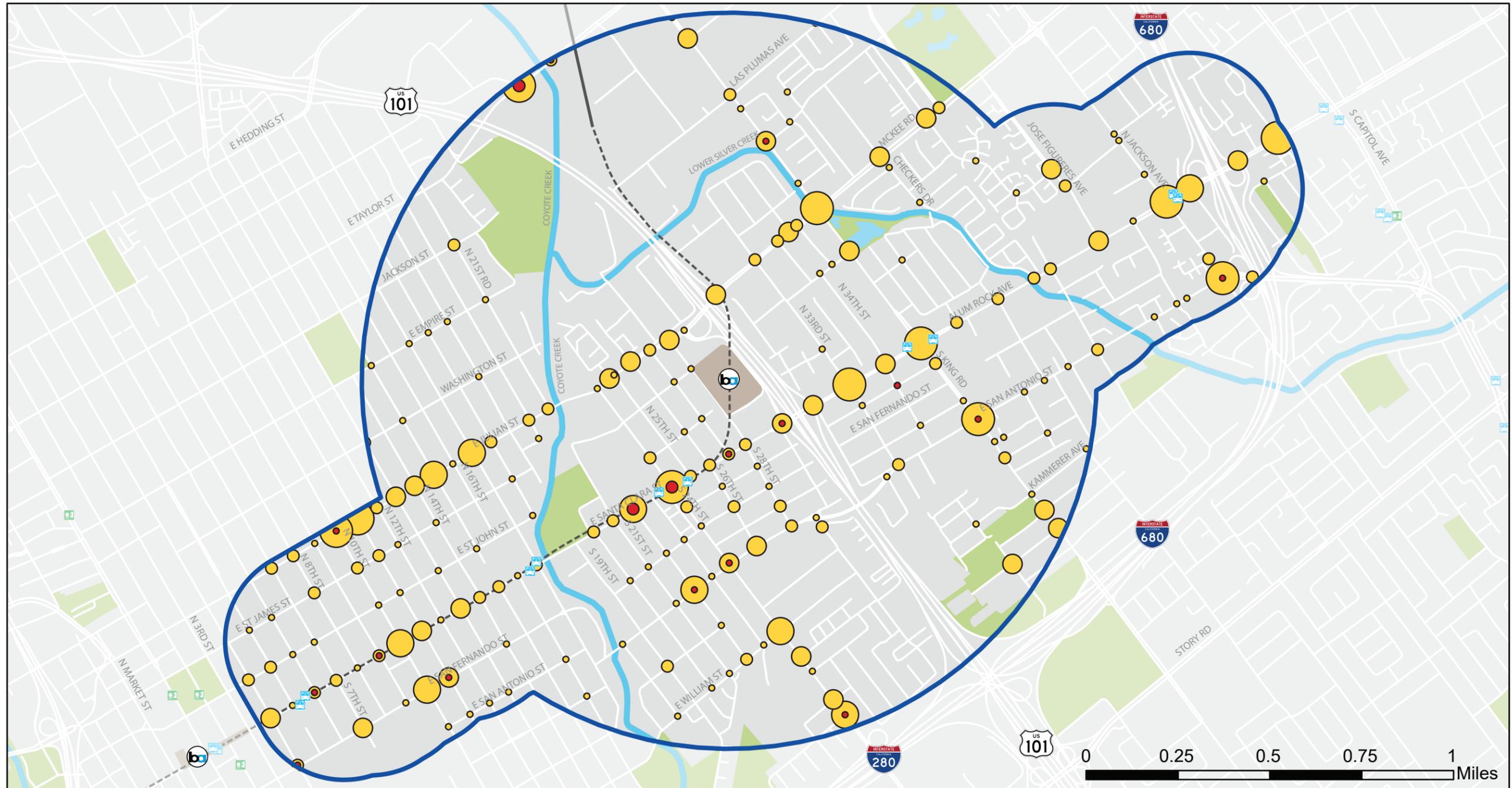
Two or more fatal or major injury collisions occurred at each of the following intersections, making up 80% of the total fatal and major injury collisions within the study area:

- E. Santa Clara St. and 22nd St.
- E. Santa Clara St. and 24th St.
- Maybury Rd. and E. Taylor St.
- E. San Antonio St. and 24th St.
- DOT Way and Maybury Rd.
- S. 4th St. and E. San Fernando St.

While there were injury collisions at 195 different intersections within the study area, the top 5 percent of intersections accounted for 25 percent of all injury collisions. Those intersections are as follows:

- S. King Road. and E. San Antonio St.
- Alum Rock Ave. and Jackson Ave.
- 11th St. and E. Julian St.
- N. King Rd and McKee Rd.
- Alum Rock Ave. and 33rd St.
- Alum Rock Ave. and King Rd.
- Alexander Ave. and Alum Rock Ave.
- E. Santa Clara St. and 24th St.
- Capitol Expy. and S. Jackson Ave.
- E. Julian St. and N. 10th St.

EAST SAN JOSÉ • MTIP



LEGEND

- VTA's BART Phase I Extension Alignment
- b- VTA's BART Phase II Extension Alignment
- VTA's BART Phase II Stations
- East San José MTIP Boundary

- Existing VTA Rapid Bus Stops
- Existing VTA LRT Stops

Fatal or Major Injury Collisions

# of Collisions at Intersection	# of Locations within Study Area
● 1-2	15
● 3-5	3
● 6-10	0
● 11-15	0
● 16+	0

All Injury Collisions

# of Collisions at Intersection	# of Locations within Study Area
● 1-2	93
● 3-5	52
● 6-10	30
● 11-15	9
● 16+	11



Source:
City of San José, 2013-2018

AUTO-ONLY INJURY COLLISIONS (2013-2018) • FIGURE 12

EAST SAN JOSÉ • MTIP

ii. *Pedestrian-Involved Collisions*

Figure 13 shows all reported pedestrian-involved automobile collisions that occurred between July 2013 and July 2018.

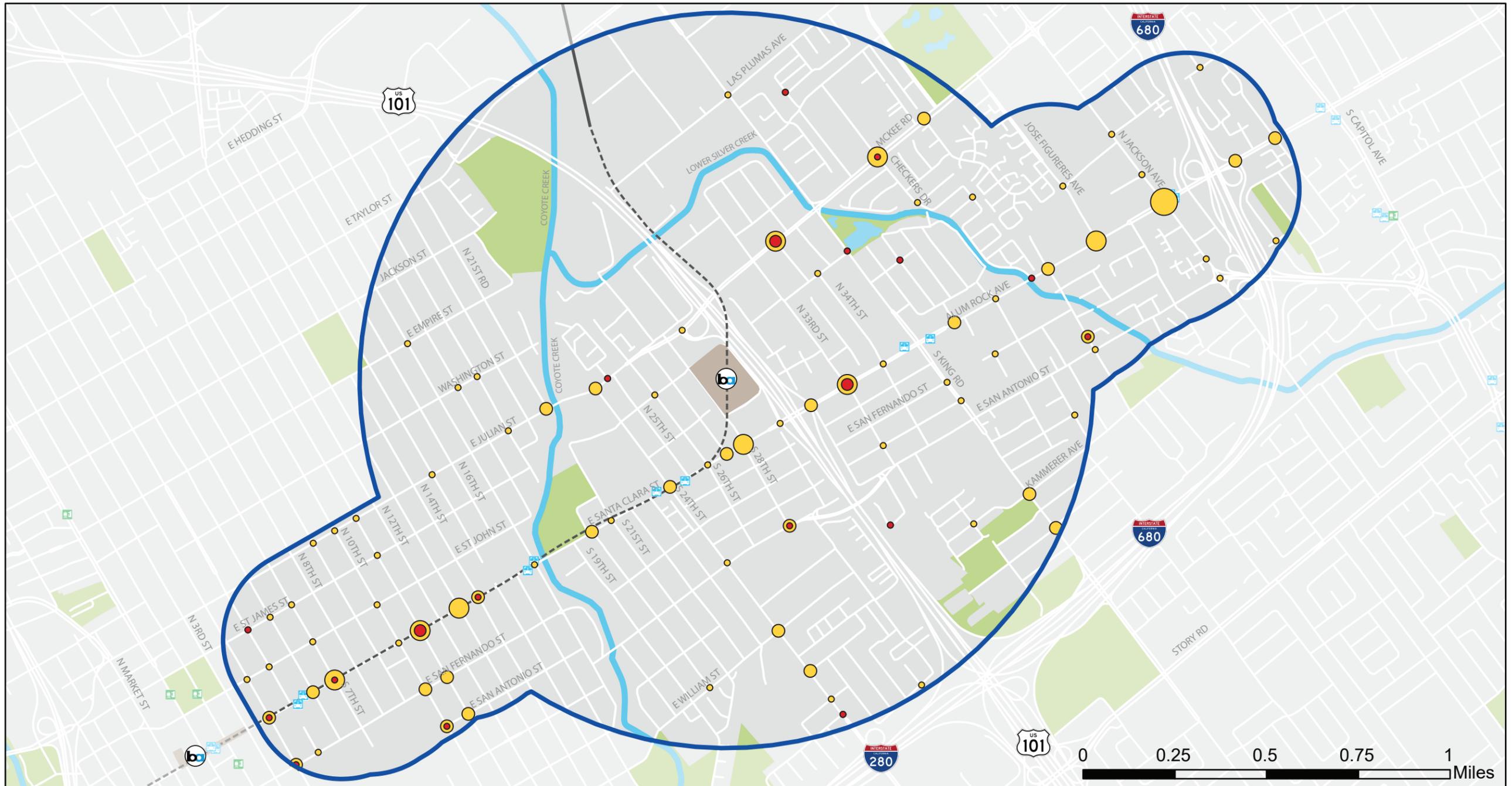
During this period, there were 153 collisions in which a pedestrian was struck by the operator of an automobile. Sixteen of these collisions resulted in a major injury and six resulted in a fatality. All fatal pedestrian-involved collisions occurred at different intersections, but the following intersections were the site of two pedestrian deaths or major injuries:

- McKee Rd. and N. 34th St.
- Alum Rock Ave. and 33rd St.
- 11th St. and E. Santa Clara St.

Between July 2013 and 2018, there were pedestrian-involved collisions at 89 intersections in the study area. As with auto-only injury collisions, the top 5 percent of intersections accounted for roughly 25 percent of all pedestrian-involved collisions. One third of injury collisions (51) occurred along E. Santa Clara Street/Alum Rock Avenue. At least five pedestrian-involved injury collisions occurred at each of the following intersections:

- Alum Rock Ave. and Jackson Ave.
- Checkers Dr. and McKee Rd.
- E. Santa Clara St. and 28th St.
- Alum Rock Ave. and 33rd St.
- 11th St. and E. Santa Clara St.

EAST SAN JOSÉ • MTIP



LEGEND

- VTA's BART Phase I Extension Alignment
- b- VTA's BART Phase II Extension Alignment
- VTA's BART Phase II Stations
- East San José MTIP Boundary

- 🚏 Existing VTA Rapid Bus Stops
- 🚇 Existing VTA LRT Stops

Fatal or Major Injury Collisions	# of Collisions at Intersection	# of Locations within Study Area	All Injury Collisions	# of Collisions at Intersection	# of Locations within Study Area
●	1	16	●	1	56
●	2-3	3	●	2-3	25
●	4-5	0	●	4-5	8
●	6+	0	●	6+	1



Source:
City of San José, 2013-2018

PEDESTRIAN-INVOLVED INJURY COLLISIONS (2013-2018) • FIGURE 13

iii. Bicyclist-Involved Collisions

Figure 14 shows all reported bicyclist-involved automobile collisions that occurred between July 2013 and July 2018.

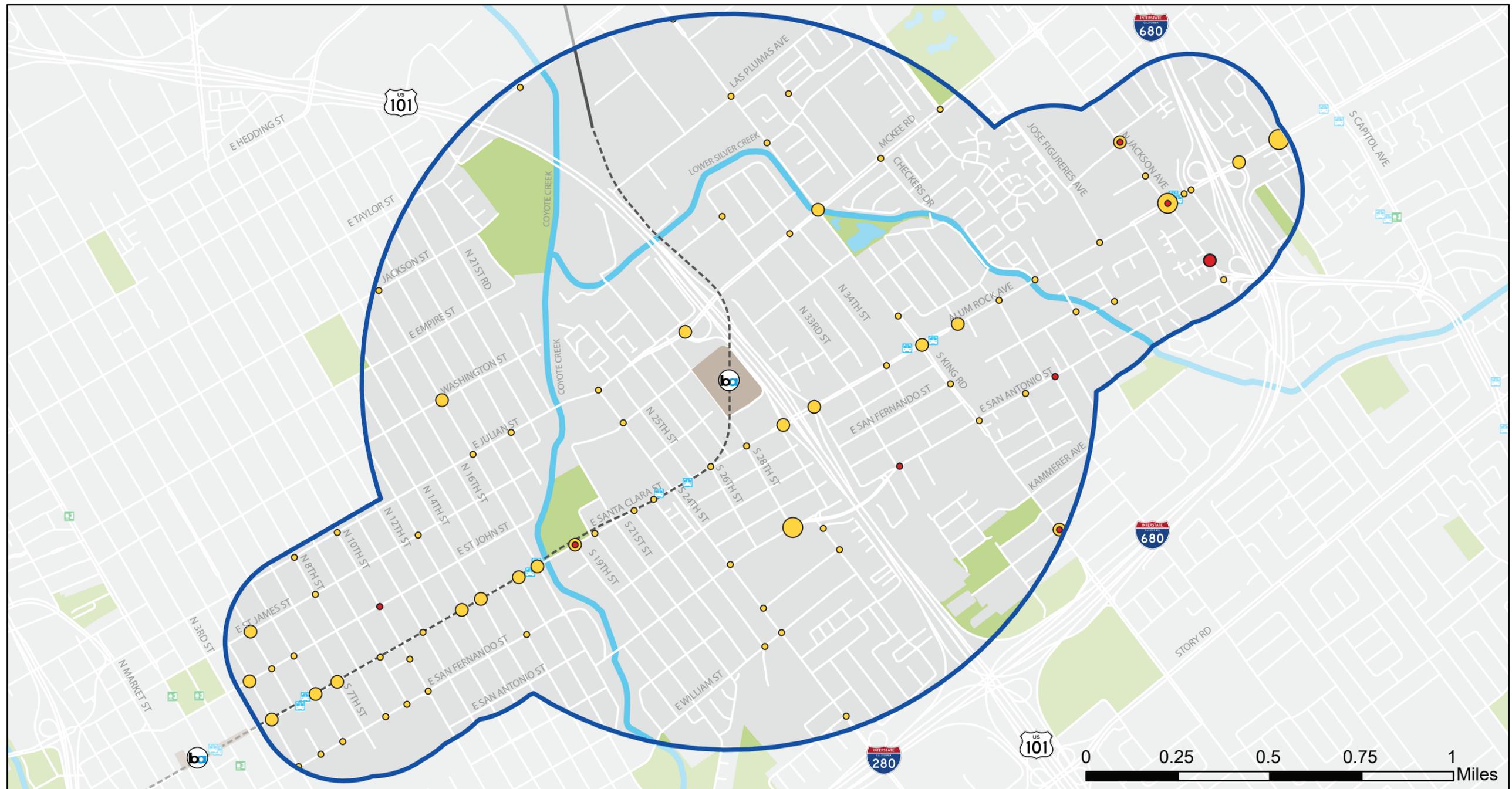
During this period, there were 120 collisions in which a bicyclist was struck by the operator of an automobile. Eight of these collisions resulted in a major injury and one resulted in a fatality. All bicyclist-involved major injury collisions occurred at different intersections, but the intersection of S. Jackson Avenue and Woodset Lane was the site of both a fatal and major injury collision.

The following intersections were each the site of four bicyclist-involved injury collisions, the greatest number at any individual intersection within the study area (eight other intersections each had three injury collisions):

- E. San Antonio St. and S. 28th St.
- Alum Rock Ave. and Jackson Ave.
- Alexander Ave. and Alum Rock Ave.

Nearly one third of bicyclist-involved injury collisions in the study area (39) occurred along E. Santa Clara Street/Alum Rock Avenue, a corridor with no dedicated bicycle facilities. The above intersection of E. San Antonio Street and S. 28th Street is a both a Cross-County Bicycle Corridor (as designated by VTA) and an On-Street Primary Bicycle Facility (as designated by the San José General Plan).

EAST SAN JOSÉ • MTIP



LEGEND

- VTA's BART Phase I Extension Alignment
- b- VTA's BART Phase II Extension Alignment
- VTA's BART Phase II Stations
- East San José MTIP Boundary

- Existing VTA Rapid Bus Stops
- Existing VTA LRT Stops

Fatal or Major Injury Collisions

of Collisions at Intersection

of Locations within Study Area

- 1
- 2-3
- 4-5
- 6+

- 7
- 1
- 0
- 0

All Injury Collisions

of Collisions at Intersection

of Locations within Study Area

- 1
- 2-3
- 4-5
- 6+

- 58
- 21
- 3
- 0



Source:
City of San José, 2013-2018

BICYCLIST-INVOLVED INJURY COLLISIONS (2013-2018) • FIGURE 14

6. TRANSPORTATION NETWORK IMPROVEMENTS

a. Method to Address Key Network Deficiencies

Methods for addressing gaps in the multimodal transportation network were developed through a multi-step process. Initially, all previous planning efforts for the E. Santa Clara Street/Alum Rock Avenue corridor and the six Urban Village plans were thoroughly reviewed. Because the plans reviewed had been developed over a significant stretch of time, some of the recommended improvements had already been implemented. All remaining improvements were summarized in the Preliminary Plan and may be found in **Appendix A**.

In addition to compiling all previous planning recommendations, outreach was conducted in the community to gather feedback from residents about what improvements they would like to see in their neighborhoods. Community members had a wide range of suggestions, but many people were concerned with safety; asking for improved bicycle facilities, lighting and sidewalks; and improved transit, asking for faster buses, more frequent service, and improved bus stops. From this feedback, and from the City’s governing policy documents, a list of project goals was developed, which would allow policymakers to prioritize the long list of potential improvements.

Goals derived from community input and from City input can be found in **Chapter 4**.

b. General Plan Roadway Typologies

i. Current

The General Plan of the City of San José, Envision 2040, classifies all surface streets into one of several types. The Complete Streets Design Standards and Guidelines add greater specificity to the definitions of street typologies assigned by the General Plan and Urban Village plans. Each street type determines the role the street should play within the city, the degree to which various travel modes may be prioritized, and the desired cross-section width of the different uses.

The City’s General Plan includes transportation network designations and transportation policies. The Environmental Impact Report (EIR) for the General Plan identifies the number of travel lanes for each roadway in the City. The General Plan organizes streets and other transportation facilities according to “typologies,” which are intended to provide a network of “complete streets” that accommodates the various users of the street network. **Table 2** shows the different typologies designated within the General Plan.

EAST SAN JOSÉ • MTIP

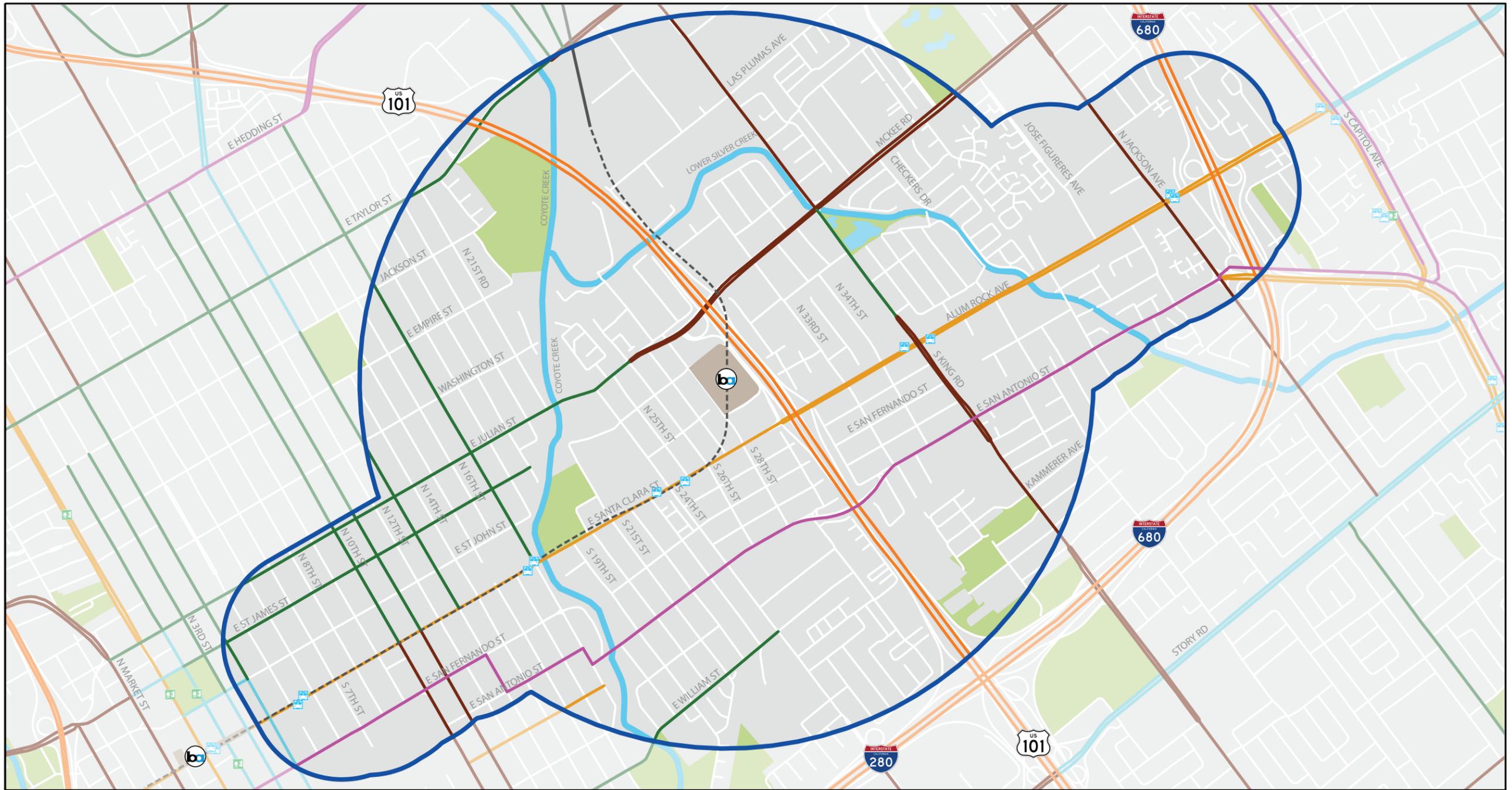
Table 2 - Envision 2040 General Plan Street Typologies

Street Typology	All Modes Accommodated?	Priority Mode	Notes
Grand Boulevards	Yes	Transit	- High standards of design, cleanliness, landscaping, gateways, and wayfinding - If there are conflicts, transit has priority
On-Street Primary Bicycle Facilities	Yes	Bicycles	- If there are conflicts, bicycles have priority
Main Streets	Yes	Pedestrians	- Enable safe, attractive and comfortable access and travel for users of all ages and abilities - Encourage high volumes of pedestrian traffic
(City & Local) Connector Streets	Yes	All modes accommodated equally	- Pedestrians accommodated with sidewalks
Residential Streets	Yes	All modes accommodated equally	- Pedestrians accommodated with sidewalks or paths - Through traffic discouraged

Source: Envision San José 2040 General Plan

Figure 15 shows the existing roadway network with street types from the San José General Plan and Urban Village plans within the project area. All streets without specified types are considered Residential Streets, on which through-traffic is discouraged and pedestrians are prioritized through the installation of stop signs and crosswalks.

EAST SAN JOSÉ • MTIP



LEGEND

- | | | | |
|---|------------------------------|------------------------------------|-----------------|
| — VTA's BART Phase I Extension Alignment | Existing VTA Rapid Bus Stops | Freeway | Main Street |
| -ⓑ- VTA's BART Phase II Extension Alignment | Existing VTA LRT Stops | Local Connector | Grand Boulevard |
| VTA's BART Phase II Stations | City Connector | On-Street Primary Bicycle Facility | |
| East San José MTIP Boundary | | | |



Source:
Envision San José 2040 General Plan

EAST SAN JOSÉ • MTIP

Transportation policies outlined in the General Plan include working toward a balanced transportation system, increasing the focus on walking and bicycling, maximizing public transit usage, improving vehicular circulation, and improving parking and intelligent transportation systems (ITS). The General plan aims to reduce the single-occupancy vehicle commute mode share to below 40 percent by 2040, while increasing the share of people commuting via sustainable transportation modes. These goals may be achieved by ensuring that transit vehicles arrive frequently and are not unnecessarily delayed by single occupancy vehicles, providing safe pedestrian infrastructure, removing gaps in the sidewalk network, prioritizing bicycle travel on certain classes of street, and further developing the City’s off-street trail network.

Table 3 below shows the existing commute mode split for the study area, as well as the current citywide rate and 2040 target as laid out in the General Plan.

Table 3 - Envision San José 2040 Commute Mode Split Targets

Mode	2018 ESJ MTIP Study Area	2017 Citywide	2040 Citywide Goal
Drive alone	70.0%	75.9%	No more than 40%
Carpool	14.2%	11.7%	At least 10%
Transit	6.7%	4.5%	At least 20%
Bicycle	1.7%	0.9%	At least 15%
Walk	3.0%	1.7%	At least 15%
Other means (including work at home)	4.3%	4.1%	(Not included in transportation model)

Sources: Envision San José 2040 General Plan, 2017 ACS 5-Year Estimates

ii. Proposed Changes

The projects were intended to be in accordance with street types from the San José General Plan; however, there were some streets that may need to be redefined. **Table 4** summarizes the proposed changes to street typology based on the identified transportation network improvements.

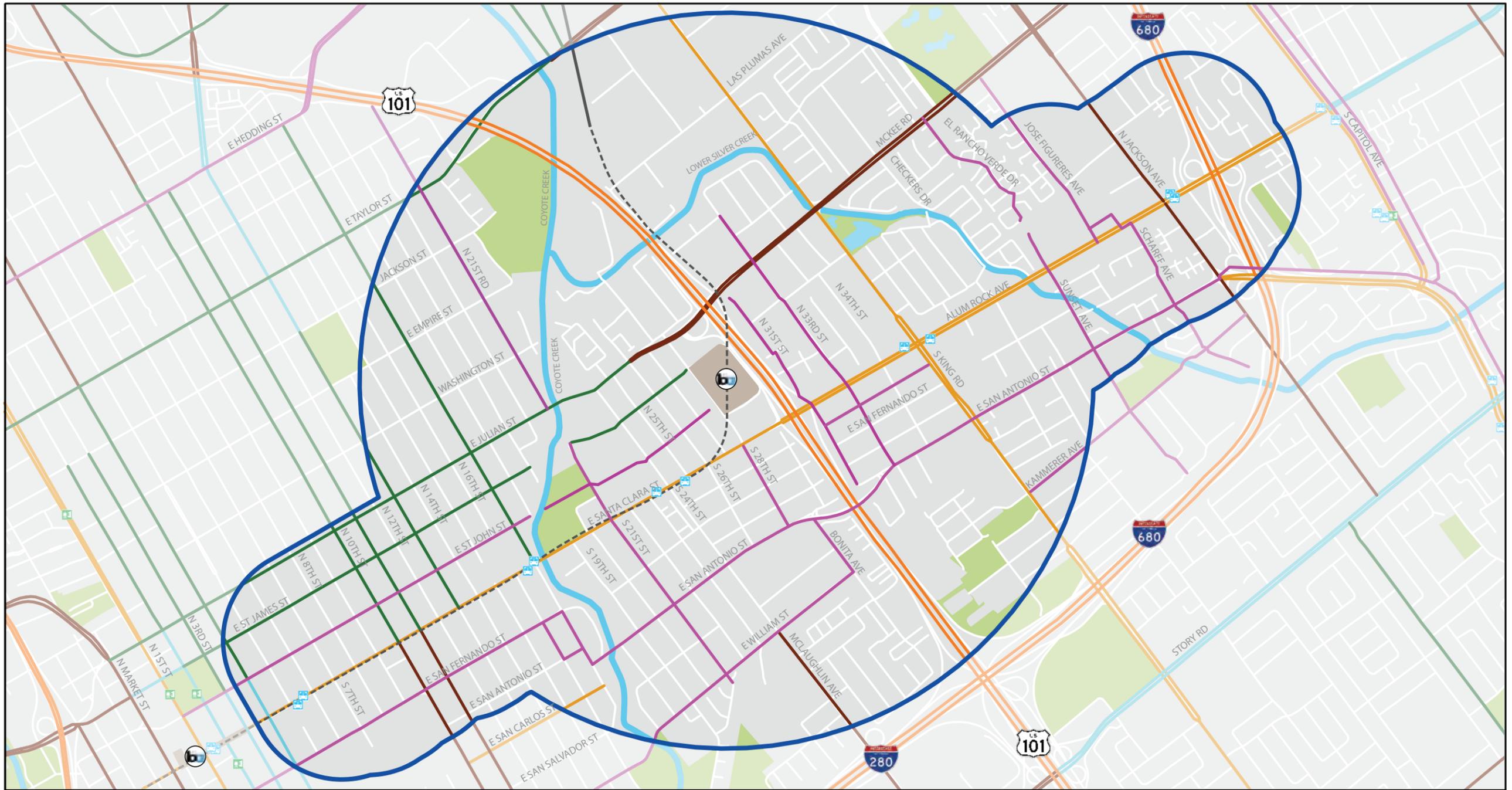
EAST SAN JOSÉ • MTIP

Table 4 - Proposed Street Typology

Street Name	Existing Typology	Proposed Typology
E St John St	Residential St	On-Street Bike Facility
21st St	Residential St	On-Street Bike Facility
28th St	Residential St	On-Street Bike Facility
N 21st St	Residential St	Local Connector Street
E St James St/E St John St	Residential St	Local Connector Street
E William St	Residential St	On-Street Bike Facility
King St	Local Connector/City Connector	Grand Boulevard
Jose Figueres Ave	Residential St	On-Street Bike Facility
Kammerer Ave	Residential St	On-Street Bike Facility
33rd St	Residential St	On-Street Bike Facility
Scharff Ave	Residential St	On-Street Bike Facility
Sunset Ave	Residential St	On-Street Bike Facility
Bonita Ave	Residential St	On-Street Bike Facility
Shortridge Ave	Residential St	On-Street Bike Facility

The proposed roadway network with street types from the San José General Plan within the project area are shown in **Figure 16** below. The changes specified in this chapter of the MTIP are incorporated in the figure.

EAST SAN JOSÉ • MTIP



LEGEND

- | | | | |
|---|------------------------------|------------------------------------|-----------------|
| VTA's BART Phase I Extension Alignment | Existing VTA Rapid Bus Stops | Freeway | Main Street |
| VTA's BART Phase II Extension Alignment | Existing VTA LRT Stops | Local Connector | Grand Boulevard |
| VTA's BART Phase II Stations | City Connector | On-Street Primary Bicycle Facility | |
| East San José MTIP Boundary | | | |



Sources:
Envision San José 2040 General Plan
ESJ MTIP

7. PROJECT CONCEPTS

a. Process for Development of Concepts

Once the transportation network improvements needed were identified, they were categorized into the following project types: Transit Priority, Major Streets, Bike Boulevard, Bikeways to BART, US-101 Overcrossings, and On-Street Trail Crossing.

Refer to the following figures for definitions of each project type and the locations at which they are proposed:

- Transit Priority (TP): **Figure 17** - Transit Priority Projects
- Major Streets (MS): **Figure 18** - Major Corridor Projects
- Bike Boulevards (BB): **Figure 19** - Bike Boulevard Projects
- Connections to BART (BART): **Figure 20** - Connection to BART Projects
- US-101 Overcrossings: **Figure 21** - US-101 Overcrossing Projects
- On-Street Trail Crossings (OSTC): **Figure 22** - On-Street Trail Crossing Projects

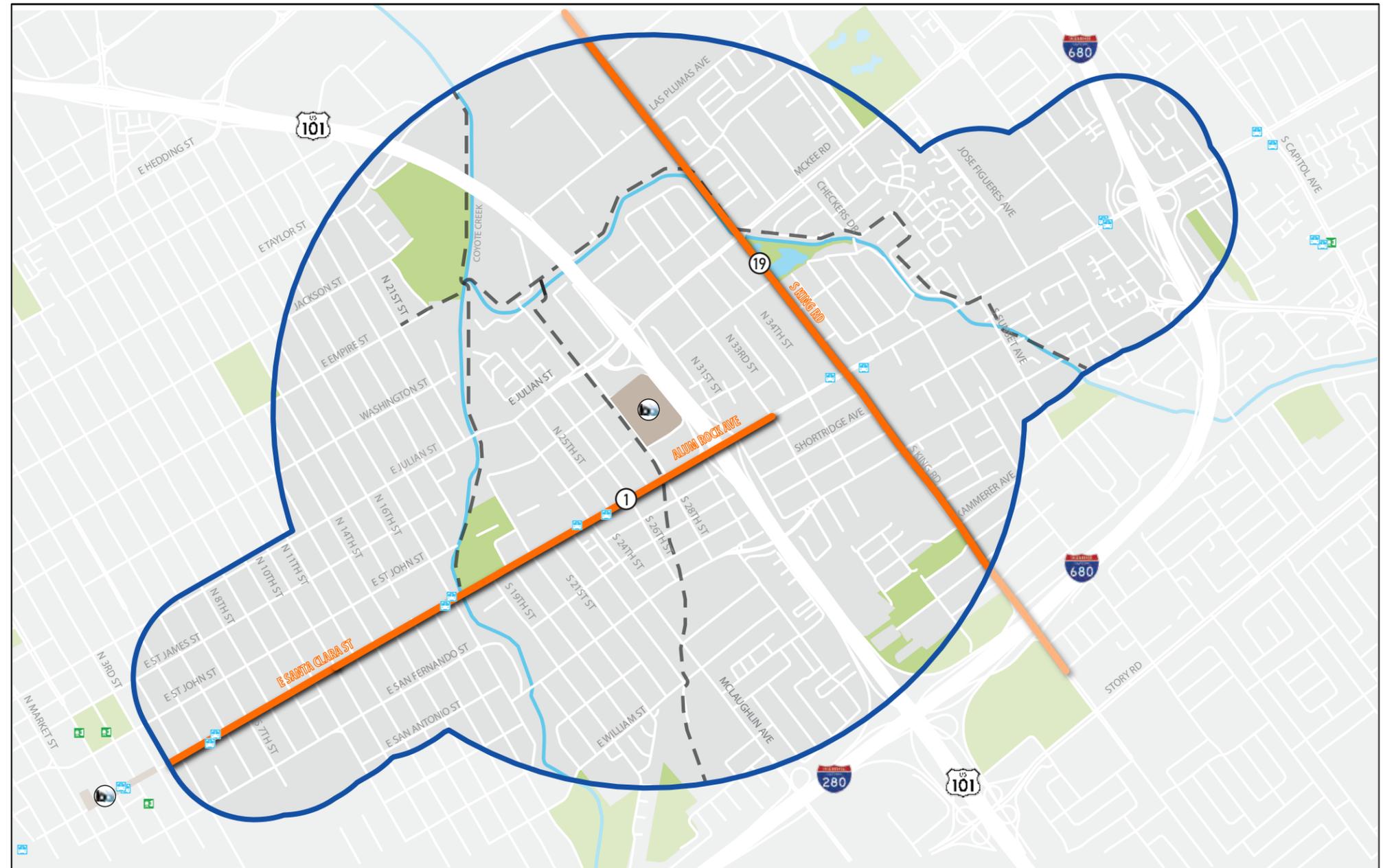
EAST SAN JOSÉ • MULTIMODAL TRANSPORTATION IMPROVEMENT PLAN

TRANSIT PRIORITY PROJECTS

Transit Priority projects prioritize reliable transit and promote a vibrant active retail corridor through multimodal improvements. These multimodal improvements may include enhanced pedestrian and bicycle connections, pedestrian-scale lighting, enhanced pedestrian crossings, traffic calming to slow automobile speeds, focus on transit reliability through dedicated lanes, queue jumps, or other transit improvements, enhanced transit stops, and signal improvements.

The following projects are designated as Transit Priority projects:

1. East Santa Clara St/Alum Rock Ave
19. King Rd



LEGEND

- Existing VTA Rapid Bus Stops
- Existing VTA LRT Stops

- VTA's BART Phase II Stations
- East San José MTIP Boundary

- Project Number
- Transit Priority



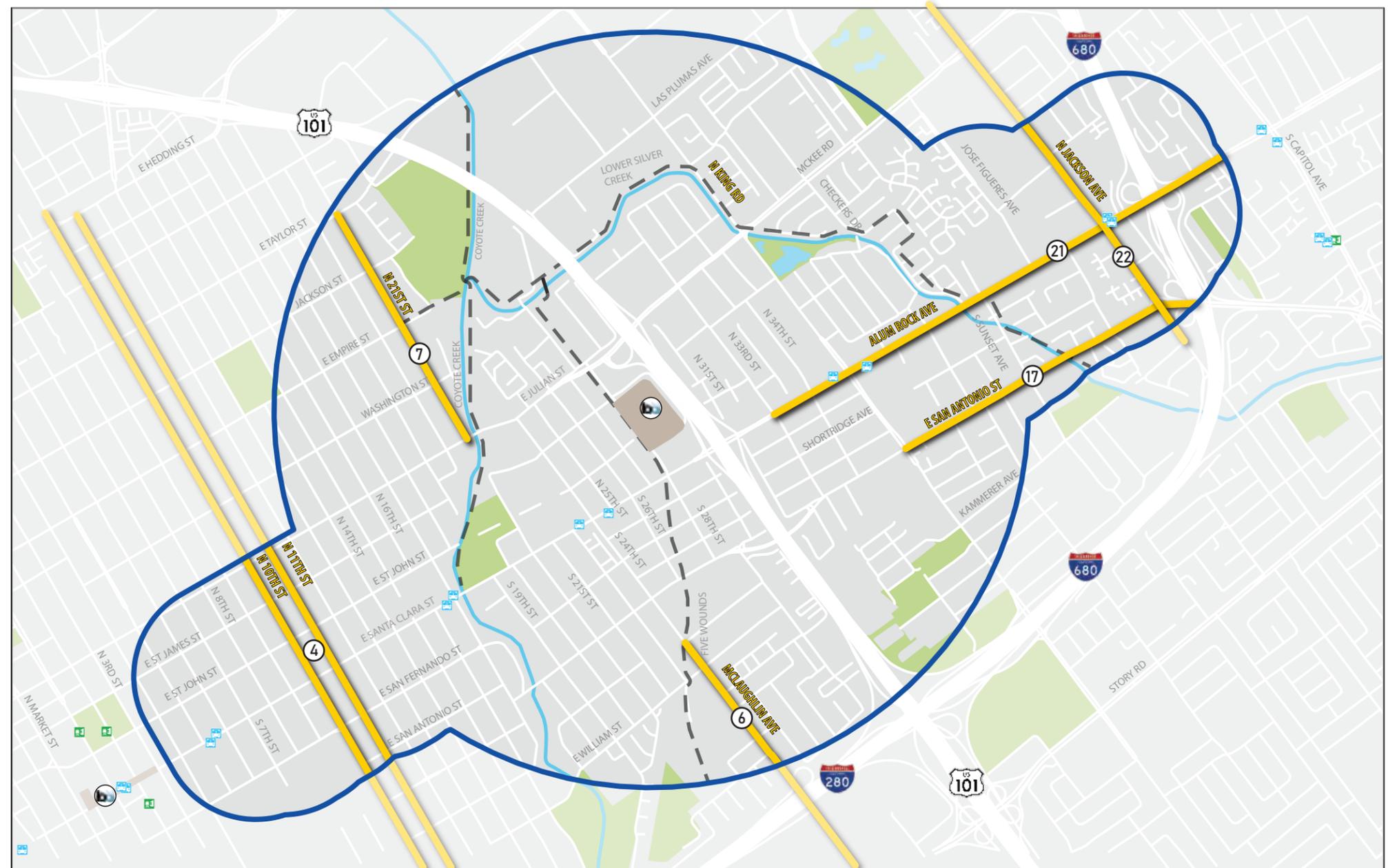
EAST SAN JOSÉ • MULTIMODAL TRANSPORTATION IMPROVEMENT PLAN

MAJOR STREET PROJECTS

Major Street projects enhance safety and comfort for people walking and biking along major streets. This can include improvements such as enhanced pedestrian and bicycle crossings, bicycle connections to points of interest, traffic calming to slow automobile speeds, enhanced transit stops and focus on transit reliability through dedicated lanes, queue jumps, or other transit improvements, signal improvements, wayfinding to orient users and enhance their experience, and conversion of one-way streets to two-way traffic.

The following projects are designated as Major Streets projects:

- 4. 10th St and 11th St
- 6. McLaughlin Ave
- 7. N 21st St
- 17. East San Antonio St
- 21. Alum Rock Ave
- 22. Jackson Ave



LEGEND

- Existing VTA Rapid Bus Stops
- Existing VTA LRT Stops

- VTA's BART Phase II Stations
- East San José MTIP Boundary

- Project Number
- Major Streets



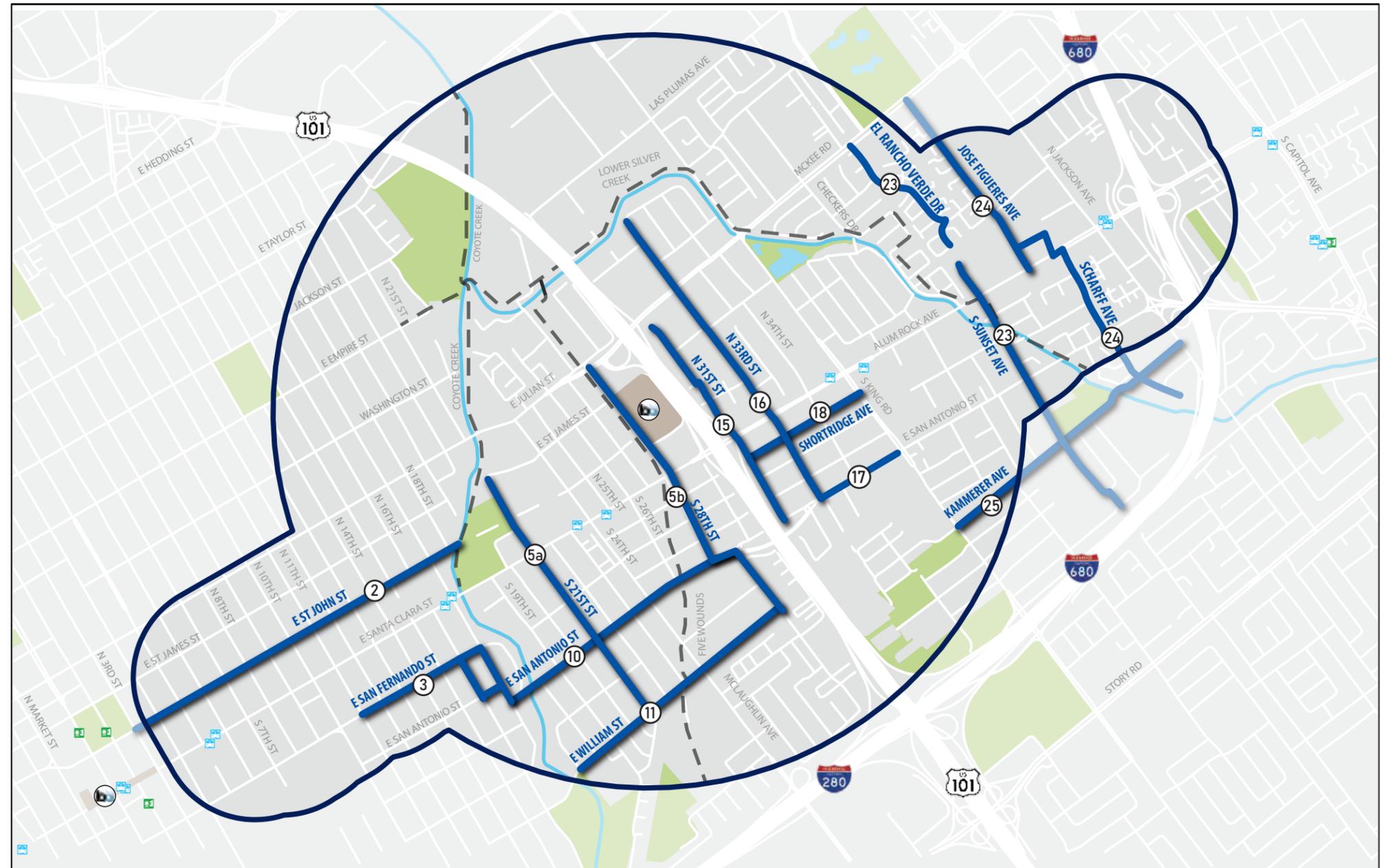
EAST SAN JOSÉ • MULTIMODAL TRANSPORTATION IMPROVEMENT PLAN

BIKE BOULEVARD PROJECTS

Bike Boulevard projects enhance safety and comfort for people walking and biking by calming traffic and providing bike connections on neighborhood streets that work for people of all ages and abilities. This would include improvements such as enhanced pedestrian crossings, additional pedestrian connections to points of interest, bicycle crossings across intersections, additional bicycle connections to points of interest, and traffic calming to slow automobile speeds.

The following projects are designated as Bike Boulevard projects:

- 2. East St. John St
- 3. East San Fernando St
- 5a. 21st St
- 5b. 28th St
- 10. East San Antonio St
- 11. East William St
- 15. North 31st St
- 16. North 33rd St
- 18. Shortridge Ave
- 17. San Antonio St
- 23. Sunset Boulevard and El Rancho Verde Dr
- 24. Jose Figueres Ave and Scharff Ave
- 25. Kammerer Ave



LEGEND

- Existing VTA Rapid Bus Stops
- Existing VTA LRT Stops

- VTA's BART Phase II Stations
- East San José MTIP Boundary

- Project Number
- Bike Boulevards



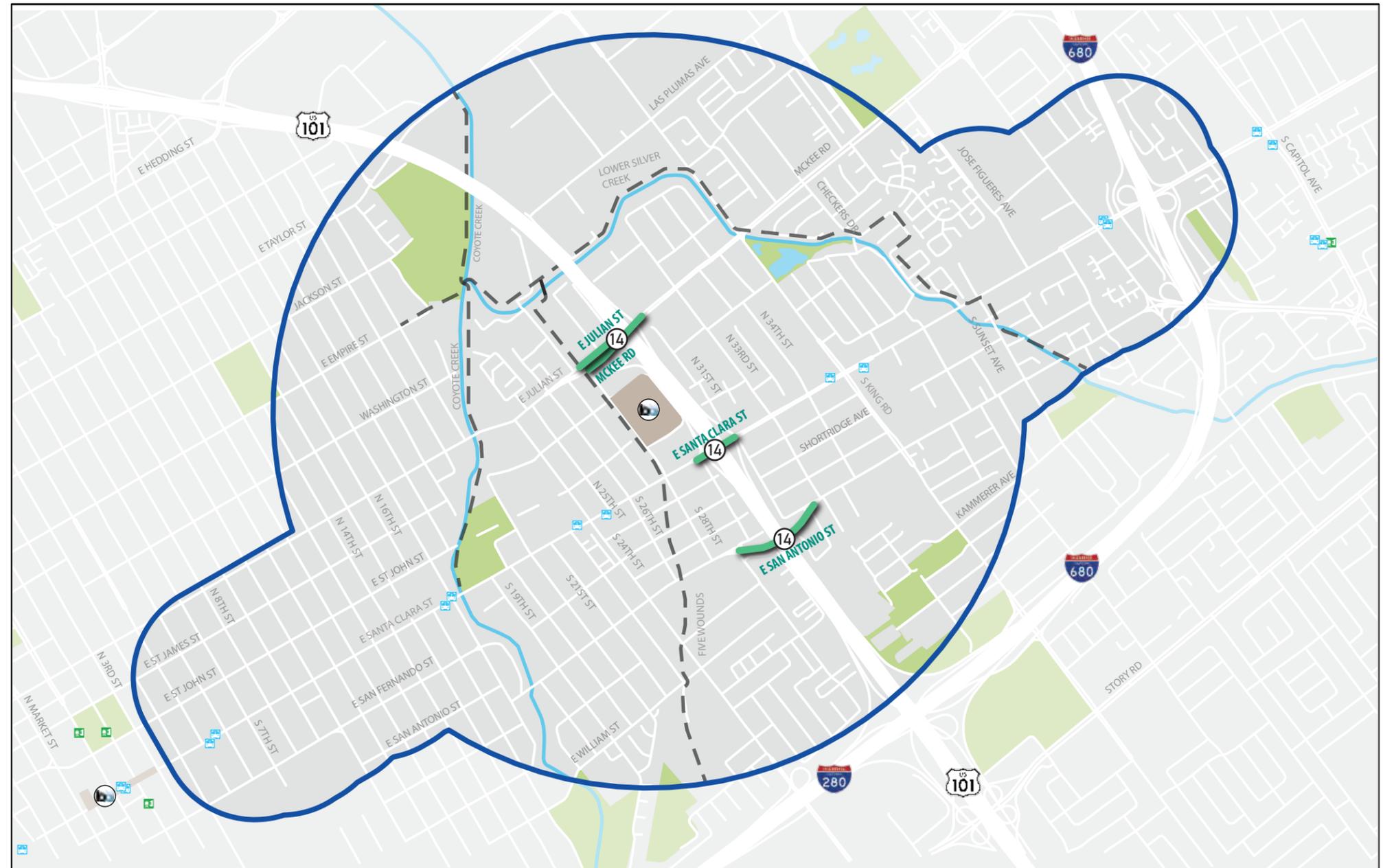
EAST SAN JOSÉ • MULTIMODAL TRANSPORTATION IMPROVEMENT PLAN

US-101 OVERCROSSING PROJECTS

US-101 Overcrossing projects improve the experience for people walk and biking over US-101. Crossings across freeways serve as major barriers to people walking and biking as they typically have narrower sidewalk widths and minimal bicycle facilities. Improvements for this category of projects may include treatments such as bicycle and pedestrian connections to points of interest, enhanced pedestrian crossings, off-street trail crossings, traffic calming to slow automobile speeds, and focus on transit reliability through dedicated lanes, queue jumps, or other transit improvements.

The following projects are designated as US-101 Overcrossing projects:

- 14. East Santa Clara St
- 14. East Julian Street/McKee Rd
- 14. East San Antonio St



LEGEND

- Existing VTA Rapid Bus Stops
- Existing VTA LRT Stops

- VTA's BART Phase II Stations
- East San José MTIP Boundary

- Project Number
- US-101 Overcrossings



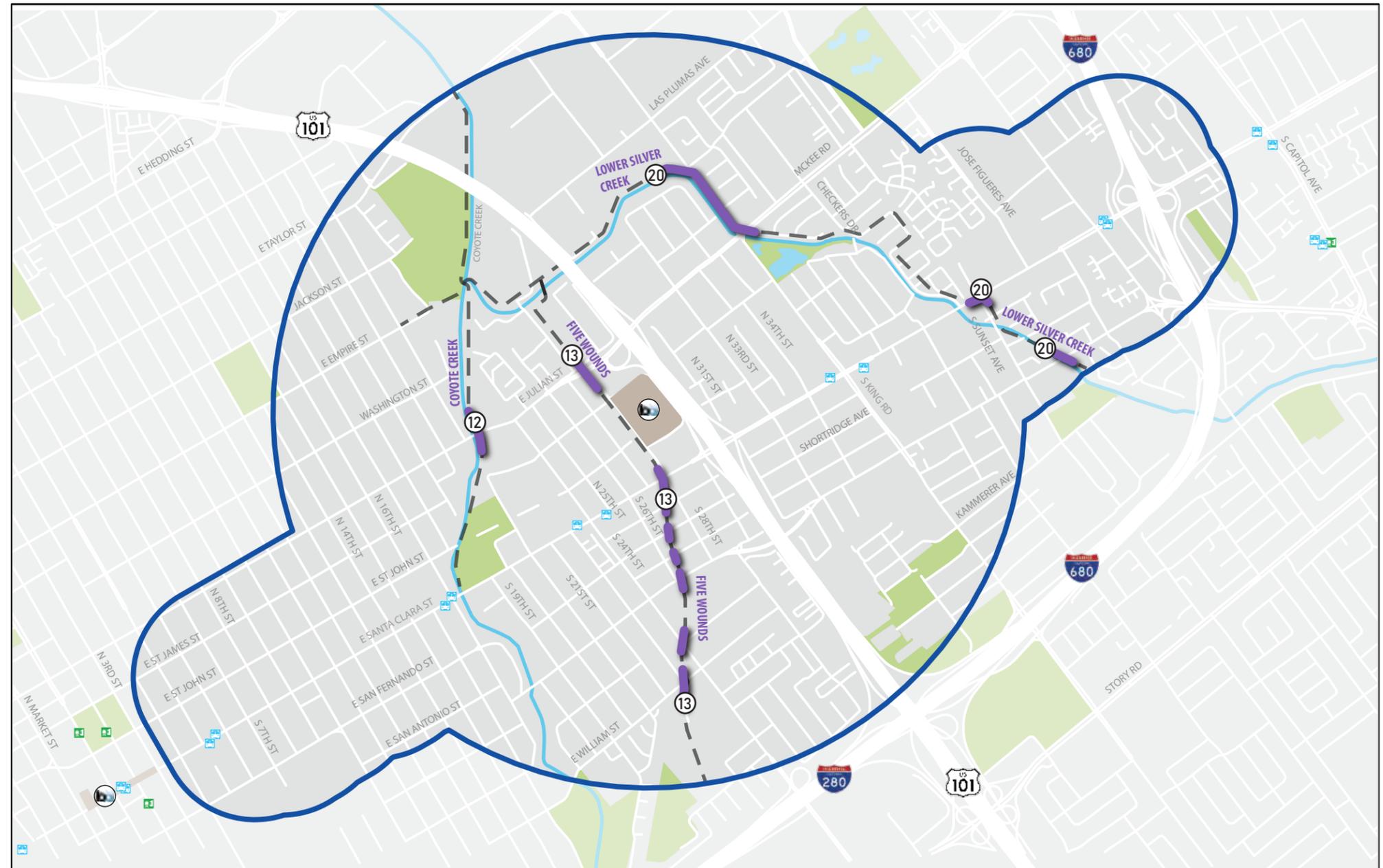
EAST SAN JOSÉ • MULTIMODAL TRANSPORTATION IMPROVEMENT PLAN

ON-STREET TRAIL CROSSING PROJECTS

On-Street Trail Crossing projects provide on-street connections to trails for people walking and biking. Although Coyote Creek, Lower Silver Creek, and Five Wounds Trails are planned to be off-street and away from vehicles, they will have to cross streets with vehicles at certain points. To create a seamless trail and provide safe crossings for users, enhancements may include a mixed-use path for both pedestrians and bicyclists, traffic calming to slow automobile speeds, enhanced pedestrian and bicycle crossings, wayfinding to orient users and enhance their experience, and pedestrian and bicycle connections to points of interest.

The following projects are designated as On-Street Trail Crossing projects:

- 12. Coyote Creek Trail
- 13. Five Wounds Trail
- 20. Lower Silver Creek Trail



LEGEND

- Existing VTA Rapid Bus Stops
- Existing VTA LRT Stops

- VTA's BART Phase II Stations
- East San José MTIP Boundary

- Project Number
- On-Street Trail Crossings



b. Website

The ESJ MTIP is an ongoing effort with plans to continue to advance and then implement the identified projects. Project definitions may change through continued public involvement, project design, and the availability of implementation funding. It should be noted that this document describes projects as they are defined as of February 2020. To find more or current information about the plan or individual projects, or how to get involved, please visit:

<https://www.sanjoseca.gov/your-government/departments-offices/transportation/planning-policies/east-san-jos-mtip>

c. Overview of Projects

The projects developed through community input and recommended for the MTIP are described in **Table 5** and a graphic of all the projects is shown in **Figure 23**.

Figure 24 shows the proposed bicycle network with implementation of all the proposed projects.

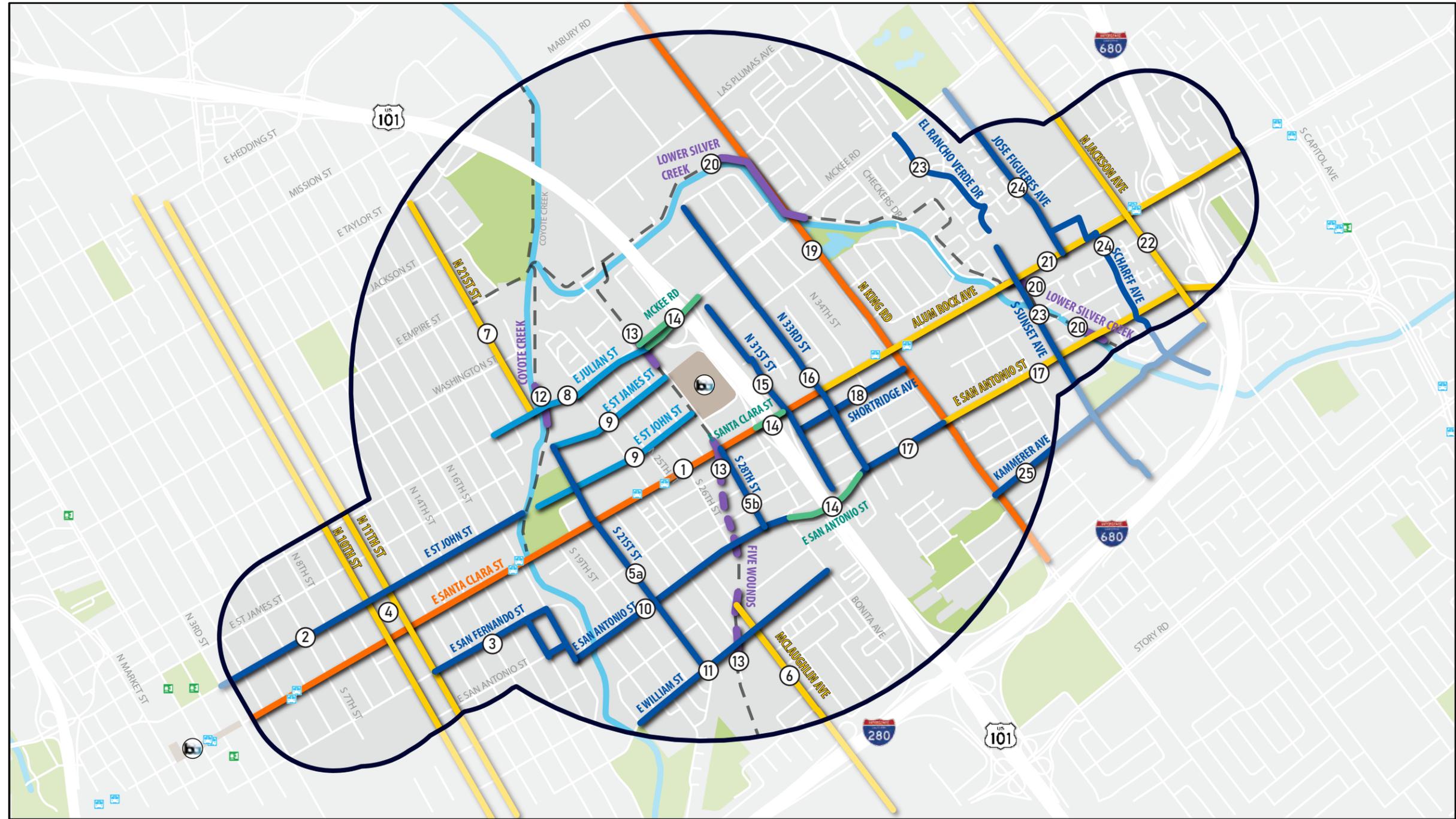
Project #	Project	Project Type	Existing/ Proposed Typology*	Project Need	Description	Benefits
1	E. Santa Clara Street	MS	Grand Blvd	Faster, more reliable times on the busiest bus corridor in the county.	Provides public service lanes (e.g., for emergency vehicles, buses, and other government vehicles only) with new/relocated/improved bus stops. Additional improvements include pedestrian countdown timers, accessible pedestrian signals (APS), leading pedestrian intervals at pedestrian hot spots, and improved crossings (especially to BART station). Further enhancements including street trees and landscaping and pedestrian scale lighting.	<ul style="list-style-type: none"> • Reduced transit travel times and increased bus reliability • Safer crossing for bicyclists and pedestrians at intersections. • Improved pedestrian facilities along retail corridor. • Improved experience for transit riders
2	St. John BB	BB	<i>On-Street Bicycle Facility</i>	Provide a bike connection from Downtown San José to Julian Street and potentially to the 28th Street/Little Portugal BART Station.	Provides High Visibility Pedestrian Crossings, ADA compliant elements (ramps, push buttons, etc.), pedestrian countdown timers and Accessible Pedestrian Signals (APS) at signalized intersections and bulbouts on all approaches. Bike Boulevard designation for corridor extent with signage and markings and traffic diverters/traffic circles where all-way stops are currently located.	<ul style="list-style-type: none"> • Safer crossing for bicyclists and pedestrians at intersections
3	San Fernando BB	BB	<i>On-Street Bicycle Facility</i>	Provide a bike connection from Downtown San José to the San Antonio Street bike corridor.	Eliminates stops and adds traffic calming (diverters, traffic circles, speed humps, bulbouts, etc.) where feasible. Bike Boulevard designation for corridor extent with signage and marking.	<ul style="list-style-type: none"> • Safer crossing for bicyclists • Calm traffic along corridor
4	10 th & 11 th	MS	Local Connector/ City Connector	Convert the two one-way street couple to two-way streets for increased accessibility and slower vehicle speeds.	Provides High Visibility Pedestrian Crossings at all crosswalks, pedestrian countdown timers, and APS. Additional improvements include bulbouts into parking lane at intersections, two-stage bike left-turn boxes at some intersections, and benches, shelters, wayfinding, and lighting at all bus stops. Proposes to convert one-way to two-way street north of E. Santa Clara Street and add bus transit islands.	<ul style="list-style-type: none"> • Safer crossing for bicyclists and pedestrians at intersections • Improved experience for transit riders • Improve comfort of bicycle facility
5A	21st Street BB	BB	<i>On-Street Bicycle Facility</i>	Provide a north-south bike connection connecting residential areas to Roosevelt Park and potentially to the 28th Street/Little Portugal BART Station.	Eliminates stops and adds traffic calming (diverters, traffic circles, speed humps, bulbouts, etc.) where feasible. Diverters may be provided at E Santa Clara and William St. Bike Boulevard designation for corridor extent with signage and markings. Advisory bike lanes are also under consideration.	<ul style="list-style-type: none"> • Safer crossing for bicyclists at intersection • Improve comfort of bicycle facility
5B	28th Street BB; Bonita Ave BB	BB	<i>On-Street Bicycle Facility</i>	Provide a key connection from the San Antonio Street bike corridor to the 28th Street/Little Portugal BART Station.	Adds traffic calming (diverters, traffic circles, speed humps, bulbouts, etc.) where feasible and Bike Boulevard designation for corridor extent with signage and markings. Traffic calming around Peach Court on Bonita between William and San Antonio St.	<ul style="list-style-type: none"> • Safer crossing for bicyclists at intersection • Improve comfort of bicycle facility
6	McLaughlin MS	MS	City Connector/ Residential St	Provide a continuation of the north-south bike corridor west of US-101.	Provides Class IV bike lane as feasible and buffered Class II where infeasible. Additional improvements include High Visibility Pedestrian Crossings, pedestrian countdown timers, Accessible Pedestrian Signals (APS) at signalized intersections, and bulbouts at all street intersections where feasible.	<ul style="list-style-type: none"> • Safer crossing for bicyclists and pedestrians at intersections • Improve comfort of bicycle facility
7	21 st Streets	MS	<i>Local Connector</i>	Provide a connection for bicyclists from Julian Street to Watson Park and other destinations north of the study area.	Provides intersection crossing marks and green conflict zone striping and wayfinding signage along corridor. Narrow travel lanes and provide buffered bike lanes.	<ul style="list-style-type: none"> • Safer crossing for bicyclists at intersection • Improve comfort of bicycle facility
8	Julian BART Connection	BART	Local Connector/ City Connector	Provide users of Julian Street a connection to the 28th Street/Little Portugal BART Station.	Provides Class II bikeway between 19th - 21st with a bike box at 19th and Class IV bikeway between 21st - 101 Overcrossing. Alternatives are proposed for this project including constructing a bus boarding island. Additional improvements include High Visibility Pedestrian Crossings, ADA compliant elements (ramps, push buttons, etc.), pedestrian countdown timers and Accessible Pedestrian Signals (APS) at signalized intersections. Bulbouts will be provided on street approaches where feasible. Implement leading pedestrian intervals at all intersections with bus stops and include benches, shelters, pedestrian-scale lighting, and provide real-time arrival information at all bus stops.	<ul style="list-style-type: none"> • Safer crossing for bicyclists and pedestrians at intersections • Improved experience for transit riders • Reduced conflict between bus and bike • Improve comfort of bicycle facility
9	St. John/St. James BART Connection	BART	<i>Local Connector</i>	Bridge over Coyote Creek would remove a major barrier to pedestrians and bicyclists.	Installs High Visibility Pedestrian Crossings, ADA compliant elements (ramps, push buttons, etc.), pedestrian countdown timers and Accessible Pedestrian Signals (APS) at signalized intersections. Create new bike/ped bridge over Coyote Creek and extend through Roosevelt Park and San Jose High School fields providing access to Santa Clara Street. Bike Boulevard designation for corridor extent with signage and markings and bulbouts on all approaches where feasible. Add traffic calming to St. James Street regardless of alignment.	<ul style="list-style-type: none"> • Safer crossing for bicyclists and pedestrians at intersections • Provide low-stress bicycle connection to future BART station
10	San Antonio BB	BB	<i>On-Street Bicycle Facility</i>	Serve as the only major east-west connection for bicyclists through the study area.	Provides traffic circles in place of stop signs and diverters and bulbouts on approaches where feasible. Provide enhanced bus stops (lights, trash receptacles, benches, real time arrival). New crossings at two locations between 18th and 23rd and at 34th/Sedona PI using RRFB or traffic circles. Bike Boulevard designation up to Bonita with signage and markings.	<ul style="list-style-type: none"> • Improved biking safety and comfort • Reduced delay for bicyclists • Reduced cut-through auto traffic • Improved pedestrian facility • Improved experience for transit riders
11	E. William BB	BB	<i>On-Street Bicycle Facility</i>	Provide a connection for pedestrians and bicyclists from William Street Park to the bicycle network.	Eliminates stops and adds traffic calming (diverters, traffic circles, speed humps, bulbouts, etc.) where feasible. Bike Boulevard designation for corridor extent with signage and markings. Provide High Visibility Pedestrian Crossings, ADA compliant elements (ramps, push buttons, etc.), pedestrian countdown timers and Accessible Pedestrian Signals (APS) at signalized intersections.	<ul style="list-style-type: none"> • Safer crossing for bicyclists and pedestrians at intersections • Improve bicycle facility

*Street typology in italics if there is a proposed change in street typology

Project #	Project	Project Type	Existing/ Proposed Typology*	Project Need	Description	Benefits
12	Coyote Creek OSTC	OSTC	N/A	Safer and more seamless trail crossings for users.	Provides enhanced/raised trail crossing with trail wayfinding across Julian including RRFB, raised crosswalk, and restriping.	<ul style="list-style-type: none"> • Connection to regional trail network • High-quality bicycle and pedestrian facility • Safer crossings of trail at intersection
13	Five Wounds OSTC	OSTC	N/A	Safer and more seamless trail crossings for users.	Provides cross-track across Santa Clara Street and two-stage bike turn box or protected intersection. Narrow streets at trail crossings, widen sidewalks on trail segments, and provide RRFB or PHB crossing. Provide enhanced/raised trail crossing, and bulbouts.	<ul style="list-style-type: none"> • Connection to regional trail network • High-quality bicycle and pedestrian facility • Safer crossings of trail at intersection
14	101 Overcrossings	101 Overcrossing	N/A	Remove a major barrier to pedestrians and bicyclists and fills a major gap in the network.	Widens sidewalks to create protected shared use path, reduced curb radii at on and off ramps, and enhanced pedestrian crossings.	<ul style="list-style-type: none"> • Safer crossing for bicyclists and pedestrians
15	31 st BB	BB	Residential St	Provide a bike connection from the San Antonio bike corridor to residential areas and fill major gaps in the pedestrian network.	Constructs missing sidewalk segments and eliminate stops and add traffic calming (diverters, traffic circles, speed humps, bulbouts, etc.) where feasible. Modify/upgrade bike/ped connections and install wayfinding signage along corridor to enhance experience. Bike Boulevard designation for corridor extent with signage and markings.	<ul style="list-style-type: none"> • Safer crossing for bicyclists and pedestrians at intersections • Improved comfort of pedestrian facility
16	33 rd BB	BB	Residential St/ <i>On-Street Bike Facility</i>	Serve as a major north-south bike corridor east of US-101.	Eliminates stops and adds traffic calming (diverters, traffic circles, speed humps, bulbouts, etc.) where feasible. Bike Boulevard designation for corridor extent with signage and markings. Potential connections to Lower Silver Creek Trail (when built) may be feasible.	<ul style="list-style-type: none"> • Safer crossing for bicyclists at intersection • Improve comfort of bicycle facility
17	San Antonio MS	MS	On-Street Bicycle Facility	Calm traffic on a major bike boulevard to make it safer for pedestrians and bicyclists.	Installs Class IV Bikeways and provides High Visibility Pedestrian Crossings, ADA compliant elements (ramps, push buttons, etc.), pedestrian countdown timers and Accessible Pedestrian Signals (APS) at signalized intersections. Bulbouts provided on approaches where feasible with green conflict striping at intersections/conflict points. Additional improvements at the intersection of Jackson Street and traffic circles where feasible may be implemented.	<ul style="list-style-type: none"> • Safer crossing for bicyclists and pedestrians at intersections • Calm traffic along corridor • Improve comfort of bicycle facility
18	Shortridge BB	BB	Residential St/ <i>On-Street Bike Facility</i>	Provide a key bike connection to the Mexican Heritage Plaza.	Implements bike lane/route as developed through Better Bikeways Project and provides pedestrian crossing with RRFB or PHB along with wayfinding signage along corridor.	<ul style="list-style-type: none"> • Improved ability to cross King Road • Improved bicycle facility
19	King Road TP	TP	Local Connector/ <i>Grand Blvd</i>	Increased transit speeds and reliability on a bus corridor serving multiple routes.	Upgrades existing bikeways to Class IV and provides bus queue jumps, bulbouts, tightened curb radii on street approaches where feasible. Provides Install High Visibility Pedestrian Crossings, ADA compliant elements (ramps, push buttons, etc.), pedestrian countdown timers and Accessible Pedestrian Signals (APS) at signalized intersections. Additional improvements include crosswalks across minor approaches at unsignalized crossings, green conflict striping at intersections/conflict points, benches, shelters, pedestrian-scale lighting, and real-time arrival information at all bus stops, and leading pedestrian intervals at all intersections with bus stops. Improvements are proposed for specific intersections.	<ul style="list-style-type: none"> • Safer crossing for bicyclists and pedestrians at intersections • Improved experience for transit riders • Reduced conflict between bus and bike
20	Lower Silver Creek OSTC	OSTC	N/A	Safer and more seamless trail crossings for users.	Provides enhanced/raised trail crossing with median island and bulbouts where feasible, RRFBs, intersection crossing marks, green conflict zone striping, and trail wayfinding. Additional improvements include a Class II bike lane, widened sidewalks, mixed use path and intersection improvements.	<ul style="list-style-type: none"> • Connection to regional trail network • High-quality bicycle and pedestrian facility • Safer crossings of trail at intersection
21	Alum Rock MS	MS	Grand Blvd	Encourage pedestrian and bicyclist activity in the retail corridor.	Provides High Visibility Pedestrian Crossings, ADA compliant elements (ramps, push buttons, etc.), pedestrian countdown timers, and Accessible Pedestrian Signals (APS). Additional improvements may include bulbouts, curb extensions for in-lane stopping at local bus stops, and new/relocated/improved bus stops. Leading pedestrian intervals at all intersections with bus stops may be implemented.	<ul style="list-style-type: none"> • Improved pedestrian facilities along retail corridor • Improved experience for transit riders
22	Jackson TP	MS	Local Connector	Increased transit speeds and reliability on a bus corridor serving multiple routes.	Provides bus queue jumps, High Visibility Pedestrian Crossings, pedestrian countdown timers, and Accessible Pedestrian Signals (APS) at signalized intersections. Enhanced bus stops (lights, trash receptacles, benches, real time arrival) and crosswalks across unsignalized intersections. Additional improvements may include converting existing buffered bikeways into protected bikeways, bulbouts on minor street approaches where feasible, and green conflict striping at intersections/conflict points.	<ul style="list-style-type: none"> • Safer crossing for bicyclists and pedestrians at intersections • Improved experience for transit riders
23	Sunset BB	BB	Residential St/ <i>On-Street Bike Facility</i>	Provide a north-south connection between the San Antonio bike corridor and Alum Rock Avenue.	Eliminates stops and adds traffic calming (diverters, traffic circles, speed humps, bulbouts, etc.) where feasible. Bike Boulevard designation for corridor extent with signage and marking. Traffic circles will be considered where feasible.	<ul style="list-style-type: none"> • Safer crossing for bicyclists and pedestrians at intersections
24	Jose Figueres BB	BB	<i>On-Street Bicycle Facility</i>	Provide a connection for bicyclists from the residential areas to Alum Rock Avenue.	Eliminates stops and adds traffic calming (diverters, traffic circles, speed humps, bulbouts, etc.) where feasible. Bike Boulevard designation for corridor extent with signage and marking.	<ul style="list-style-type: none"> • Safer crossing for bicyclists at intersection • Improve comfort of bicycle facility
25	Kammerer BB	BB	<i>On-Street Bicycle Facility</i>	Provide a connection for bicyclists to Mayfair Community Center.	Eliminates stops and adds traffic calming (diverters, traffic circles, speed humps, bulbouts, etc.) where feasible. Bike Boulevard designation for corridor extent with signage and marking. Incorporation of local art will be given consideration.	<ul style="list-style-type: none"> • Safer crossing for bicyclists and pedestrians at intersections • Improve comfort of bicycle facility

*Street typology in italics if there is a proposed change in street typology

PROJECT RECOMMENDATION CORRIDORS



LEGEND

- Existing VTA Rapid Bus Stops
- Existing VTA LRT Stops

- East San José MTIP Boundary
- VTA's BART Phase II Stations

- Bikeway to BART
- Bike Boulevards

- On-Street Trail Connections
- US-101 Overcrossings

- Transit Priority
- Major Streets



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LEGEND

- VTA's BART Phase I Extension Alignment
- - - VTA's BART Phase II Extension Alignment
- VTA's BART Phase II Stations
- East San José MTIP Boundary

- Existing VTA Rapid Bus Stops
- Existing VTA LRT Stops
- Ford GoBike Stations

Existing Bikeways

- Class I Off-Street Trail
- Class II On-Street Bike Lane
- Class III On-Street Bike Route
- Class IV On-Street Protected Bike Lane

Planned Bikeways

- - - Class I
- - - Class II
- - - Class III
- - - Class IV



Source:
City of San José

8. PRIORITIZATION

This section provides a brief overview of the prioritization framework as well as the prioritized list of projects. To see the MTIP goals, associated metrics, scoring guidelines, and cost estimates in detail, see **Appendix B**.

a. Prioritization Tool Development

Because the City cannot build everything at once, the project team has developed an evaluation framework to prioritize investment in projects that best align with City and community goals. The evaluation framework uses a scoring system and enables a transparent and consistent project prioritization process. The evaluation framework centers on eight MTIP goals and associated metrics, which can be found in **Table 6**.

As described in **Chapter 4**, the MTIP goals were developed with input from community members, City goals and policies, and other considerations necessary for implementing transportation projects. The evaluation framework for those goals was then developed with additional input from community members and partners. During a second round of outreach, the public validated the evaluation framework and metrics. Community partners were also directly involved in developing a project implementation process that considers the MTIP goal of preservation and protection (see **Chapter 9**).

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Table 6 - Prioritization Metrics

Priority	Metrics
Equity	Improves access to schools
	Improves access to senior and community centers
	Expands connections to jobs for nearby local residents, especially for low-income households
Preservation and Protection	Improves access and mobility with locally serving projects that support affordability
Local Economy	Increases sidewalk width on retail streets
	Includes trees on retail streets
	Includes pedestrian lighting on retail streets
	Supports and sustains local businesses
Community Serving	There is community support
	Prioritizes movement of people over movement of vehicles
Public Life	Improves connections to parks, local cultural centers, and community centers
	Incorporates landscape design and lighting to create more vibrant public spaces
Safety and Health	Improves pedestrian and bicycle safety at a location with many collisions
	Improves street design to prevent vehicle collisions
	Reduces vehicle speeds
	Closes a gap in the trail, bike, or sidewalk network
Climate	Provides connections for people who walk and bike so that there is an alternative to driving
	Improves access to the BRT and/or future BART station
Cost effectiveness	Requires lower operating and maintenance costs
Deliverability	Project permitting and approvals process will not require excessive time and effort
	Generates minimal construction impacts
	A funding partnership opportunity exists
	An opportunity to coordinate with the paving program exists

b. Scoring System

The project team developed a scorecard that includes two to five metrics for each project goal. Within the scorecard, each project receives between 0 and 5 unweighted points for each metric. The scores for each metric are then weighted and averaged with the other metrics under the same project goal. The assigned weights were based on input from the community during the second round of community outreach in June 2019.

To further understand the scoring system, consider the following example: under the MTIP goal of equity there are three metrics: (1) improves access to schools; (2) improves access to senior and community centers; and (3) expands connections to jobs for local residents, especially for low-income households. During the planning process, community members indicated that they valued expanding

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connections to jobs more than improving access to schools or senior and community centers. Therefore, expanding connections to jobs has a weighted value of 3, whereas the other two metrics have weighted values of 1. A project that receives a maximum score of 5 for all three metrics would receive 8.3 points on the scorecard under equity. The math is as follows:

Goal: Equity

Metric 1 - schools: 5×1 (weight) = 5

Metric 2 - Senior community centers: 5×1 (weight) = 5

Metric 3 - Connections to jobs: 5×3 (weight) = 15

Average of all 3 metrics = 8.3

The scores for all goals are added together to establish the Total Aggregate Score. The Total Aggregate Score measures how well a project aligns with city and community goals. However, it does not account for the scale of a project.

c. Magnitude of Benefit

The scores for all goals are added together to establish the Total Aggregate Score. The Total Aggregate

When all else is equal, a project that benefits more people should score higher than a project that benefits fewer people. To account for scale, the project team developed the Magnitude of Benefit (MOB) Coefficient. The MOB Coefficient is equal to the service population¹ located within a quarter mile of the project, the “proximate community,” divided by the service population of the MTIP area, plus the average daily traffic (ADT) on the project corridor divided by the total MTIP ADT².

$$\text{Magnitude of Benefit Coefficient} = \frac{\text{Proximate Community}}{\text{Total Community}} + \frac{\text{Corridor ADT}}{\text{Total MTIP ADT}}$$

$$\text{Proximate Community} = \# \text{ of residents} + \# \text{ of workers within } \frac{1}{4} \text{ mile of project}$$

The Total Aggregate Score is multiplied by the MOB Coefficient to establish the Adjusted Benefit value.

d. Cost Benefit Analysis

The project team developed high level cost estimates based on design details included in the conceptual plans for each project. While these cost estimates are high level, they offer enough to identify significant implementation hurdles and to compare the benefit/cost ratio between projects. The final step in the evaluation framework is to divide the Adjusted Benefit Value for each project by the relative cost estimate. The resulting figure, the Benefit/Cost value, determines each project’s rank on the prioritized list of projects.

¹ Service population is the sum of the residential population and total workers in a given area.

² The goal is to eventually use multimodal ADT, but at present only automobile data is available.

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e. Current Prioritized List of Projects

The project team has conducted an initial prioritization of projects based on the established goals and metrics, presented in **Table 7**.

The prioritization of projects will be an iterative process. As the City develops more detailed designs, the prioritization is expected to adjust as project definitions, scores, and cost estimates change.

Table 7 - Prioritized Projects List

Rank	Project	Limits	Project Type	Improvement Category
1	E. Santa Clara	30th to 31st	US-101 Overcrossing	Striping Only
2	E. St. John	3rd to 16th	Bike Boulevard	Striping Only
3	21st St. BB	Roosevelt Park to William	Bike Boulevard	Striping Only
4	28th St	ESC to William (via Bonita)	Bike Boulevard	Striping Only
5	21st St. BB	Roosevelt Park to William	Bike Boulevard	Infrastructure
6	Jose Figueres	Alum Rock to El Ranch Verde/McKee	Bike Boulevard	Striping Only
7	21st St.	Taylor to Julian	Major Streets	Striping Only
8	21st St.	Taylor to Julian	Major Streets	Infrastructure
9	E. San Antonio	17th to Bonita, 33rd to King	Bike Boulevard	Striping Only
10	E. St. John	3rd to 16th	Bike Boulevard	Infrastructure
11	N. 31st St.	E. San Antonio to E. St. James	Bike Boulevard	Infrastructure
12	E. William	Brookwood to 24th	Bike Boulevard	Striping Only
13	E. San Fernando	11th to San Antonio	Bike Boulevard	Infrastructure
14	E. San Antonio	17th to Bonita, 33rd to King	Bike Boulevard	Infrastructure
15	E. William	Brookwood to 24th	Bike Boulevard	Infrastructure
16	Kammerer Ave.	King to Jackson Ave	Bike Boulevard	Striping Only
17	ESC/Alum Rock (w/o PBL)	4th Street to 33rd St.	Transit Priority	Striping Only
18	E. Santa Clara	30th to 31st	US-101 Overcrossing	Infrastructure
19	Sunset Blvd.	McKee to 680	Bike Boulevard	Striping Only
20	Sunset Blvd.	E. San Antonio to 680	Bike Boulevard	Infrastructure
21	San Antonio (w/ PBL)	King to Jackson Ave	Major Streets	Striping Only
22	ESC/Alum Rock (w/o PBL)	4th Street to 33rd St.	Transit Priority	Infrastructure
23	28th St	ESC to William (via Bonita)	Bike Boulevard	Infrastructure
24	Shortridge Ave	31st to King	Bike Boulevard	Infrastructure
25	San Antonio (w/o PBL)	King to Jackson Ave	Major Streets	Striping Only
26	Coyote Creek Trail	Corridor	On-Street Trail Crossing	Infrastructure
27	Five Wounds Trail	21st and Julian	On-Street Trail Crossing	Infrastructure
28	Kammerer Ave.	King to Sunset	Bike Boulevard	Infrastructure
29	McLaughlin	William to Story	Major Streets	Striping Only
30	N. 33rd St.	E. San Antonio to Las Plumas	Bike Boulevard	Striping Only
31	Julian/McKee	28th to On/off ramp	US-101 Overcrossing	Infrastructure
32	San Antonio (w/ PBL)	King to Jackson Ave	Major Streets	Infrastructure
33	San Antonio	Bonita to San Antonio	US-101 Overcrossing	Infrastructure
34	King Road	Mabury to 680	Transit Priority	Striping Only
35	Alum Rock (w/o BL)	33rd to Alexander	Major Streets	Striping Only
36	Jackson Ave	Kammerer to Mabury	Transit Priority	Infrastructure
37	Julian	19th to 28th	Bikeway to BART	Striping Only
38	McLaughlin	William to I-280	Major Streets	Infrastructure
39	Alum Rock (w/o BL)	33rd to Alexander	Major Streets	Infrastructure
40	Lower Silver Creek Trail	Corridor	On-Street Trail Crossing	Infrastructure
41	King Road	Mabury to 280	Transit Priority	Infrastructure
42	10th and 11th St	I-280 to Hedding	Major Streets	Infrastructure
43	Julian	19th to 28th	Bikeway to BART	Infrastructure
44	Jose Figueres	Alum Rock to El Ranch Verde/McKee	Bike Boulevard	Infrastructure
45	St. John	Coyote Creek to 28th	Bikeway to BART	Infrastructure
46	St. James	Coyote Creek to 28th	Bikeway to BART	Infrastructure
47	N. 33rd St.	E. San Antonio to Melody Lane	Bike Boulevard	Infrastructure

9. IMPLEMENTATION

a. Sustained Engagement and Community Ownership

Sustained and inclusive community engagement through the implementation phase is necessary to support the development of mobility connections that minimize displacement. The project prioritization and evaluation framework for the Preservation and Protection priority holds the City accountable to maintain continued inclusive engagement with the community throughout the development and implementation of projects. The Preservation and Protection priority was initially developed with input from community partners, a core group of local stakeholders, and members of the public early in the project, and the scoring criteria for this priority was developed in close collaboration with community partners at SOMOS Mayfair and VIVO.

The evaluation framework for the Preservation and Protection priority focuses on a process-oriented approach that will support a commitment to maintaining stakeholder roles in project implementation, prioritizing locally-driven projects, and continuing meaningful community involvement after the current project team is no longer involved in this process. The process-oriented approach is informed by the Spectrum of Community Engagement to Ownership, a tool developed by Facilitating Power in partnership with Movement Strategy Center (**Figure 25**). This tool describes a range of community ownership levels, from zero to full ownership, and different forms of community engagement that relate to each level; as the amount of community ownership increases, the City’s accountability to the community also increases.

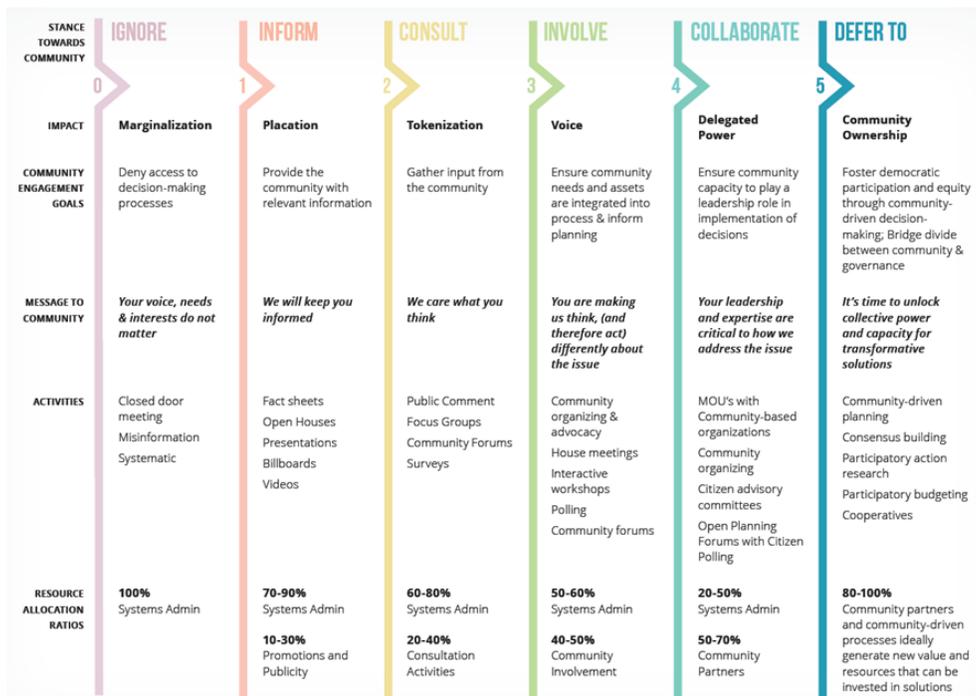


Figure 25 – The Spectrum of Community Engagement to Ownership

Source: Rosa González, *Facilitating Power in Partnership with Movement Strategy Center* (2019)

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Throughout the development of the ESJ MTIP, the project team involved the local community in the process via interactive workshops, one-on-one conversations throughout the neighborhood, surveys, and open house meetings, consistent with the community engagement goals, message to community, and activities that the *Spectrum of Community Engagement to Ownership* tool identifies as *Involve* (level 3 of engagement).

Going forward, the City will continue to *Involve* the community and strive to establish more opportunities to *Collaborate* (level 4 of engagement) and build community ownership or *Defer To* (level 5 of engagement). The specific levels of engagement during the implementation process will vary depending on project details and the scale of the project's impacts on the community. The level of engagement will be established by a community working group, as described below. Community partners indicated that the resources and time intensive process required to achieve *Defer To* is not always practical or necessary to ensure that decisions reflect community preferences. Thus, the City will focus its efforts primarily on *Collaborating* with the community, and in doing so, will look for opportunities to go beyond that and support community ownership of decisions as possible.

i. Recommended Strategies

To ensure community ownership and to continue sustained, transparent conversation with the community throughout the implementation process, the City is committed to the following engagement strategies:

- Convene an *En Movimiento* Community Advisory Group (CAG)
- Provide project updates and solicit input via online engagement tool(s)
- Consider development of a resolution or ordinance to formalize the City's commitment to meeting transportation equity goals in the East San José neighborhood

The community engagement process will be iterative. After each project is implemented, the CAG and the City will review and discuss the effectiveness of the associated engagement process and adjust approach and plans for future engagement accordingly. The City will remain transparent about their engagement efforts to ensure that stakeholders are empowered to shape decisions and guide the project implementation processes going forward in ways that are appropriate for the specific project contexts and timelines. More detail about the three engagement strategies is included in the following sections.

Convene an *En Movimiento* Community Advisory Group

The City will convene a Community Advisory Group that will help to implement *En Movimiento* project recommendations and hold the City accountable to accomplishing the *En Movimiento* priorities (presented in **Chapter 4**). To ensure the CAG is effectively integrated into the City's *En Movimiento* implementation process, the City will need to dedicate staff time and resources to establish this group and to partner with CAG members throughout the implementation process. This section provides an overview of how the City should recruit CAG members and establish the group's roles and responsibilities, and includes a preliminary list of CAG responsibilities.

Recruitment Process

The City will conduct targeted outreach to recruit CAG members and identify a diverse group of local stakeholders, businesses, and residents. The group will include community members who are

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representative of local demographics, including communities of color who experience transportation inequities in East San José, and thus can speak to the equity barriers, needs, and desired outcomes and potential strategies to implement projects. The recruitment process will be accessible to a diverse group of community members, using languages and communication tools that align with the needs of the community.

Building on the list of primary and most active stakeholders that participated in and defined community needs in the planning phase of *En Movimiento*, **Table 8** provides a preliminary list of potential CAG participants. This list of potential participants identifies residents, business owners, and organizations that live and/or work in the *En Movimiento* project area, and the recruitment process should focus on these and other local representatives who know the area and unique neighborhood mobility and access needs. If the person identified by the City is unable to participate, they could designate an alternative representative. Preference will be given to people who live and/or work in East San José; people who work at organizations who represent the communities in the neighborhood also will be included.

Table 8 – Preliminary List of CAG Members

Affiliation	Name
CommUniverCity	Imelda Rodriguez, Terry Christiansen
Latino Business Foundation	Mimi Hernandez
SOMOS	Ana Vargas Lau, Matthew Gustafson
VIVO	Pete Nguyen, Bao Trieu
Plata-Arroyo Neighborhood Association, Community activist	Danny Garza
Local business owner	Davide Vierra
Alum Rock Santa Clara Street Business Association	Jesus Flores, Carlos Diaz
Veggielution	Cayce Hill
School of Arts and Culture at Mexican Heritage Plaza	Vanessa Shieh
Cristo Rey San Jose Jesuit High School	Luis Heredia
California Walks/ Walk San José	Niki ta Sinha
Ride East Side San José	Justin Triano

Co-define CAG Role and Responsibilities

Once CAG members are identified, CAG members and City staff will co-define the group’s role and responsibilities. The City will document the outcomes of this co-definition process in a CAG charter and operational agreement to ensure transparency about group expectations. The following items will be defined during the co-definition process:

- Determine if the community would prefer to incorporate *En Movimiento* discussions into an existing group or establish a separate, new advisory group

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- Set expectations about time commitment and level of involvement for CAG members
- Define how the City will be transparent with the community throughout the implementation process; consider communication and outreach protocol for coordination with the CAG and for communicating with the broader community, opportunities to stay aware of or attend meetings with decision makers, etc.
- Establish the level of oversight this group will have over budgeting and resource allocation decisions and a process that is suitable for both parties; consider opportunities for the group chair, or co-chairs, to attend internal City DOT decision-making meetings to ensure sufficient oversight and accountability
- Identify if a stipend can be provided to CAG members (the availability of funding will likely be determined on a project-by-project basis)

Preliminary List of CAG Responsibilities

This section presents a preliminary list of CAG responsibilities. The final set of responsibilities for this group will be determined through the co-definition process.

- Define the types, or levels, or engagement that should be required for each project or project type, including in-person conversations
- Define project details, aesthetic preferences
- Identify implementation challenges and unique stakeholders as applicable for specific projects
- Develop creative and context-specific transition solutions to support neighborhood residents, business owners, and employees during project construction and after completion

Post updates and solicit input online

The City will gather additional input on project implementation via online tools, and will continue to share *En Movimiento* materials, including updated plans, schedules, and meeting information at [enmovimiento.org](#). Online engagement and other tools will be assessed by the CAG, and at minimum must meet baseline equity criteria for engaging in and with vulnerable communities:

- Community penetration: The level of traction and reach it will have
- Accessibility: ADA, language, and cultural relevancy
- User-friendliness/User-legibility: How universally understood the tool is without a lot of explanation

Develop a resolution or ordinance to formalize the City’s commitment to meeting transportation equity goals in the East San José neighborhood

This resolution would be co-defined by the City and the CAG. Once adopted, the City would be accountable to the City Council to commit to a community engagement process that works towards transportation equity goals in East San José. This resolution could set a precedent for a future citywide resolution or ordinance that would formalize the City’s commitment to meeting transportation equity goals citywide. In Seattle, the Council has supported a similar resolution that affirms the City’s commitment to the Seattle Department of Transportation’s Transportation Equity Program; this program brings an equity focus and specific framework to the City’s planning process.

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b. Guide to Implementation

Implementation of the ESJ MTIP is an iterative process; projects and programs are scored and prioritized based on the best information available at the time. As new information becomes available, the programs will be rescored and reprioritized. This includes the project moving forward to phases such as preliminary engineering, final design, and right-of-way acquisition.

The next section discusses the next steps towards the implementation of the projects, which include requirements for institutional and financial considerations.

Table 9 - Project Implementation Guide

Project	Project	Key Implementation Considerations
1	E. Santa Clara Street	Likely candidate for pavement maintenance program, with subsequent work through Capital improvement Plan (CIP) and in coordination with VTA Requires coordination with adjacent business owners for parking loss Requires coordination with VTA for stop locations and red curb implementation at stops Bike improvements on segment across US-101 being implemented as part of ongoing BetterBikewaysSJ project Enhanced bike connectivity requires additional improvements on 30 th and 31 st Streets
2	St. John BB	Incorporate into BetterBikewaysSJ program
3	San Fernando BB	Incorporate into BetterBikewaysSJ program
4	10 th & 11 th	Determine opportunity for two-way street conversion Conversion of existing temporary treatments to permanent
5A	21st Street BB	Determine feasibility of advisory bike lanes solution Incorporate into BetterBikewaysSJ program
5B	28th Street BB; Bonita Ave BB	Determine implications from traffic diverters Incorporate into BetterBikewaysSJ program
6	McLaughlin MS	Coordinate with nearby property owners on feasibility of parking removal
7	21 st St. Major Streets	None
8	Julian BART Connection	Need to confirm feasibility of parking removal Coordinate with school and further develop concepts for modifications to 24 th Street intersection
9	St. John/St. James BART Connection	Need to coordinate with Coyote Creek crossing project Need to coordinate with VTA BART project on opportunities for traffic calming on St. James Street Need to coordinate with PRNS on bike connections through Roosevelt Park
10	San Antonio BB	Develop concept to minimize parking impacts to residents

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		Identify traffic calming on perpendicular streets along with any diversion techniques Assess feasibility of closing US-101 overcrossing to motor vehicles
11	E. William BB	Incorporate into BetterBikewaysSJ program
12	Coyote Creek OSTC	Coordinate with PRNS to determine near-term and long-term connections to trail network
13	Five Wounds OSTC	Coordinate with PRNS to integrate with buildout of the Five Wounds Trail
14	101 Overcrossings	Coordination with Caltrans on interchange modifications Further analysis needed on opportunity to improve San Antonio crossing. Explore opportunity for closure along with improved bike/ped connections and traffic calming on north-south streets
15	31 st BB	Includes completion of missing sidewalk sections Incorporate into BetterBikewaysSJ program
16	33 rd BB	Incorporate into BetterBikewaysSJ program
17	San Antonio MS	Coordination with Caltrans for I-680 interchange modification Further coordination needed on any parking loss
18	Shortridge BB	Incorporate into BetterBikewaysSJ program
19	King Road TP	Coordinate with VTA on opportunities and technology needed for queue jumps. Coordinate with VTA on refinements to bus stop locations Determine feasibility of raised Class IV bike facility Coordinate with planned corridor study on King Road
20	Lower Silver Creek OSTC	Determine if something more significant than RRFB needed at San Antonio crossing Further evaluate feasibility of sidewalk on west side of King
21	Alum Rock MS	Coordinate with VTA on modifications that would affect transit service
22	Jackson TP	Coordinate with VTA on opportunities for queue jumps. May require additional ROW in some locations Determine feasibility of raised Class IV bike facility
23	Sunset BB	Incorporate into BetterBikewaysSJ program
24	Jose Figueres BB	Incorporate into BetterBikewaysSJ program
25	Kammerer BB	Incorporate into BetterBikewaysSJ program

c. Informing On-going Work

It is recommended that the agencies or entities responsible for on-going projects and programs be notified to include the projects identified as part of this ESJ MTIP project. Funding for design and implementation of transportation improvements can come from grants, the City's Capital Improvement Program, new development, the Urban Village Implementation (UVI) Amenity Program, Special Finance Districts, and regional, state, and federal funds.

i. *Traffic Capital Improvement Program*

Each April, the City Manager's Office releases the Proposed Capital Budget and Five-Year Capital Improvement Program (CIP). The Proposed Capital Budget and CIP documents the capital projects

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expected to be funded over the next five years, including project descriptions, funding, and timelines. The Proposed Capital Budget is discussed through a series of budget study sessions with the City Council, community meetings in each district, and public hearings. With feedback from the City Council, the Mayor brings forward a June Budget Message each year that recommends changes to the Proposed Budget. The City Council adopts the budget each June with approved changes that were brought forward in the Mayor's Message.

The Traffic CIP is part of the CIP. The mission of the Traffic Capital Improvement Program is to implement and manage a multimodal transportation system that is safe, efficient, environmentally sensitive, and maintained in the best condition possible consistent with the goals and policies of the Envision San José 2040 General Plan. The 2019-2023 Adopted Traffic CIP provides \$628.9M of funding.

The Director of Transportation is responsible for determining which projects are included in the Traffic CIP. DOT staff that seek to include a project in Traffic CIP should work through their chain-of-command for consideration by the Director of Transportation. The ESJ MTIP projects identified are recommended to follow this process to have consideration in the CIP.

ii. Pavement Maintenance

Pavement maintenance is the flagship program of San José's Traffic Capital Improvement Program. In the 2019-2023 Adopted CIP \$314.2M (50%) is allocated to pavement maintenance. This heavy investment in pavement maintenance aligns well with the findings of this document. As can be seen in the prioritized list of projects above, striping projects tend to offer the highest benefit-cost ratios.

Striping projects can also put long-range streetscape concepts in place that can then be built out as new opportunities arise (e.g., by new development). Conversely, implementing transportation improvements that are inconsistent with the streetscape concept and striping of a corridor creates problems. For this reason, this document places a high priority on developing 100% striping plans evolved from the 10% streetscape design drawings, and then implementing these striping plans via the pavement maintenance program in the CIP.

Although future pavement maintenance is tentative and subject to change, the ESJ MTIP project corridors that are scheduled for pavement maintenance should be identified.

iii. New Development

There are opportunities to make transportation improvements requirements of new development by including them as part of development permits. Transportation improvements included in new development should be consistent with the process and criteria in the San José's Transportation Analysis Handbook and designs in the Complete Streets Design Standards and Guidelines. Projects and programs to be included in new development permits should be coordinated with the Development Review group of the DOT.

iv. Special Financing Districts

There are many types of Special Financing Districts (SFDs) that can be used to fund maintenance and capital enhancements in a defined area. SFD funds can be used not only for these purposes, but also for marketing, small business assistance, maintenance, supplemental security services, public art, and special events. Currently, if an SFD is to be explored, Community Facilities Districts (CFDs) should be explored first. The City's special districts group in the Department of Public Works facilitates the

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formation and ongoing administration of these districts; this group should coordinate with as a first step in any effort to establish a CFD.

v. Regional, State, and Federal Funds

Projects and programs may also be implemented using regional, state, and federal funds. A summary of these is provided in **Table 10**. This document recommends influencing programming of these funds to include the highest priority projects identified in this document that require funds beyond what is available to the City and are of regional, state, and/or national significance.

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Table 10 - Transportation Programming Documents

Plan	Agency	Area	About
STIP	CTC	State	Five-year investment plan for state transportation money. Updated every two years. STIP allocations go to projects included in RTIPs (75%) and the ITIP (25%).
ITIP	CTC	State	The ITIP is a five-year expenditure program consisting of transportation capital improvement projects for: (1) highways in rural areas that are part of the state-designated interregional roadway system; and (2) the state's intercity rail system.
FSTIP	CTC	State	A statewide 4-year programming document required by federal law and prepared by Caltrans. It is a compilation of the 18 MPO FTIPs and projects from the rural portions of the state that are not within the area of an MPO.
RTIP	MTC	Region	The RTIP is a financially constrained list of transportation capital improvement projects designed to improve mobility and air quality within a region.
FTIP	MTC	Region	Federal law requires all transportation projects that receive federal funds, require a federal action, or are regionally significant be incorporated in an FTIP prepared by an MPO.
CIP	VTA	County	The CIP is a seven-year program of projects. It may include projects that will increase the capacity of the multimodal transportation system. It also may include safety, maintenance, and rehabilitation projects that do not enhance system capacity but are necessary to preserve the investment in existing facilities. Before a project can be included in the CIP, it must be listed in the Countywide Transportation Plan. The CIP is updated every two years as part of the CMP.
CIP	City of San José	City	CSJ's Traffic Capital Improvement Program is a four-year program that is part of the Transportation and Aviation Services City Service Area (CSA) which funds citywide multimodal transportation improvements that are consistent with the goals and policies of the Envision San José 2040 General Plan. The 2018-2022 Adopted CIP provides funding of \$621.6 million.

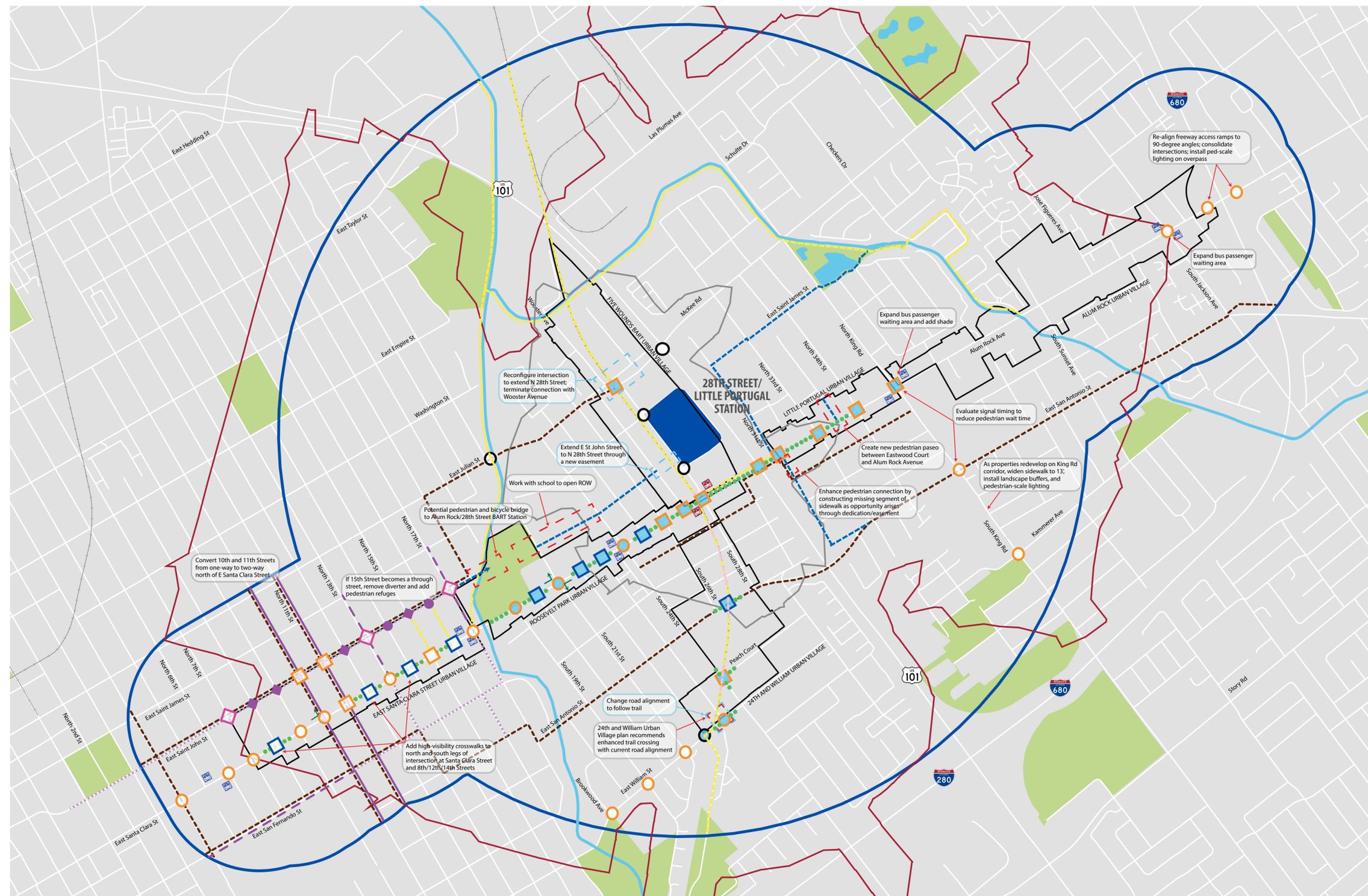
d. Implementing Other Priority Improvements

As priorities change or factors such as impacts of other projects, unexpected circumstances, or funding arise, the project implementation timeframe is subject to change as a result. Determining the implementation schedule is based on specific needs and the criterion considered in the prioritization process, funding availability, and interdependency with current or preceding projects. The schedule should categorize projects based on short-term, medium-term, and long-term goals.

APPENDIX

A. Previous Planning Efforts - Recommendations Summary

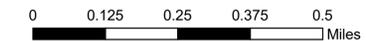
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<p>Intersection Recommendations</p> <ul style="list-style-type: none"> ■ New Refuge(s), Bulb-Outs, and High Visibility Pedestrian Crossing ■ New Refuge(s), Bulb-Outs, and New RRFB Pedestrian Signal ○ New Bulb-Outs/Reduce Curb Radii and High Visibility Pedestrian Crossing ◇ New Refuges ○ High-Visibility Pedestrian Crossing ■ Outlined text or shaded recommendations are part of Five Wounds BART Station Area Community Concept Plan 	<p>Bicycle Recommendations</p> <ul style="list-style-type: none"> — Buffered Bike Lane — Bike Lane - - - Sharrow (bikes share road) ● Traffic Circle ◆ Vehicular Traffic Divertor 	<p>Transit Recommendations</p> <ul style="list-style-type: none"> ■ Existing VTA Rapid Bus Stop ■ Proposed VTA Rapid Bus Stop 	<p>Other Recommendations</p> <ul style="list-style-type: none"> — Enhanced Trail Crossing — Pedestrian and Bike Trails — Neighborhood Greenway ● New Median ↑ Left Turn Lane Added — Better Bikeways 	<p>Boundaries</p> <ul style="list-style-type: none"> ○ 0.5 Mile Walkshed (10 min walk) ○ 1.5 Mile Bikedshed (10 min bike) ○ East San José MTIP Boundary
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Incorporated Plans

- 24th and William Urban Village Plan (November 2013)
- San José BART Station Access Planning Final Report (April 2016)
- San José BART Station Access Planning Final Report (April 2016)
- East Santa Clara Street Urban Village Plan (June 2017)
- BART Station Area Community Concept Plan (September 2010)
- Five Wounds Urban Village Plan (November 2013)
- Little Portugal Urban Village Plan (November 2013)
- Roosevelt Park Urban Village Plan (November 2013)
- Five Wounds/Brookwood Terrace Neighborhood Improvement Plan (August 2002)
- VTA Pedestrian Access to Transit Plan (Fall 2017)



Revised: April 2019
 Note: All recommendations are conceptual and should be further studied to ensure they do not interfere with the operation of the Bus Rapid Transit system and fit within ROW constraints.

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B. MTIP Goals, Metrics, Project Scorecard, and Detailed Cost Estimates

MTIP Goals and Scoring Guidelines

MTIP Goal: Community Serving

This goal aims to promote community-supported transportation improvements that meet the needs of all people who walk, bike, and take transit in the neighborhood.

Metric 1. Does the project address community identified mobility concerns/desires?

Scoring Guidelines:

A project addresses community identified mobility concerns/desires if:

The project includes one or more of the following elements that were specifically requested by the community (2 points):

1. Separated bikeways,
2. Enhanced lighting, signage, and landscaping along a pedestrian route,
3. Enhanced bus stops (shelters, lighting, real-time info)

The project addresses one or more of the top community concerns (1 point):

1. Traffic calming and high vehicle speeds
2. Transit speed, reliability and frequency
3. Long distance or low-comfort at pedestrian crossings
4. Pedestrian-scale light and visibility (personal security)
5. Gaps in bicycle network or low-comfort environment for riding bikes

The project is located in community identified problem area = 2 points

1. Focus on full East Santa Clara Street/Alum Rock Avenue corridor
2. Focus on 24th Street, East San Antonio, King Road
3. Focus on East Julian Street near 24th Street, McKee Road at King Road

Metric 2. Does the project prioritize the movement of people over movement of vehicles?

Scoring Guidelines:

A project prioritizes the movement of people over the movement of vehicles if the project includes one or more of the following (choose the highest scoring improvement):

1. Transit Only lane = 5 points
2. Protected bike lane = 5 points
3. Convert auto/parking lane to transit/bike/ped = 5 points
4. Traffic diversion = 5 points
5. Combination Class II & Class IV bikeway (on same route) = 4 points
6. Traffic calming = 3 points (traffic circles, chicanes, speed humps etc.)
7. New class II bikeway = 1 points
8. Intersection crossing marks and green conflict zone striping = 1 point

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9. Wayfinding signage = 1 point
10. Enhanced bus stop = 1 point
11. Raised median = 1 point

MTIP Goal: Equity

This goal aims to address the needs of people who have not been served equitably in the past, including children, the elderly, People of Color, the disabled, and low income households.

Metric 1. Does the project improve access to schools?

Scoring Guidelines:

A project improves access to schools if:

1. There is a school located on the project corridor (5 points)
2. There is a school within 500' of the project corridor (3 points)

Metric 2. Does the project improve access to senior and/or community centers?

Scoring Guidelines:

A project improves access to senior and/or community centers if:

1. There is a senior/community center on the project corridor (5 points)
2. There is a senior/community center within 500' of the project corridor (3 points)

Metric 3. Does the project expand connections to jobs for local residents, especially low-income households?

Scoring Guidelines:

A project improves connections to jobs for local residents if:

1. Project connects people walking, biking, and taking transit to downtown (5 points)
2. Project crosses a barrier (i.e. 101 or Coyote Creek) for people walking, biking, and taking transit to downtown (5 points)
3. Project connects to other job centers (i.e. Berryessa, Story/King area, Regional Medical Center) for people walking, biking, and taking transit (1 point)

MTIP Goal: Local Economy

This goal aims to support local retail and provide connections to the needs of daily life for all residents by providing an inviting setting for people who walk, bike, and take transit on retail corridors. Retail corridors within the ESJ MTIP area include E. Santa Clara/Alum Rock, Julian St/McKee Rd, King Rd, Jackson Ave).

Metric 1. Does the project increase the sidewalk width on a retail corridor?

Scoring guidelines:

1. Project widen sidewalks on a retail corridor (5 points)
2. Project includes bulbouts or curb extensions on a retail corridor (3 points)

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Metric 2: Does the project provide trees on a retail corridor?

Scoring guidelines:

1. Project provides trees on a retail corridor (5 points)

Metric 3: Does the project include pedestrian lighting on a retail corridor?

Scoring guidelines:

1. Project adds pedestrian-scale lighting at regular intervals throughout retail corridor (5 points)

Metric 4: Does the project supports and sustains local businesses?

Scoring guidelines:

1. Project is on a retail corridor (i.e. ESC/Alum Rock, Julian St/McKee Rd, King Rd, Jackson Ave) (5 points)
2. Project corridor connects to a retail corridor (3 points)

MTIP Goal: Public Life

This goal aims to promote street design that creates a network of vibrant public spaces that foster a sense of community.

Metric 1: Does the project improve connections to parks, local cultural institutions, and community centers?*

*For purposes of this prioritization tool, cultural institutions are defined as “religious institutions, libraries, and historic landmarks.”

Scoring guidelines:

1. Project provides direct access to more than one cultural institution, park, or community center (5 points)
2. Project provides direct access to one cultural institution, park, or community center (3 points)
3. The project Improves a connection that provides direct access to a cultural institution, park, or community center (1 point)

Metric 2: Does the project incorporate landscape design and lighting to create more vibrant public spaces?

Scoring guidelines:

1. The project provides landscaping/urban design, lighting, and/or other public space elements (5 points)

MTIP Goal: Safety and Health

This goal aims to promote projects that will eliminate traffic-related crashes, particularly near schools, transit stops, retail, and community centers.

Metric 1: Does the project improve pedestrian and bicycle safety at a location with many collisions?

Scoring guidelines:

1. The project is on a Vision Zero Priority Safety Corridor (5 points)

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2. The project enhances an alternative route to Priority Safety Corridor (3 points)
3. The project enhances safety on street that connects to PSC (1 point)

Metric 2: Does the project reduce vehicle speeds?

Scoring guidelines:

1. The project includes traffic circles, raised intersections, raised crosswalks, chicanes, bulb-outs, or curb extensions (5 points)
2. The project includes class IV bikeways (3 points)
3. The project includes speed humps (3 points)
4. The project eliminates turn lanes (3 points)
5. The project adds a center Median (1 point)

Metric 3: Does the project close a gap in the trail, bike, or sidewalk network?

Scoring guidelines:

1. The project connects two existing bikeways, sidewalks, or trail segments (5 points)
2. The project enhances existing crossing of a barrier (freeway, creek) (3 points)

MTIP Goal: Climate

The aim of this goal is to reduce emissions, meet the City's Climate Smart San José goals, and support a reduction in VMT per capita.

Metric 1: Does the project provide facilities for people who walk and bike so that there is an alternative to driving to support mode shift?

Scoring guidelines:

1. The project includes a class IV bikeway (5 points)
2. The project includes a new sidewalk (5 points)
3. The project includes a new on-street trail connection (4 points)
4. The project is bike boulevard with traffic diversion (4 points)
5. The project includes one or more high visibility crossings with APS, RRFBs, or leading intervals (3 points)
6. The project includes one or more high visibility crossing (unspecified) (2 points)
7. The project includes bulb-outs and/or curb extensions (1 point)

Metric 2: Improves access to BRT and/or the future BART station

Scoring guidelines:

1. The project creates a new all ages and abilities bikeway or pedestrian route to a BART or BRT station (5 points)
2. The project enhances an existing Class II bikeway or includes an intersection spot improvement(s) pedestrian on a route to a BART or BRT station (3 points)

MTIP Goal: Operations and Maintenance Cost Effectiveness

This goal aims to promote projects that provide a high public return on investment and low operations and maintenance costs.

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Metric 1: Invest capital in projects that minimize operating costs

Scoring guidelines:

1. The project includes a traffic circle that replaces a signalized intersection (5 points)

Metric 2: Invest capital in projects that minimize maintenance costs

Scoring guidelines:

1. The bikeways included in the project are limited to class II (5 points)
2. The project is a bike boulevard (3 points)
3. The project includes class IV bikeways (3 points)

MTIP Goal: Deliverability

This goal aims to streamline the street improvement implementation process.

Metric 1: Project permitting and approvals process will not require excessive time and effort

Scoring guidelines:

1. Does the project require right of way acquisition or an easement? (no, 5 points)

Metric 2: Minimize construction impacts

Scoring guidelines:

1. Can the project be completed with paint and plastic? (5 points)
2. Does the project require a temporary travel route or parking closure? (no, 5 points)
3. Does the project require signal modifications? (no, 3 points)

Metric 3: A Funding Partnership Exists

Scoring guidelines:

1. Is the project included in VTP 2040? (5 points)
2. Does the project have a bike/ped/transit nexus (5 points)
3. Is the project w/in an Urban Village? (5 points)
4. Is the project a trail project? (3 points)

Metric 4: An opportunity to coordinate with the paving program exists

Scoring guidelines:

1. Can the project be completed with paint and plastic? (5 points)

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Evaluative Metrics & Weighting

Priority	Metrics
Equity	Improves access to schools
	Improves access to senior and community centers
	Expands connections to jobs for nearby local residents, especially for low-income households
Preservation and Protection	Improves access and mobility with locally serving projects that support affordability
Local Economy	Increases sidewalk width on retail streets
	Includes trees on retail streets
	Includes pedestrian lighting on retail streets
	Supports and sustains local businesses
Community Serving	There is community support
	Prioritizes movement of people over movement of vehicles
Public Life	Improves connections to parks, local cultural centers, and community centers
	Incorporates landscape design and lighting to create more vibrant public spaces
Safety and Health	Improves pedestrian and bicycle safety at a location with many collisions
	Improves street design to prevent vehicle collisions
	Reduces vehicle speeds
	Closes a gap in the trail, bike, or sidewalk network
Climate	Provides connections for people who walk and bike so that there is an alternative to driving
	Improves access to the BRT and/or future BART station
Cost effectiveness	Requires lower operating and maintenance costs
Deliverability	Project permitting and approvals process will not require excessive time and effort
	Generates minimal construction impacts
	A funding partnership opportunity exists
	An opportunity to coordinate with the paving program exists

Weighting

At Community Engagement #2 the project team shared the above metrics to evaluate and compare the recommended street improvements. Community members were asked to share how important, on a scale of 1 to 5, each metric was to improving walking, biking, and transit in their neighborhood.

Most community members scored the majority of the metrics as important or very important, with very few votes scoring a metric as unimportant. Community members expressed the most support for metrics related to priorities based on community input and City policies, such as Safety and Health, Public Life, Equity, and Local Economy. In particular, the following metrics received the most support from community members (highest count receiving a score of either 4, important, or 5, very important):

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- Improves pedestrian and bicycle safety at a location with many collisions (Safety and Health)
- Improves connections to parks, local cultural centers, and community centers (Public Life)
- Expands connections to jobs for local residents, especially low-income households (Equity)
- Closes a gap in the trail, bike, or sidewalk network (Safety and Health)
- Includes pedestrian lighting on retail streets (Local Economy)

Community support for each metrics is detailed in the following chart formed the basis for the weighting system within the prioritization tool.

Priority	Metric	How important is this metric to you? (1 = not important, 5 = very important)					Average Score
		1	2	3	4	5	
Equity	Improves access to schools	6	4	3	7	21	3.8
	Improves access to senior and community centers	4	2	9	10	14	3.7
	Expands connections to jobs for local residents, especially for low-income households	0	1	2	10	28	4.6
Preservation and Protection	Improves access and mobility with locally serving projects that support affordability	1	1	9	7	19	4.1
Economy	Increases sidewalk width on retail streets	0	2	8	12	15	4.1
	Includes trees on retail streets	1	2	6	9	20	4.2
	Includes pedestrian lighting on retail streets	1	1	6	11	24	4.3
	Supports and sustains local businesses	2	1	4	8	26	4.3
Community Serving	There is community support	1	1	8	9	14	4.0
	Prioritizes movement of people over movement of vehicles	0	2	6	9	24	4.3
Public Life	Improves connections to parks, local cultural centers, and community centers	1	1	2	14	25	4.4
	There is an opportunity to incorporate local artists into the project	1	3	12	9	16	3.9
	Incorporates landscape design and lighting to create more vibrant public spaces	0	1	3	13	20	4.4
Safety and Health	Improves pedestrian and bicycle safety at a location with many collisions	1	0	3	5	36	4.7
	Improves street design to prevent vehicle collisions	0	2	4	9	25	4.4
	Reduces vehicle speeds	2	2	7	6	23	4.2
	Closes a gap in the trail, bike, or sidewalk network	1	2	1	10	27	4.5
Climate	Provides connections for people who walk and bike so that there is an alternative to driving	0	2	4	9	26	4.4
	Improves access to the BRT and/or future BART station	1	1	4	5	29	4.5
Cost Effectiveness	Requires lower operating and maintenance costs	4	3	9	9	10	3.5
Deliverability	Project permitting and approvals process will not require excessive time and effort	0	6	4	13	15	4.0
	Generates minimal construction impacts	3	6	13	8	7	3.3
	A funding partnership opportunity exists	1	4	12	10	9	3.6
	An opportunity to coordinate with the paving program exists	0	4	9	12	10	3.8

During the open house, most community members scored the majority of the metrics as important or very important, with very few votes scoring a metric as unimportant. In the survey responses, the feedback was a bit more varied, though still most metrics were scored as important.

Community members expressed the most support for metrics related to priorities based on community input and City policies, such as Safety and Health, Public Life, Equity, and Local Economy. In particular, the following metrics received the most support from community members (highest count receiving a score of either 4, important, or 5, very important):

EAST SAN JOSÉ • MTIP

- Improves pedestrian and bicycle safety at a location with many collisions (Safety and Health)
- Improves connections to parks, local cultural centers, and community centers (Public Life)
- Expands connections to jobs for local residents, especially low-income households (Equity)
- Closes a gap in the trail, bike, or sidewalk network (Safety and Health)
- Includes pedestrian lighting on retail streets (Local Economy)

Priority	Metric	How important is this metric to you? (1 = not important, 5 = very important)					Average Score
		1	2	3	4	5	
Equity	Improves access to schools	6	4	3	7	21	3.8
	Improves access to senior and community centers	4	2	9	10	14	3.7
	Expands connections to jobs for local residents, especially for low-income households	0	1	2	10	28	4.6
Preservation and Protection	Improves access and mobility with locally serving projects that support affordability	1	1	9	7	19	4.1
Economy	Increases sidewalk width on retail streets	0	2	8	12	15	4.1
	Includes trees on retail streets	1	2	6	9	20	4.2
	Includes pedestrian lighting on retail streets	1	1	6	11	24	4.3
	Supports and sustains local businesses	2	1	4	8	26	4.3
Community Serving	There is community support	1	1	8	9	14	4.0
	Prioritizes movement of people over movement of vehicles	0	2	6	9	24	4.3
Public Life	Improves connections to parks, local cultural centers, and community centers	1	1	2	14	25	4.4
	There is an opportunity to incorporate local artists into the project	1	3	12	9	16	3.9
	Incorporates landscape design and lighting to create more vibrant public spaces	0	1	3	13	20	4.4
Safety and Health	Improves pedestrian and bicycle safety at a location with many collisions	1	0	3	5	36	4.7
	Improves street design to prevent vehicle collisions	0	2	4	9	25	4.4
	Reduces vehicle speeds	2	2	7	6	23	4.2
	Closes a gap in the trail, bike, or sidewalk network	1	2	1	10	27	4.5
Climate	Provides connections for people who walk and bike so that there is an alternative to driving	0	2	4	9	26	4.4
	Improves access to the BRT and/or future BART station	1	1	4	5	29	4.5
Cost Effectiveness	Requires lower operating and maintenance costs	4	3	9	9	10	3.5
Deliverability	Project permitting and approvals process will not require excessive time and effort	0	6	4	13	15	4.0
	Generates minimal construction impacts	3	6	13	8	7	3.3
	A funding partnership opportunity exists	1	4	12	10	9	3.6
	An opportunity to coordinate with the paving program exists	0	4	9	12	10	3.8

Project:

ESC/Alum Rock (w/ PBL)

Project Description: Public service lanes (e.g., for emergency vehicles, buses, and other government vehicles only)
 Protected bike lanes
 New/relocated/improved bus stops
 Pedestrian countdown timers
 Accessible pedestrian signals (APS)
 Leading pedestrian intervals at ped hot spots
 Improved crossings (esp. to BART station)
 Street trees and landscaping
 Pedestrian scale lighting
 Eliminate WB left-turn lane to 28th St.

Project Category: Transit Priority
 Phase: 1 - Quickbuild PBL Other
 Length (ft.): #N/A 6,019.20 #N/A
 Length (mi.): #N/A 1.14 #N/A
 Avg. Ctc (ft.): #N/A
 Area (sqft): #N/A
Total Cost: #N/A

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop	11.00	\$ 400,950.00	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop	4.00	\$ 300,000.00	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk		\$ -	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway	1.14	\$ 45,600.00	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway		\$ -		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner	60.00	\$ 210,000.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00			\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	#N/A	#N/A	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)				\$ -		
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				#N/A		

Project:

ESC/Alum Rock (w/o PBL)

Project Description: Public service lanes (e.g., for emergency vehicles, buses, and other government vehicles only)
 Protected bike lanes
 New/relocated/improved bus stops
 Pedestrian countdown timers
 Accessible pedestrian signals (APS)
 Leading pedestrian intervals at ped hot spots
 Improved crossings (esp. to BART station)
 Street trees and landscaping
 Pedestrian scale lighting
 Eliminate WB left-turn late to 28th St.

Project Category: Transit Priority
 Phase: 1 - Quickbuild
 Length (ft.): 10,773.34
 Length (mi.): 2.04
 Avg. Ctc (ft.): 65.29
 Area (sqft): 703,409.22
Total Cost: \$ 1,704,368.06

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway	237,013	\$ 237,013.44	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop	2	\$ 100,000.00	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop	11	\$ 400,950.00	ATP grant app	
Bus stop (permanent boarding island)	\$ 150,000.00	per stop		\$ -	ATP grant app	worked backwards from estimations on San Fernando
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop	2	\$ 120,000.00	SRVF UV Volar	
Bus stop (relocation)				\$ -		

Bus stop (temp. boarding island)	\$ 75,000.00	per stop	3	\$ 225,000.00	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	36	\$ 108,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	Includes labor, material, striping, and drainage.
Curb Ramp	\$ 7,500.00	per curb ramp	8	\$ 60,000.00	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulboute - bollards)	\$ 3,500.00	per corner	5	\$ 17,500.00		
Intersection (curb extension/bulboute - concrete)	\$ 25,000.00			\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	703,409	\$ 351,704.61	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	2	\$ 16,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	each	31	\$ 68,200.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 1,704,368.06		

Project:

ESC/Alum Rock (w/ PBL)

Project Description:	Public service lanes (e.g., for emergency vehicles, buses, and other government vehicles only)		
Project Category:	Transit Priority		
Phase:	2 - Infra	PBL	Other
Length (ft.):	10,773.34	6,019.20	4,754.14
Length (mi.):	2.04	1.14	0.90
Avg. Ctc (ft.):	65.29		
Area (sqft):	703,409.22		
Total Cost:	\$ 3,440,894.61		

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop	11.00	\$ 400,950.00	ATP grant app	
Bus stop (permanent boarding island)	\$ 150,000.00	per stop	4.00	\$ 600,000.00		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop	-	\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk		\$ -	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway	0.57	\$ 22,800.00	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway	1.14	\$ 565,440.00		
Intersection (curb extension/bulboute - bollards)	\$ 3,500.00	per bulboute		\$ -		
Intersection (curb extension/bulboute - concrete)	\$ 25,000.00	per bulboute	60.00	\$ 1,500,000.00	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	703,409.22	\$ 351,704.61	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)				\$ -		
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 3,440,894.61		

Project:

ESC/Alum Rock (w/o PBL)

Project Description:	Public service lanes (e.g., for emergency vehicles, buses, and other government vehicles only)		
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Project Category:	Transit Priority		
Phase:	2 - Infra	PBL	Other
Length (ft.):	10,773.34	6,019.20	4,754.14
Length (mi.):	2.04	1.14	0.90
Avg. Ctc (ft.):	65.29		
Area (sqft):	703,409.22		
Total Cost:	\$ 2,036,868.06		

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway	237,013	\$ 237,013.44	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop	2	\$ 100,000.00	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop	11	\$ 400,950.00	ATP grant app	
Bus stop (permanent boarding island)	\$ 150,000.00	per stop	3	\$ 450,000.00		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop	2	\$ 120,000.00	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop	-	\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	36	\$ 108,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp	8	\$ 60,000.00	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 4,000.00	per planter		\$ -		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per bulbout		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00	per bulbout	5	\$ 125,000.00	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	703,409.22	\$ 351,704.61	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	2	\$ 16,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	each	31	\$ 68,200.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 2,036,868.06		

Project: E. St. John

Project Description: High Visibility Pedestrian Crossings, ADA compliant elements (ramps, push buttons, etc.), pedestrian countdown timers and Accessible Pedestrian Signals (APS) at signalized intersections
 Bulbouts on all approaches
 New crossing at 15th Street using RRFB or traffic circle & appropriate bike boulevard markings
 Bike Boulevard designation for corridor extent with signage and markings
 Traffic diverters/traffic circles where all-way stops are currently located (5th-9th, 13th, 14th, 17th)

Project Category:	Bike Boulevard	
Phase:	1 - Quickbuild	
Length (ft.):	5,072.9	2,217.60
Length (mi.):	0.9608	0.42
Avg. Ctc (ft.):	43.6	43.60
Area (sqft):	221,009.69	96,687.36
Total Cost:	\$ 170,443.68	

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSI MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 67.50	sqft		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	8	\$ 24,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbouts - bollards)	\$ 3,500.00	per corner		\$ -		
Intersection (curb extension/bulbouts - concrete)	\$ 25,000.00			\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (Neighborhood Traffic Circle)	\$ 10,000.00		6	\$ 60,000.00	NTM	
Intersection (traffic diverter - quick build)	\$ 4,500.00	per intersection	1	\$ 4,500.00	BBSJ	
Intersection (Traffic diverter - permanent)	\$ 30,000.00	per intersection		\$ -	NTM	
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	96,687	\$ 48,343.68	WSI MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	2	\$ 16,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	each	8	\$ 17,600.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 170,443.68		

Project: E. St. John

Project Description: High Visibility Pedestrian Crossings, ADA compliant elements (ramps, push buttons, etc.), pedestrian countdown timers and Accessible Pedestrian Signals (APS) at signalized intersections
 Bulbouts on all approaches
 New crossing at 15th Street using RRFB or traffic circle & appropriate bike boulevard markings
 Bike Boulevard designation for corridor extent with signage and markings
 Traffic diverters/traffic circles where all-way stops are currently located (5th-9th, 13th, 14th, 17th)

Project Category:	Bike Boulevard	
Phase:	2 - Infra	
Length (ft.):	5,072.9	2,217.60
Length (mi.):	0.9608	0.42
Avg. Ctc (ft.):	43.6	43.60
Area (sqft):	221,009.69	96,687.36
Total Cost:	\$ 373,943.68	

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSI MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 67.50	sqft		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	8	\$ 24,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbouts - bollards)	\$ 3,500.00	per corner	8.00	\$ 28,000.00		
Intersection (curb extension/bulbouts - concrete)	\$ 25,000.00			\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)	\$ 10,000.00			\$ -	NTM	
Intersection (neighborhood traffic circle - permanent)	\$ 30,000.00		6	\$ 180,000.00		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per intersection		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Intersection (Traffic diverter - permanent)	\$ 30,000.00	per intersection	2	\$ 60,000.00	NTM	
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	96,687	\$ 48,343.68	WSI MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	2	\$ 16,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	each	8	\$ 17,600.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 373,943.68		

Project: E. San Fernando

Project Description: Eliminate stops and add traffic calming (diverters, traffic circles, speed humps, bulbouts, etc) where feasible
 Signage and markings consistent as Bike Boulevard
 Traffic diverters - 12th to 16th (ESC UV Plan)

Project Category: Bike Boulevard
Phase: 1 - Quickbuild
Length (ft.): 3,387.9
Length (mi.): 0.6416
Avg. Ctc (ft.): 44.0
Area (sqft): 149,217.5
Total Cost: \$ 99,108.77

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk		\$ -	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout)		per extension		\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle - permanent)	\$ 30,000.00			\$ -	NTM	
Intersection (neighborhood traffic circle - quick build)	\$ 10,000.00		2	\$ 20,000.00	NTM	dowled, temporary speed humps with striping and signage
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per intersection	1	\$ 4,500.00	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	149,217.54	\$ 74,608.77	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 99,108.77		

Project: E. San Fernando

Project Description: Eliminate stops and add traffic calming (diverters, traffic circles, speed humps, bulbouts, etc) where feasible
Project Category: Bike Boulevard
Phase: 1 - Quickbuild
Length (ft.): 3,387.9
Length (mi.): 0.6416
Avg. Ctc (ft.): 44.0
Area (sqft): 149,217.5
Total Cost: \$ 227,608.77

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk		\$ -	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout)	\$ 3,500.00	per extension	18.00	\$ 63,000.00	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle - permanent)	\$ 30,000.00		2	\$ 60,000.00	NTM	
Intersection (neighborhood traffic circle - quick build)	\$ 10,000.00			\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00	per intersection	1	\$ 30,000.00		double the curb extension cost
Intersection (traffic diverter - quick build)	\$ 4,500.00	per intersection		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	

New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	149,217.54	\$ 74,608.77	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 227,608.77		

Project: 10th and 11th St

Project Description: High Visibility Pedestrian Crossings at all crosswalks, pedestrian countdown timers, and APS
 Bulbouts into parking lane at intersections
 10th/St. John: Convert temporary bollards treatment to permanent treatment for bike intersection
 10th/San Fernando: Control free EB right-turn movement from San Fernando with traffic signal. Create two-stage bike left-turn box for SB left-turn movements
 11th/San Fernando: Add two-stage turn box for NB left-turn movements
 11th/St. John: Add two-stage turn box for NB left-turn movements
 Convert one-way to two-way street north of E. Santa Clara Street
 Add bus transit islands, may require some parking removal. Provide benches, shelters, wayfinding, and lighting at all bus stops

Maintain one ways but make bike lanes protected where possible?

Project Category: Major Streets
Phase: 2 - Infra
Length (ft.): 26,083.2
Length (mi.): 4.9400
Avg. Ctc (ft.): 53.8
Area (sqft): 1,404,319.5
Total Cost: \$ 3,727,810.94

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk		\$ -	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway		\$ -		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00	per extension		\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00	per intersection		\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft	26,083.20	\$ 3,025,651.20		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00	per signal		\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restripping	\$ 0.50	per sqft	1,404,319.49	\$ 702,159.74	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 3,727,810.94		

Project: 10th and 11th St

Project Description: High Visibility Pedestrian Crossings at all crosswalks, pedestrian countdown timers, and APS
Project Category: Transit Priority
Phase: 1 - Quickbuild
Length (ft.): 26,083.2
Length (mi.): 4.9400
Avg. Ctc (ft.): 53.8
Area (sqft): 1,404,319.5
Total Cost: \$ 2,850,903.74

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop	13.00	\$ 975,000.00	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.

Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk		\$ -	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway		\$ -		
Intersection (curb extension/bulbout - bollards)	\$ 800.00	per corner		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 13,000.00	per extension		\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)	\$ 30,000.00			\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00	per intersection		\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft	78,249.60	\$ 1,173,744.00		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	1,404,319.49	\$ 702,159.74	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 2,850,903.74		

Project: 10th and 11th St

Project Description:	High Visibility Pedestrian Crossings at all crosswalks, pedestrian countdown timers, and APS
Project Category:	Transit Priority
Phase:	2 - Infra
Length (ft.):	26,083.2
Length (mi.):	4.9400
Avg. Ctc (ft.):	53.8
Area (sqft):	1,404,319.5
Total Cost:	\$ 3,727,810.94

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 0.50	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop		\$ -	ATP grant app	
Bus stop (permanent boarding island)	\$ 150,000.00			\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk		\$ -	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway		\$ -		
Intersection (curb extension/bulbout - bollards)	\$ 800.00	per corner		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 13,000.00	per extension		\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00	per intersection		\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft	26,083.20	\$ 3,025,651.20		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	1,404,319.49	\$ 702,159.74	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 3,727,810.94		

Project:

24th St.

Project Description:

Eliminate stops and add traffic calming (diverters, traffic circles, speed humps, bulbouts, etc) where feasible
 Signage and markings consistent as Bike Boulevard
 Alt 1: Move BB to 23rd between William and E. Santa Clara

Project Category:

Bike Boulevard

Phase:

1 - Quickbuild

Length (ft.):

#N/A

Length (mi.):

#N/A

Avg. Ctc (ft.):

#N/A

Area (sqft):

#N/A

Total Cost:

#N/A

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 0.50	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 4,000.00	per crosswalk		\$ -	AHSC QG	
Crosswalk (Raised)	\$ 9,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner	6.00	\$ 21,000.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00			\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	#N/A	#N/A	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				#N/A		

Project:

24th St.

Project Description:

Eliminate stops and add traffic calming (diverters, traffic circles, speed humps, bulbouts, etc) where feasible

Project Category:

Bike Boulevard

Phase:

2 - Infra

Length (ft.):

#N/A

Length (mi.):

#N/A

Avg. Ctc (ft.):

#N/A

Area (sqft):

#N/A

Total Cost:

#N/A

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 0.50	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 4,000.00	per crosswalk		\$ -	AHSC QG	
Crosswalk (Raised)	\$ 9,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	

Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00		6.00	\$ 150,000.00	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	#N/A	#N/A	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				#N/A		

Project: 21st St. BB

Project Description: Eliminate stops and add traffic calming (diverters, traffic circles, speed humps, bulbouts, etc) where feasible
 Signage and markings consistent as Bike Boulevard
 Diverters at ESC & William
 Traffic circle at San Antonio

Project Category: Bike Boulevard
Phase: 1 - quick build
 Length (ft.): 3,273.6
 Length (mi.): 0.6
 Avg. Ctc (ft.): 48.2
 Area (sqft): 157,656.6
Total Cost: \$ 130,628.29

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	4	\$ 12,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner	4	\$ 14,000.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00			\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle - quick build)	\$ 10,000.00			\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per intersection	2	\$ 9,000.00	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	157,657	\$ 78,828.29	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	1	\$ 8,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	each	4	\$ 8,800.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 130,628.29		

Project: 21st St. BB

Project Description: Eliminate stops and add traffic calming (diverters, traffic circles, speed humps, bulbouts, etc) where feasible
Project Category: Bike Boulevard
Phase: 2 - Infra

Length (ft.): 3,273.6
 Length (mi.): 0.6
 Avg. Ctc (ft.): 48.2
 Area (sqft): 157,656.6
Total Cost: \$ 197,628.29

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	4	\$ 12,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.

Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00			\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle - quick build)	\$ 10,000.00			\$ -	NTM	
Intersection (neighborhood traffic circle - permanent)	\$ 30,000.00		1	\$ 30,000.00		
Intersection (traffic diverter - permanent)	\$ 30,000.00		2	\$ 60,000.00		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	157,657	\$ 78,828.29	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LP)	\$ 8,000.00	per intersection	1	\$ 8,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	each	4	\$ 8,800.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 197,628.29		

Project: 28th St

Project Description: Eliminate stops and add traffic calming (diverters, traffic circles, speed humps, bulbouts, etc) where feasible
 Signage and markings consistent as Bike Boulevard
 Traffic circles at Shortridge, San Antonio, Peach Ct, and William
 High vis crossings with bulbouts at ESC, San Fernando, and Whitton

Project Category: Bike Boulevard
Phase: 1 - Quickbuild
 Length (ft.): 2,692.8
 Length (mi.): 0.5100
 Avg. Ctc (ft.): 38.9
 Area (sqft): 104,696.1
Total Cost: \$ 150,348.03

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	12.00	\$ 36,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner	12.00	\$ 42,000.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00			\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle - quick build)	\$ 10,000.00		2.00	\$ 20,000.00	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restripping	\$ 0.50	per sqft	104,696.06	\$ 52,348.03	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00			\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	each		\$ -		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 150,348.03		

Project: 28th St

Project Description: Eliminate stops and add traffic calming (diverters, traffic circles, speed humps, bulbouts, etc) where feasible
Project Category: Bike Boulevard
Phase: 2 - Infra

Length (ft.): 2,692.8
 Length (mi.): 0.5100
 Avg. Ctc (ft.): 38.9
 Area (sqft): 104,696.1
Total Cost: \$ 448,348.03

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	12.00	\$ 36,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	

Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulb out - bollards)	\$ 3,500.00	per corner		\$ -		
Intersection (curb extension/bulb out - concrete)	\$ 25,000.00		12.00	\$ 300,000.00	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle - quickbuild)	\$ 10,000.00			\$ -	NTM	
Intersection (neighborhood traffic circle - permanent)	\$ 30,000.00		2.00	\$ 60,000.00		
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	104,696.06	\$ 52,348.03	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	-	\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	each		\$ -		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 448,348.03		

Project: McLaughlin

Project Description: Provide Class IV bike lane as feasible (consider parking removal), buffered Class II where delineators won't work
 Eliminate right turn lanes at William, Apian Ln, and Melborne Blvd
 High Visibility Pedestrian Crossings, pedestrian countdown timers and Accessible Pedestrian Signals (APS) at signalized intersections
 Bulbouts at all street intersections where feasible

Project Category: Major Streets
Phase: 1 - Quickbuild
 Length (ft.): 4,011.00
 Length (mi.): 0.76
 Avg. Ctc (ft.): 55.68
 Area (sqft): 223,332.48
Total Cost: \$ 499,716.24

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop	1	\$ 50,000.00	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop	1	\$ 36,450.00	ATP grant app	
Bus stop (permanent boarding island)	\$ 150,000.00	per stop		\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop	1	\$ 60,000.00	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop	1	\$ 75,000.00	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	12	\$ 36,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway	0.76	\$ 30,400.00	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner		\$ 63,000.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00			\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft	240	\$ 3,600.00		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	223,332	\$ 111,666.24	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	2	\$ 16,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	8	\$ 17,600.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 499,716.24		

Project: McLaughlin

Project Description: Provide Class IV bike lane as feasible (consider parking removal), buffered Class II where delineators won't work

Project Category: Major Streets
Phase: 1 - Quickbuild
 Length (ft.): 4,011.0
 Length (mi.): 0.7600
 Avg. Ctc (ft.): 55.7
 Area (sqft): 223,332.5
Total Cost: \$ 1,159,236.24

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop	1	\$ 50,000.00	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop	1	\$ 36,450.00	ATP grant app	
Bus stop (permanent boarding island)	\$ 150,000.00	per stop	1	\$ 150,000.00		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop	1	\$ 60,000.00	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	12	\$ 36,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	

Delineators (bollards)	\$ 40,000.00	per mile of bikeway	0.38	\$ 15,200.00	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway	0.38	\$ 188,480.00		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00		18	\$ 450,000.00	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft	240	\$ 27,840.00		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	223,332.48	\$ 111,666.24	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	2	\$ 16,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	8	\$ 17,600.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 1,159,236.24		

Project: 21st St.

Project Description: Narrow travel lanes and provide buffered bike lanes
 Intersection crossing marks and green conflict zone striping
 Wayfinding signage along corridor
 Note: 2 PSE projects on 21st St, cigar islands at Empire and at Jackson

Project Category: Major Streets
Phase: 1 - Quickbuild
Length (ft.): 3,619.3
Length (mi.): 0.6855
Avg. Ctc (ft.): 53.8
Area (sqft): 194,537.0
Total Cost: \$ 97,268.48

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk		\$ -	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00	per extension		\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (quickbuild neighborhood traffic circle)	\$ 10,000.00			\$ -	NTM	
Intersection (permanent neighborhood traffic circle)	\$ 30,000.00			\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	194,536.95	\$ 97,268.48	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 97,268.48		

Project: 21st St.

Project Description: Intersection crossing marks and green conflict zone striping

Project Category: Major Streets
Phase: 2 - Infra
Length (ft.): 3,619.3
Length (mi.): 0.6855
Avg. Ctc (ft.): 53.8
Area (sqft): 194,537.0
Total Cost: \$ 97,268.48

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk		\$ -	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00	per extension		\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (quickbuild neighborhood traffic circle)	\$ 40,000.00			\$ -	NTM	
Intersection (permanent neighborhood traffic circle)	\$ 100,000.00			\$ -	NTM	

Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	194,536.95	\$ 97,268.48	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 97,268.48		

Project: Julian

Project Description: Class II bikeway 19th - 21st (remove parking)
 Class IV bikeway 21st - 101 Overcrossing
 Alt 1: Add right-turn arrow phase eastbound with bike lane to the right, modify curbs to narrow roadway, in the westbound direction create a left turn trap lane and one through lane
 Alt 2: Construct bus boarding island and route bike lane behind bus island
 Provide High Visibility Pedestrian Crossings, ADA compliant elements (ramps, push buttons, etc.), pedestrian countdown timers and Accessible Pedestrian Signals (APS) at signalized intersections
 Install bulbouts on street approaches where feasible
 Implement leading pedestrian intervals at all intersections with bus stops
 If Class IV, install bus boarding islands. If no bike facility, install curb extensions at bus stops
 Include benches, shelters, pedestrian-scale lighting, and provide real-time arrival information at all bus stops
 Modify Julian/McKee/28th intersection, to be developed as part of BART station concepts

Project Category:	Connection to BART		
Phase:	1 - Quickbuild	Class II	Class IV
Length (ft.):	2,909.3	633.60	2,276
Length (mi.):	0.5510	0.12	0.43
Avg. Ctc (ft.):	60.5	41.00	19
Area (sqft):	175,904.69	25,977.60	44,292.70
Total Cost:	\$ 1,639,492.22		

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop	6	\$ 300,000.00	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per pad	6	\$ 218,700.00	ATP grant app	67.50 per sqft. Bus pads measured at 9' x 60' = 36,450 per pad. NACTO: bus pads should be at least 8.5' wide.
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop	6	\$ 360,000.00	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop	6	\$ 450,000.00	BBSI	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	14	\$ 42,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway	0.43	\$ 17,239.88	BBSI AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSI: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway		\$ -		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner	22	\$ 77,000.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00			\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSI	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	175,905	\$ 87,952.34	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	10	\$ 80,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	3	\$ 6,600.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 1,639,492.22		

Project: Julian

Project Description: Class II bikeway 19th - 21st (remove parking)
 Connection to BART
 Phase: 2 - Infra
 Class II Class IV
 Length (ft.): 2,909.3 633.60 2,276
 Length (mi.): 0.5510 0.12 0.43
 Avg. Ctc (ft.): 60.5 41.00 19
 Area (sqft): 175,904.69 25,977.60 44,292.70
Total Cost: \$ 2,660,759.54

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop	6	\$ 300,000.00	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per pad	6	\$ 218,700.00	ATP grant app	67.50 per sqft. Bus pads measured at 9' x 60' = 36,450 per pad. NACTO: bus pads should be at least 8.5' wide.
Bus stop (permanent boarding island)	\$ 150,000.00	per stop	6	\$ 900,000.00		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop	6	\$ 360,000.00	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSI	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	14	\$ 42,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway	0.22	\$ 8,619.94	BBSI AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSI: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway	0.22	\$ 106,887.26		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00	per corner	22	\$ 550,000.00	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSI	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	175,905	\$ 87,952.34	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	10	\$ 80,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	3	\$ 6,600.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 2,660,759.54		

Project:

St. James

Project Description:

Install High Visibility Pedestrian Crossings, ADA compliant elements (ramps, push buttons, etc.), pedestrian countdown timers and Accessible Pedestrian Signals (APS) at signalized intersections
 Create new bike/ped bridge over Coyote Creek and extend through Roosevelt Park and San Jose High School fields providing access to Santa Clara Street
 Create bulbouts on all approaches
 Extend bike/ped connection east of 27th Street to connect to 28th St/Five Wounds Trail
 Install marking and signage and designate as Bike Boulevard

Project Category:

Connection to BART

Phase:

2 - Infra

Length (ft.):

2,352.7

Length (mi.):

0.4456

Avg. Ctc (ft.):

40.2

Area (sqft):

94,579.58

Total Cost:

\$ 5,694,289.79

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge	1	\$ 5,000,000.00	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 67.50	sqft		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 4,000.00	per crosswalk	18	\$ 72,000.00	AHSC QG	
Crosswalk (Raised)	\$ 9,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout)	\$ 25,000.00	per bulbout	23	\$ 575,000.00	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	94,580	\$ 47,289.79	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 5,694,289.79		

Project: St. John

Project Description: Install High Visibility Pedestrian Crossings, ADA compliant elements (ramps, push buttons, etc.), pedestrian countdown timers and Accessible Pedestrian Signals (APS) at signalized intersections
 Create new bike/ped bridge over Coyote Creek and extend through Roosevelt Park and San Jose High School fields providing access to Santa Clara Street
 Create bulbouts on all approaches
 Extend bike/ped connection east of 27th Street to connect to 28th St/Five Wounds Trail
 Install marking and signage and designate as Bike Boulevard

Project Category: Connection to BART
Phase: 2 - Infra
 Length (ft.): 2,986.3
 Length (mi.): 0.5656
 Avg. Ctc (ft.): 39.6
 Area (sqft): 118,355.53
Total Cost: \$ 5,669,177.77

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge	1	\$ 5,000,000.00	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 67.50	sqft		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	20	\$ 60,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00		20	\$ 500,000.00	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle - permanent)	\$ 30,000.00	per intersection		\$ -	NTM	
Intersection (neighborhood traffic circle - quickbuild)	\$ 10,000.00			\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	118,356	\$ 59,177.77	WSJ MTIP (Zahi)	
Off-Street Bike Path (New)	\$ 50.00	per linear foot	1,000	\$ 50,000.00		assumes 14' width; approximate length; unit cost from Kimley-Horn recent estimate
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 5,669,177.77		

Project: E. San Antonio

Project Description: Traffic circles in place of stop signs where feasible
 Enhanced bus stops (lights, trash receptacles, benches, real time arrival)
 Diverters where feasible
 New crossings at two locations between 18th and 23rd using RRFB or traffic circles
 Signage and markings consistent as Bike Boulevard up to Bonita
 Narrowed lanes and widened sidewalk across Coyote Creek
 New crossing at 34th St/Sedona Pl with marked crosswalk and RRFB or traffic circle
 Bulbouts on approaches where feasible
 neighborhood traffic circles at Bonita and San Antonio Ct.

Project Category: Transit Priority
Phase: 1 - Quickbuild
 Length (ft.): 7,560.0 1,523.00
 Length (mi.): 1.4318 0.29
 Avg. Ctc (ft.): 41.9
 Area (sqft): 316,923.3
Total Cost: \$ 337,137.40

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop	-	\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop	-	\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop	-	\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	8	\$ 24,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway	0.58	\$ 23,075.76	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner	8	\$ 28,000.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00			\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle - quickbuild)	\$ 10,000.00		7	\$ 70,000.00	NTM	
Intersection (neighborhood traffic circle - permanent)	\$ 30,000.00			\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per intersection		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	316,923	\$ 158,461.64	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	2	\$ 16,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	each	8	\$ 17,600.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 337,137.40		

Project: E. San Antonio

Project Description: Traffic circles in place of stop signs where feasible
 Enhanced bus stops (lights, trash receptacles, benches, real time arrival)
 Diverters where feasible
 New crossings at two locations between 18th and 23rd using RRFB or traffic circles
 Signage and markings consistent as Bike Boulevard up to Bonita
 Narrowed lanes and widened sidewalk across Coyote Creek
 New crossing at 34th St/Sedona Pl with marked crosswalk and RRFB or traffic circle
 Bulbouts on approaches where feasible
 neighborhood traffic circles at Bonita and San Antonio Ct.

Project Category: Transit Priority
Phase: 2 - Infra Class iv protected bike lane (alt 2)
 Length (ft.): 7,560.0 1,523.00
 Length (mi.): 1.4318 0.29
 Avg. Ctc (ft.): 41.9
 Area (sqft): 316,923.3
Total Cost: \$ 388,461.64

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop	-	\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop	-	\$ -	ATP grant app	
Bus stop (permanent boarding island)	\$ 150,000.00	per stop		\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop	-	\$ -	SRVF UV Volar	

Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop	-	\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	-	\$ -	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk	1	\$ 20,000.00	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway	-	\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway	-	\$ -		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00		-	\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle - quickbuild)	\$ 10,000.00			\$ -	NTM	
Intersection (neighborhood traffic circle - permanent)	\$ 30,000.00		7	\$ 210,000.00	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per intersection		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	316,923	\$ 158,461.64	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	-	\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	each	-	\$ -		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 388,461.64		

Project: E. William

Project Description: Eliminate stops and add traffic calming (diverters, traffic circles, speed humps, bulbouts, etc) where feasible
 Signage and markings consistent as Bike Boulevard
 High Visibility Pedestrian Crossings, ADA compliant elements (ramps, push buttons, etc.), pedestrian countdown timers and Accessible Pedestrian Signals (APS) at signalized intersections
 High quality crosswalk at Brookwood Ave

Project Category: Bike Boulevard
Phase: 1 - Quickbuild
 Length (ft.): 2,224.1
 Length (mi.): 0.4212
 Avg. Ctc (ft.): 44.6
 Area (sqft): 99,129.89
Total Cost: \$ 95,564.94

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 67.50	sqft		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	2	\$ 6,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Chicanes / Speed Hump	\$ 5,000.00	each	2	\$ 10,000.00		
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway	-	\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway		\$ -		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00	per corner		\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)		per corner		\$ -		
Intersection (neighborhood traffic circle - permanent)	\$ 30,000.00	per intersection		\$ -	NTM	
Intersection (neighborhood traffic circle - quick build)	\$ 10,000.00	per intersection	3	\$ 30,000.00	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00	per diverter		\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per diverter		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00	per signal		\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	99,130	\$ 49,564.94	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 95,564.94		

Project: E. William

Project Description: Bulbouts on approaches where feasible

Project Category: Bike Boulevard
Phase: 1 - Quickbuild
 Length (ft.): 2,224.1
 Length (mi.): 0.4212
 Avg. Ctc (ft.): 44.6
 Area (sqft): 99,129.89
Total Cost: \$ 109,564.94

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 67.50	sqft		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	2	\$ 6,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Chicanes / Speed Hump	\$ 5,000.00	each	2	\$ 10,000.00		
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway	-	\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway		\$ -		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner	4	\$ 14,000.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00	per corner		\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)		per corner		\$ -		
Intersection (neighborhood traffic circle - permanent)	\$ 30,000.00	per intersection		\$ -	NTM	
Intersection (neighborhood traffic circle - quick build)	\$ 10,000.00	per intersection	3	\$ 30,000.00	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00	per diverter		\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		

New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	99,130	\$ 49,564.94	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 109,564.94		

Project: Coyote Creek Trail

Project Description: Provide enhanced/raised trail crossing with trail wayfinding across Julian (near 21st). Costs include:
 - RRFB
 - Rased crosswalk
 - Restriping

Project Category: On-Street Trail Crossing
Phase: 2 - Infra
Length (ft.): 447.4
Length (mi.): 0.0847
Avg. Ctc (ft.): 20.0
Area (sqft): 8,947.5
Total Cost: \$ 120,625.00

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 67.50	sqft		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk		\$ -	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk	1	\$ 20,000.00	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout)	\$ 25,000.00		-	\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal	2	\$ 100,000.00	AHSC QG	
Restriping	\$ 0.50	per sqft	1,250	\$ 625.00	WSJ MTIP (Zahi)	Crosswalk only, assumes striping for 50' x 20' crosswalk
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 120,625.00		

Project: Five Wounds Trail

Project Description: Modify Julian/McKee intersection, to be developed as part of BART station concepts
 Provide cross-track across Santa Clara Street and two-stage bike turn box or protected intersection in NW and SW corners. Eliminate SB and EB right-turn on red
 Narrow 24th St at trail crossing by eliminating on-street parking for short stretch. Provide RRFB or PHB crossing of 24th St. Potentially eliminate left-turns to/from Peach Ct
 Narrow 23rd St by eliminating on-street parking and provide widen sidewalk for trail on east side
 Eliminate on-street parking on north side of William St between 22nd and 23rd St and widen sidewalk for trail on north side
 Provide enhanced/raised trail crossing, bulbouts and RRFB/PHB mid-block at future Coyote Creek Trail crossing

Project Category: On-Street Trail Crossing
Phase: 2 - Infra
 Length (ft.): 1,311.2
 Length (mi.): 0.2483
 Avg. Ctc (ft.): 20.0
 Area (sqft): 26,223.75
Total Cost: \$ 636,411.88

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 67.50	sqft		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	13	\$ 39,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk	2	\$ 40,000.00	NTM	
Chicanes / Speed Hump	\$ 5,000.00	each	1	\$ 5,000.00		
Curb Ramp	\$ 7,500.00	per curb ramp	9	\$ 67,500.00	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout)	\$ 25,000.00		13	\$ 325,000.00	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00		1	\$ 30,000.00		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal	2	\$ 100,000.00	AHSC QG	
Restriping	\$ 0.50	per sqft	26,224	\$ 13,111.88	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	1	\$ 8,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	4	\$ 8,800.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 636,411.88		

Project: Julian/McKee

Project Description: Widen sidewalk to create protected shared use path
 Reduced curb radii at on and off ramps
 Enhanced pedestrian crossings
 (don't think quickbuild is a viable option here)

Project Category: US-101 Overcrossing
 Phase: 1 - Quickbuild Class IV Bike Path
 Length (ft.): 687.2 1,369.00
 Length (mi.): 0.1302 0.26
 Avg. Ctc (ft.): 63.1
 Area (sqft): 43,363.48
Total Cost: \$ 84,652.95

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 67.50	sqft		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	3	\$ 9,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway	0.26	\$ 10,371.21	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway		\$ -		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner	6	\$ 21,000.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00			\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restripping	\$ 0.50	per sqft	43,363	\$ 21,681.74	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	2	\$ 16,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	3	\$ 6,600.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 84,652.95		

Project: Julian/McKee

Project Description: Widen sidewalk to create protected shared use path
 Reduced curb radii at on and off ramps
 Enhanced pedestrian crossings
 (don't think quickbuild is a viable option here)

Project Category: US-101 Overcrossing
 Phase: 2 - Infra
 Length (ft.): 687.2
 Length (mi.): 0.1302
 Avg. Ctc (ft.): 63.1
 Area (sqft): 43,363.48
Total Cost: \$ 272,768.86

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 67.50	sqft		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	3	\$ 9,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway	0.13	\$ 5,185.61	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway	0.13	\$ 64,301.52		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00		6	\$ 150,000.00	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		

New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	43,363	\$ 21,681.74	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	2	\$ 16,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	3	\$ 6,600.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 272,768.86		

Project: US-101 Overcrossings - E San Antonio

Project Description: Widen sidewalk to create 10' shared use path between Bonita Ave and E San Antonio Ct
 Reconfigure San Antonio/Bonita Ave and San Antonio St/San Antonio Ct intersections with reduced curb radii (bollard for temp condition)
 Restripe E San Antonio St between Bonita Ave and E San Antonio Ct

Project Category: US-101 Over Crossing
Phase: 1 - Quickbuild
Length (ft.): 1,300.0
Length (mi.): 0.2462
Avg. Ctc (ft.): 45.0
Area (sqft): 58,500.0
Total Cost: \$ 450,250.00

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 0.50	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 67.50	sqft		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 4,000.00	per crosswalk	6.00	\$ 24,000.00	AHSC QG	
Crosswalk (Raised)	\$ 9,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner	9.00	\$ 31,500.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00	per extension		\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	58,500.00	\$ 29,250.00	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot	2,150.00	\$ 365,500.00		assumes 5' width
Signal Mod (LP)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 450,250.00		

Project: US-101 Overcrossings - E San Antonio

Project Description: Widen sidewalk to create 10' shared use path between Bonita Ave and E San Antonio Ct
 Reconfigure San Antonio/Bonita Ave and San Antonio St/San Antonio Ct intersections with reduced curb radii (concrete build out for permanent condition)
 Restripe E San Antonio St between Bonita Ave and E San Antonio Ct

Project Category: US-101 Over Crossing
Phase: 2 - Infra
Length (ft.): 1,300.0
Length (mi.): 0.2462
Avg. Ctc (ft.): 45.0
Area (sqft): 58,500.0
Total Cost: \$ 643,750.00

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 0.50	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 67.50	sqft		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 4,000.00	per crosswalk	6.00	\$ 24,000.00	AHSC QG	
Crosswalk (Raised)	\$ 9,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner	9.00	\$ 31,500.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00	per extension		\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter

Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	58,500.00	\$ 29,250.00	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot	2,150.00	\$ 365,500.00		assumes 5' width
Signal Mod (LP)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 643,750.00		

Project:

E. Santa Clara

Project Description: Class IV bike lanes
 Bus only lanes
 Reduced curb radii at on and off ramps
 Enhanced pedestrian crossings
 Square up free right-turn on-ramps in both directions (WB and EB to NB 101, WB to SB 101)

Project Category: US-101 Over Crossing
 Phase: 1 - Quickbuild
 Length (ft.): 493.5
 Length (mi.): 0.0935
 Avg. Ctc (ft.): 73.4
 Area (sqft): 36,206.2
 Total Cost: \$ 65,841.54

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 0.50	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 67.50	sqft		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 4,000.00	per crosswalk	4.00	\$ 16,000.00	AHSC QG	
Crosswalk (Raised)	\$ 9,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway	0.09	\$ 3,738.44	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner	8.00	\$ 28,000.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00	per extension		\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	36,206.19	\$ 18,103.10	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 65,841.54		

Project:

E. Santa Clara

Project Description: Class IV bike lanes
 Bus only lanes
 Reduced curb radii at on and off ramps
 Enhanced pedestrian crossings
 Square up free right-turn on-ramps in both directions (WB and EB to NB 101, WB to SB 101)

Project Category: US-101 Over Crossing
 Phase: 2 - Infra
 Length (ft.): 493.5
 Length (mi.): 0.0935
 Avg. Ctc (ft.): 73.4
 Area (sqft): 36,206.2
 Total Cost: \$ 255,150.64

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 67.50	sqft		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	4.00	\$ 12,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	

Delineators (bollards)	\$ 40,000.00	per mile of bikeway	0.05	\$ 1,869.22	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway	0.05	\$ 23,178.33		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00	per extension	8.00	\$ 200,000.00	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	36,206.19	\$ 18,103.10	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 255,150.64		

Project: N. 31st St.

Project Description: Modify/upgrade bike/ped connection from 31st to pathway to Alum Rock Ave
 Construct missing sidewalk segments (Shorridge and 31st)
 Eliminate stops and add traffic calming (diverter, traffic circles, speed humps, bulbouts, etc) where feasible
 Signage and markings consistent as Bike Boulevard
 Install wayfinding signage along corridor

Project Category: Bike Boulevard
Phase: 1 - Quickbuild
Length (ft.): 3,340.4
Length (mi.): 0.6327
Avg. Ctc (ft.): 36.0
Area (sqft): 120,339.14
Total Cost: \$ 91,169.57

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 67.50	sqft		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	1	\$ 3,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner	8.00	\$ 28,000.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00			\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	120,339	\$ 60,169.57	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 91,169.57		

Project: N. 31st St.

Project Description: Modify/upgrade bike/ped connection from 31st to pathway to Alum Rock Ave

Project Category: Bike Boulevard
Phase: 2 - Infra
Length (ft.): 3,340.4
Length (mi.): 0.6327
Avg. Ctc (ft.): 36.0
Area (sqft): 120,339.14
Total Cost: \$ 128,169.57

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 67.50	sqft		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk		\$ -	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00			\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	120,339	\$ 60,169.57	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot	400	\$ 68,000.00		assumes 5' width

Signal Mod (LPI)	\$ 8,000.00	per intersection	\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection	\$ -		
Stop Sign	\$ 350.00		\$ -	NTM	
Street Trees			\$ -		
Wayfinding (Signage)			\$ -		
			Total Cost:	\$ 128,169.57	

Project: N. 33rd St.

Project Description: Eliminate stops and add traffic calming (diverters, traffic circles, speed humps, bulbouts, etc) where feasible
 Traffic calming especially needed between McKee and Alum Rock
 Signage and markings consistent as Bike Boulevard
 (encourage PRNS to add connection to Lower Silver Creek Trail when it is built)

Project Category: Transit Priority
Phase: 1 - Quickbuild
 Length (ft.): 5,385.6
 Length (mi.): 1.0200
 Avg. Ctc (ft.): 37.6
 Area (sqft): 202,552.4
Total Cost: \$ 229,076.21

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge	-	\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	8	\$ 24,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Chicanes / Speed Hump	\$ 5,000.00	each	3	\$ 15,000.00		
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway	-	\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner	8	\$ 28,000.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00			\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle - permanent)	\$ 30,000.00	per intersection		\$ -	NTM	
Intersection (neighborhood traffic circle - quick build)	\$ 10,000.00	per intersection	2	\$ 20,000.00	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft	480	\$ 7,200.00		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	202,552	\$ 101,276.21	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	2	\$ 16,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	8	\$ 17,600.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 229,076.21		

Project: N. 33rd St.

Project Description: Eliminate stops and add traffic calming (diverters, traffic circles, speed humps, bulbouts, etc) where feasible
 Traffic calming especially needed between McKee and Alum Rock
 Signage and markings consistent as Bike Boulevard
 (encourage PRNS to add connection to Lower Silver Creek Trail when it is built)

Project Category: Transit Priority
Phase: 2 - Infra
 Length (ft.): 5,385.6
 Length (mi.): 1.0200
 Avg. Ctc (ft.): 37.6
 Area (sqft): 202,552.4
Total Cost: \$ 5,489,556.21

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge	1	\$ 5,000,000.00	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop		\$ -	ATP grant app	
Bus stop (permanent boarding island)	\$ 150,000.00	per stop		\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop	-	\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	8	\$ 24,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Chicanes / Speed Hump	\$ 5,000.00	each	3	\$ 15,000.00		
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway	-	\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway	-	\$ -		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per bulbout		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00	per bulbout	8	\$ 200,000.00	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle - quickbuild)	\$ 10,000.00			\$ -	NTM	
Intersection (neighborhood traffic circle - permanent)	\$ 30,000.00		2	\$ 60,000.00	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter

Median (Island)	\$ 116.00	per sqft	480	\$ 55,680.00		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	202,552.42	\$ 101,276.21	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	2	\$ 16,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	8	\$ 17,600.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 5,489,556.21		

Project: San Antonio (w/ PBL)

Project Description: Class IV Bikeways
 High Visibility Pedestrian Crossings, ADA compliant elements (ramps, push buttons, etc.), pedestrian countdown timers and Accessible Pedestrian Signals (APS) at signalized intersections
 Bulbouts on approaches where feasible
 At Jackson: Protected intersection. Remove WB and NB free right movements. Tighten curb radii
 Provide green conflict striping at intersections/conflict points
 Install traffic circles on Sunset and Scharff on either side of E. San Antonio (these traffic circles should be included in those BB projects)

Project Category: Major Streets
Phase: 1 - Quickbuild Class IV
Length (ft.): 4,052.7 2,400.00
Length (mi.): 0.7676 0.45
Avg. Ctc (ft.): 71.1
Area (sqft): 288,323.73
Total Cost: \$ 455,943.68

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSI MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per pad		\$ -	ATP grant app	67.50 per sqft. Bus pads measured at 9' x 60' = 36,450 per pad. NACTO: bus pads should be at least 8.5' wide.
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	18	\$ 54,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk	1	\$ 20,000.00	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp	-	\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway	0.45	\$ 18,181.82	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway		\$ -		
Intersection (curb extension/bulbout - bollards)	\$ 9,500.00	per corner	22	\$ 77,000.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00			\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft	600	\$ 9,000.00		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal	2	\$ 100,000.00	AHSC QG	
Restriping	\$ 0.50	per sqft	288,324	\$ 144,161.86	WSI MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	2	\$ 16,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	8	\$ 17,600.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 455,943.68		

Project: San Antonio (w/o PBL)

Project Description: Center median
 High Visibility Pedestrian Crossings, ADA compliant elements (ramps, push buttons, etc.), pedestrian countdown timers and Accessible Pedestrian Signals (APS) at signalized intersections
 Bulbouts on approaches where feasible
 At Jackson: Protected intersection. Remove WB and NB free right movements. Tighten curb radii
 Provide green conflict striping at intersections/conflict points
 Narrow travel lanes and increase bike buffers
 Install traffic circles on Sunset and Scharff on either side of E. San Antonio (these traffic circles should be included in those BB projects)

Project Category: Major Streets
Phase: 1 - Quickbuild
Length (ft.): 4,052.7
Length (mi.): 0.7676
Avg. Ctc (ft.): 71.1
Area (sqft): 288,323.73
Total Cost: \$ 437,761.86

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSI MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per pad		\$ -	ATP grant app	67.50 per sqft. Bus pads measured at 9' x 60' = 36,450 per pad. NACTO: bus pads should be at least 8.5' wide.
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	18	\$ 54,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk	1	\$ 20,000.00	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp	-	\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway	-	\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway		\$ -		
Intersection (curb extension/bulbout - bollards)	\$ 9,500.00	per corner	22	\$ 77,000.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00			\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft	600	\$ 9,000.00		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal	2	\$ 100,000.00	AHSC QG	
Restriping	\$ 0.50	per sqft	288,324	\$ 144,161.86	WSI MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	2	\$ 16,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	8	\$ 17,600.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 437,761.86		

Project: San Antonio (w/ PBL)

Project Description: Class IV Bikeways
 Project Category: Major Streets
 Phase: 2 - Infra
 Length (ft.): 4,052.7
 Length (mi.): 0.7676
 Avg. Ctc (ft.): 71.1
 Area (sqft): 288,323.73
Total Cost: \$ 1,093,180.05

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSI MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per pad		\$ -	ATP grant app	67.50 per sqft. Bus pads measured at 9' x 60' = 36,450 per pad. NACTO: bus pads should be at least 8.5' wide.
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	18	\$ 54,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk	1	\$ 20,000.00	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp	-	\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway	0.23	\$ 9,090.91	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile. For full buildout, half the delineators will be replaced with planters
Delineators (planters)	\$ 496,000.00	per mile of bikeway	0.23	\$ 112,727.27		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00		22.00	\$ 550,000.00	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle - quickbuild)	\$ 10,000.00			\$ -	NTM	
Intersection (neighborhood traffic circle - permanent)	\$ 30,000.00			\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (island)	\$ 116.00	per sqft	600	\$ 69,600.00		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal	2	\$ 100,000.00	AHSC QG	
Restriping	\$ 0.50	per sqft	288,324	\$ 144,161.86	WSI MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	2	\$ 16,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	8	\$ 17,600.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 1,093,180.05		

Project: San Antonio (w/o PBL)

Project Description: Center median
 Project Category: Major Streets
 Phase: 2 - Infra
 Length (ft.): 4,052.7
 Length (mi.): 0.7676
 Avg. Ctc (ft.): 71.1
 Area (sqft): 288,323.73
Total Cost: \$ 971,361.86

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSI MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per pad		\$ -	ATP grant app	67.50 per sqft. Bus pads measured at 9' x 60' = 36,450 per pad. NACTO: bus pads should be at least 8.5' wide.
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	18	\$ 54,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk	1	\$ 20,000.00	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp	-	\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway		\$ -		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00		22.00	\$ 550,000.00	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (quickbuild neighborhood traffic circle)	\$ 10,000.00			\$ -	NTM	
Intersection (permanent neighborhood traffic circle)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (island)	\$ 116.00	per sqft	600	\$ 69,600.00		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal	2	\$ 100,000.00	AHSC QG	
Restriping	\$ 0.50	per sqft	288,324	\$ 144,161.86	WSI MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	2	\$ 16,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	8	\$ 17,600.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 971,361.86		

Project: Shortridge Ave

Project Description: Bike lane/route as developed through Better Bikeways Project
 Pedestrian crossing with RRFB or PHB
 Wayfinding signage along corridor

Project Category: Bike Boulevard
Phase: 2 - Infra
Length (ft.): 1,790.9
Length (mi.): 0.3392
Avg. Ctc (ft.): 39.3
Area (sqft): 70,443.81
Total Cost: \$ 90,621.90

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 67.50	sqft		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	8	\$ 24,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout)	\$ 13,000.00	per bulbout		\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	70,444	\$ 35,221.90	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	2	\$ 16,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	7	\$ 15,400.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 90,621.90		

Project: King Road

Project Description: Bus Queue Jumps at: Mabury, McKee, Alum Rock
 Upgrade existing bikeways to Class IV where feasible
 Bulbouts, tightened curb radii on street approaches where feasible (including St. James to shorten crossing to Plata Arroyo)
 Install High Visibility Pedestrian Crossings, ADA compliant elements (ramps, push buttons, etc.), pedestrian countdown timers and Accessible Pedestrian Signals (APS) at signalized intersections
 Provide RRBf or PHB controlled crossing at Shortridge or E San Fernando. Provide median refuge and eliminate left-turn access at one street (may require some parking removal)
 Schulte: Provide a new signalized intersection with an enhanced pedestrian crossing (part of Lower Silver Creek trail project as well)
 Crosswalks across minor approaches at unsignalized crossings
 Leading pedestrian intervals at all intersections with bus stops
 Virginia, Kammerer: Replace pull-out bus stops with transit islands with in-line stops
 Benches, shelters, pedestrian-scale lighting, and real-time arrival information at all bus stops
 St. James: Relocate/place NB and SB bus stops near crossing to Plata Arroyo Park
 Alum Rock: Remove parking to stripe bike slot per standard for SB approach. Modify striping to match standard for NB approach
 Green conflict striping at intersections/conflict points

Project Category:	Transit Priority		
Phase:	1 - Quickbuild	Bus Lanes	Class IV Bike Lane
Length (ft.):	10,630.7	2,283.00	7,300.00
Length (mi.):	2.0134		1.38
Avg. Ctc (ft.):	67.4		
Area (sqft):	716,708.3		
Total Cost:	\$ 3,733,753.17		

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway	27,396	\$ 27,396.00	WSJ MTIP (Zahi)	Assumes 12' lane
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop	12	\$ 600,000.00	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop	12	\$ 437,400.00	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop	12	\$ 720,000.00	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop	12	\$ 900,000.00	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	41	\$ 123,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway	1.38	\$ 55,303.03	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner	59	\$ 206,500.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00			\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft	480	\$ 7,200.00		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRBF)	\$ 50,000.00	per signal	4	\$ 200,000.00	AHSC QG	
Restriping	\$ 0.50	per sqft	716,708	\$ 358,354.14	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	6	\$ 48,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	23	\$ 50,600.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 3,733,753.17		

Project: King Road

Project Description: Bus Queue Jumps at: Mabury, McKee, Alum Rock
 Upgrade existing bikeways to Class IV where feasible
 Bulbouts, tightened curb radii on street approaches where feasible (including St. James to shorten crossing to Plata Arroyo)
 Install High Visibility Pedestrian Crossings, ADA compliant elements (ramps, push buttons, etc.), pedestrian countdown timers and Accessible Pedestrian Signals (APS) at signalized intersections
 Provide RRBf or PHB controlled crossing at Shortridge or E San Fernando. Provide median refuge and eliminate left-turn access at one street (may require some parking removal)
 Schulte: Provide a new signalized intersection with an enhanced pedestrian crossing (part of Lower Silver Creek trail project as well)
 Crosswalks across minor approaches at unsignalized crossings
 Leading pedestrian intervals at all intersections with bus stops
 Virginia, Kammerer: Replace pull-out bus stops with transit islands with in-line stops
 Benches, shelters, pedestrian-scale lighting, and real-time arrival information at all bus stops
 St. James: Relocate/place NB and SB bus stops near crossing to Plata Arroyo Park
 Alum Rock: Remove parking to stripe bike slot per standard for SB approach. Modify striping to match standard for NB approach
 Green conflict striping at intersections/conflict points

Project Category: Transit Priority

Phase: 2 - Infra
 Length (ft.): 10,630.7
 Length (mi.): 2.0134
 Avg. Ctc (ft.): 67.4
 Area (sqft): 716,708.3
Total Cost: \$ 6,265,960.44

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway	27,396	\$ 27,396.00	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop	12	\$ 600,000.00	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	sqft	12	\$ 437,400.00	ATP grant app	
Bus stop (permanent boarding island)	\$ 150,000.00	per stop	12	\$ 1,800,000.00		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop	12	\$ 720,000.00	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	41	\$ 123,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway	0.69	\$ 27,651.52	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway	0.69	\$ 342,878.79		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00		59	\$ 1,475,000.00	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft	480	\$ 55,680.00		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal	4	\$ 200,000.00	AHSC QG	
Restriping	\$ 0.50	per sqft	716,708	\$ 358,354.14	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	6	\$ 48,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	23	\$ 50,600.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 6,265,960.44		

Project: Lower Silver Creek Trail

Project Description: Provide enhanced/raised trail crossing; convert Sunset & Shortridge to all-way stop control
 Provide Class II bike lane (with parking removal on one side of street), widen effective sidewalk width on north side of Alum Rock between Checkers and Sunset, designate as mixed use path
 Provide intersection crossing marks and green conflict zone striping and trail wayfinding
 Alt 1: Provide a new signalized intersection at Schulte Dr. Convert NB on-street bike lane and sidewalk on east side of King Rd to a wide mixed-use facility between Schulte and Alum Rock
 Alt 2: Provide sidewalk/mixed use facility on west side of King Rd between Schulte and Alum Rock. Requires modification of bridge over creek to Walgreens
 Provide raised/enhanced trail crossing with median island and bulbouts
 Remove pork chop islands for NB and WB movements, modify curbs, and provide crosstrack bike crossing on north and east sides
 Provide enhanced/raised trail crossings; RRFBs

Project Category:	On-Street Trail Crossing	
Phase:	2 - Infra	Class IV Bike Path
Length (ft.):	1,829.7	850.00
Length (mi.):	0.3465	0.16
Avg. Ctc (ft.):	20.0	
Area (sqft):	36,593.25	
Total Cost:	\$ 1,277,803.52	

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge	-	\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge	-	\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway	-	\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop	1	\$ 50,000.00	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 67.50	sqft	1	\$ 67.50	ATP grant app	
Bus stop (permanent boarding island)			1	\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop	1	\$ 60,000.00	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	10	\$ 30,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk	1	\$ 20,000.00	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway	0.16	\$ 6,439.39	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout)	\$ 25,000.00	per bulbout	14	\$ 350,000.00	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (island)	\$ 116.00	per sqft	-	\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00		1	\$ 400,000.00	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal	1	\$ 50,000.00	AHSC QG	
Restriping	\$ 0.50	per sqft	36,593	\$ 18,296.63	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot	1,500	\$ 255,000.00		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	2	\$ 16,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	10	\$ 22,000.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 1,277,803.52		

Project:

Alum Rock (w/ PBL)

Project Description:

Protected Bike Lanes
 High Visibility Pedestrian Crossings
 ADA compliant elements (ramps, push buttons, etc.)
 Pedestrian countdown timers
 Accessible Pedestrian Signals (APS)
 Bulb outs (incl. minor street approaches)
 Curb extensions for in-lane stopping at local bus stops
 New/relocated/improved bus stops
 Implement leading pedestrian intervals at all intersections with bus stops
 Relocate bus stops to far-side
 Organize utilities in furnishing zone in front of Eastside Center and/or widen sidewalk through ROW acquiral or easement from Eastside Center

Project Category:

Major Streets

Phase:

1 - Quickbuild

Length (ft.):

#N/A

Length (mi.):

#N/A

Avg. Ctc (ft.):

#N/A

Area (sqft):

#N/A

Total Cost:

#N/A

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 0.50	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	38.00	\$ 114,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway	#N/A	#N/A	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway	-	\$ -		
Intersection (curb extension/bulb out - bollards)	\$ 3,500.00	per corner	40.00	\$ 140,000.00		
Intersection (curb extension/bulb out - concrete)	\$ 25,000.00	per extension		\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	#N/A	#N/A	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				#N/A		

Project:

Alum Rock (w/ PBL)

Project Description:

Protected Bike Lanes
 High Visibility Pedestrian Crossings
 ADA compliant elements (ramps, push buttons, etc.)
 Pedestrian countdown timers
 Accessible Pedestrian Signals (APS)
 Bulb outs (incl. minor street approaches)
 Curb extensions for in-lane stopping at local bus stops
 New/relocated/improved bus stops
 Implement leading pedestrian intervals at all intersections with bus stops
 Relocate bus stops to far-side
 Organize utilities in furnishing zone in front of Eastside Center and/or widen sidewalk through ROW acquiral or easement from Eastside Center

Project Category:

Major Streets

Phase: 2 - Infra
 Length (ft.): #N/A
 Length (mi.): #N/A
 Avg. Ctc (ft.): #N/A
 Area (sqft): #N/A
Total Cost: #N/A

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 0.50	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	38.00	\$ 114,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway	#N/A	#N/A	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway	#N/A	#N/A		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00	per extension	40.00	\$ 1,000,000.00	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	#N/A	#N/A	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				#N/A		

Project: Alum Rock (w/o BL)

Project Description: High Visibility Pedestrian Crossings
 ADA compliant elements (ramps, push buttons, etc.)
 Pedestrian countdown timers
 Accessible Pedestrian Signals (APS)
 Bulb outs (incl. minor street approaches)
 Curb extensions for in-lane stopping at local bus stops
 New/relocated/improved bus stops
 Implement leading pedestrian intervals at all intersections with bus stops
 Relocate bus stops to far-side
 Organize utilities in furnishing zone in front of Eastside Center and/or widen sidewalk through ROW acquiral or easement from Eastside Center

Project Category: Major Streets
 Phase: 1 - Quickbuild
 Length (ft.): 7,078.0
 Length (mi.): 1.3405
 Avg. Ctc (ft.): 86.7
 Area (sqft): 613,971.2
Total Cost: \$ 1,964,735.60

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop	5	\$ 250,000.00	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop	11	\$ 400,950.00	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop	11	\$ 660,000.00	SRVF UV Volar	
Bus stop (relocation)			6	\$ -		

Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	30	\$ 90,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway		\$ -		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner	40	\$ 140,000.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00	per extension		\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	613,971.21	\$ 306,985.60	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	8	\$ 64,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	24	\$ 52,800.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 1,964,735.60		

Project: Alum Rock (w/o BL)

Project Description:	Protected Bike Lanes
Project Category:	Major Streets
Phase:	2 - Infra
Length (ft.):	7,078.0
Length (mi.):	1.3405
Avg. Ctc (ft.):	86.7
Area (sqft):	613,971.2
Total Cost:	\$ 2,824,735.60

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop	5	\$ 250,000.00	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop	11	\$ 400,950.00	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop	11	\$ 660,000.00	SRVF UV Volar	
Bus stop (relocation)			6	\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	30	\$ 90,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway		\$ -		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00	per extension	40	\$ 1,000,000.00	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	613,971	\$ 306,985.60	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	8	\$ 64,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	24	\$ 52,800.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		

Wayfinding (Signage)			\$	-	
			Total Cost:	\$ 2,824,735.60	

Project: Jackson Ave

Project Description: Bus queue jumps at Alum Rock, McKee, and Mabury
 Convert existing buffered bikeways into protected bikeways where feasible
 High Visibility Pedestrian Crossings, pedestrian countdown timers and Accessible Pedestrian Signals (APS) at signalized intersections
 Bulbouts on minor street approaches
 Green conflict striping at intersections/conflict points
 Crosswalks across minor approaches at unsignalized crossings
 Enhanced bus stops (lights, trash receptacles, benches, real time arrival)

Project Category: Transit Priority
Phase: 1 - Quickbuild **Class IV Protected**
 Length (ft.): 18,494.5 **1,800.00**
 Length (mi.): 3.5028 **0.34**
 Avg. Ctc (ft.): 62.8
 Area (sqft): 1,162,230.0
Total Cost: \$ 1,972,351.38

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway	2,200	\$ 2,200.00	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop	8	\$ 400,000.00	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop	8	\$ 291,600.00	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop	8	\$ 480,000.00	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	16	\$ 48,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway	0.34	\$ 13,636.36	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway		\$ -		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner	22	\$ 77,000.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00			\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00	per signal		\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	1,162,230	\$ 581,115.02	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	6	\$ 48,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	14	\$ 30,800.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 1,972,351.38		

Project: Jackson Ave

Project Description: Bus queue jumps at Alum Rock, McKee, and Mabury
Project Category: Transit Priority
Phase: 2 - Infra
 Length (ft.): 18,494.5
 Length (mi.): 3.5028
 Avg. Ctc (ft.): 62.8
 Area (sqft): 1,162,230.0
Total Cost: \$ 2,600,078.65

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway	2,200	\$ 2,200.00	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop	8	\$ 400,000.00	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop	8	\$ 291,600.00	ATP grant app	

Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop	8	\$ 480,000.00	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk		\$ -	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway	0.17	\$ 6,818.18	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway	0.17	\$ 84,545.45		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00		27.00	\$ 675,000.00	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)				\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	1,162,230.04	\$ 581,115.02	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LP)	\$ 8,000.00	per intersection	6	\$ 48,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	14	\$ 30,800.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 2,600,078.65		

Project: Sunset Blvd.

Project Description: Eliminate stops and add traffic calming (diverters, traffic circles, speed humps, bulbouts, etc) where feasible
 Signage and markings consistent as Bike Boulevard
 Acquire ROW through industrial parking lot to connect Sunset to Liberia Circle on north side of Alum Rock
 Traffic circles at intersections on either side of San Antonio

Project Category: Bike Boulevard
Phase: 1 - Quickbuild
 Length (ft.): 6,367.2
 Length (mi.): 1.2059
 Avg. Ctc (ft.): 41.9
 Area (sqft): 266,601.7
Total Cost: \$ 410,650.86

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway	250	\$ 250.00	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	11	\$ 33,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk	4	\$ 80,000.00	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner	3	\$ 10,500.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00	per extension		\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (quickbuild neighborhood traffic circle)	\$ 40,000.00		3	\$ 120,000.00	NTM	
Intersection (permanent neighborhood traffic circle)	\$ 100,000.00			\$ -		
Intersection (traffic diverter - permanent)	\$ 10,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	266,602	\$ 133,300.86	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	2	\$ 16,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	8	\$ 17,600.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 410,650.86		

Project: Sunset Blvd.

Project Description: Eliminate stops and add traffic calming (diverters, traffic circles, speed humps, bulbouts, etc) where feasible
 Signage and markings consistent as Bike Boulevard
 Acquire ROW through industrial parking lot to connect Sunset to Liberia Circle on north side of Alum Rock
 Traffic circles at intersections on either side of San Antonio

Project Category: Bike Boulevard
Phase: 2 - Infra
 Length (ft.): 6,367.2
 Length (mi.): 1.2059
 Avg. Ctc (ft.): 41.9
 Area (sqft): 266,601.7
Total Cost: \$ 445,150.86

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway	250	\$ 250.00	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	11	\$ 33,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk	4	\$ 80,000.00	NTM	
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	

Delineators	\$ 40,000.00	per mile of bikeway		\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner		\$ -		
Intersection (curb extension/bulbout)	\$ 25,000.00	per corner	3	\$ 75,000.00	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (quickbuild neighborhood traffic circle)	\$ 10,000.00			\$ -	NTM	
Intersection (permanent neighborhood traffic circle)	\$ 30,000.00		3	\$ 90,000.00		
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	266,601.72	\$ 133,300.86	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection	2	\$ 16,000.00		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Accessible Pedestrian Signals (APS)	\$ 2,200.00	per crosswalk	8	\$ 17,600.00		Kimley-Horn recent installation
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 445,150.86		

Project: Jose Figueres

Project Description: Eliminate stops and add traffic calming (diverters, traffic circles, speed humps, bulbouts, etc) where feasible
Signage and markings consistent as Bike Boulevard

Project Category: Transit Priority
Phase: 1 - Quickbuild
Length (ft.): 6,632.9
Length (mi.): 1.2562
Avg. Ctc (ft.): 47.2
Area (sqft): 312,824.4
Total Cost: \$ 292,912.19

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	15.00	\$ 45,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Chicanes / Speed Hump	\$ 5,000.00	each	1	\$ 5,000.00		
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators	\$ 40,000.00	per mile of bikeway	-	\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner	19.00	\$ 66,500.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00			\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)	\$ 10,000.00		2.00	\$ 20,000.00	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	312,824.38	\$ 156,412.19	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 292,912.19		

Project: Jose Figueres

Project Description: Eliminate stops and add traffic calming (diverters, traffic circles, speed humps, bulbouts, etc) where feasible
Signage and markings consistent as Bike Boulevard

Project Category: Transit Priority
Phase: 2 - Infra
Length (ft.): 6,632.9
Length (mi.): 1.2562
Avg. Ctc (ft.): 47.2
Area (sqft): 312,824.4
Total Cost: \$ 741,412.19

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 36,450.00	per stop		\$ -	ATP grant app	
Bus stop (permanent boarding island)	\$ 150,000.00	per stop		\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop	-	\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	15	\$ 45,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk		\$ -	NTM	
Chicanes / Speed Hump	\$ 5,000.00	each	1	\$ 5,000.00		
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	

Delineators (bollards)	\$ 40,000.00	per mile of bikeway	-	\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway	-	\$ -		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per bulbout		\$ -		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00	per bulbout	19	\$ 475,000.00	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (neighborhood traffic circle)	\$ 10,000.00			\$ -	NTM	
Intersection (neighborhood traffic circle - permanent)	\$ 30,000.00		2	\$ 60,000.00	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	312,824	\$ 156,412.19	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 741,412.19		

Project: Kammerer Ave.

Project Description: Eliminate stops and add traffic calming (diverters, traffic circles, speed humps, bulbouts, etc) where feasible
 Signage and markings consistent as Bike Boulevard
 Traffic circle at Sunset
 Community request to incorporate local art into this project

Project Category: Bike Boulevard
Phase: 1 - Quickbuild
 Length (ft.): 4,120.4
 Length (mi.): 0.7804
 Avg. Ctc (ft.): 41.1
 Area (sqft): 169,449.76
Total Cost: \$ 184,724.88

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 67.50	sqft		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	5	\$ 15,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk	2	\$ 40,000.00	NTM	
Chicanes / Speed Hump	\$ 5,000.00	each	2	\$ 10,000.00		
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway	-	\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway		\$ -		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner	10	\$ 35,000.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00			\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (quickbuild neighborhood traffic circle)	\$ 10,000.00			\$ -	NTM	
Intersection (permanent neighborhood traffic circle)	\$ 30,000.00			\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	
New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC QG	
Restriping	\$ 0.50	per sqft	169,450	\$ 84,724.88	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 184,724.88		

Project: Kammerer Ave.

Project Description: Bulbouts at street intersections where feasible
 Wayfinding signage along corridor
 Traffic circle at Sunset

Project Category: Bike Boulevard
Phase: 2 - Infra
 Length (ft.): 4,120.4
 Length (mi.): 0.7804
 Avg. Ctc (ft.): 41.1
 Area (sqft): 169,449.76
Total Cost: \$ 399,724.88

	Unit Price	Units	Qty.	Cost	Source	Notes
Bridge - rebuild	\$ 3,000,000.00	per bridge		\$ -	VZ	VZ estimate for rebuilding bridge to Walgreens at McKee and King
Bridge (bike/ped)	\$ 5,000,000.00	per bridge		\$ -	Measure T est.	Based off estimate for bridge over Babb Creek.
Bus lanes (red pavement)	\$ 1.00	per area of roadway		\$ -	WSJ MTIP (Zahi)	
Bus Stop (benches, shelters, ped-scale lighting)	\$ 50,000.00	per stop		\$ -	SRVF UV Volar	
Bus Stop (new bus pad)	\$ 67.50	sqft		\$ -	ATP grant app	
Bus stop (permanent boarding island)				\$ -		
Bus Stop (real-time arrival information)	\$ 60,000.00	per stop		\$ -	SRVF UV Volar	
Bus stop (relocation)				\$ -		
Bus stop (temp. boarding island)	\$ 75,000.00	per stop		\$ -	BBSJ	Temporary bus platforms were around \$75k plus labor, with a lot of variation based on length.
Crosswalk (High Visibility)	\$ 3,000.00	per crosswalk	5	\$ 15,000.00	AHSC QG	
Crosswalk (Raised)	\$ 20,000.00	per crosswalk	2	\$ 40,000.00	NTM	
Chicanes / Speed Hump	\$ 5,000.00	each	2	\$ 10,000.00		
Curb Ramp	\$ 7,500.00	per curb ramp		\$ -	AHSC QG	
Delineators (bollards)	\$ 40,000.00	per mile of bikeway	-	\$ -	BBSJ AHSC QG	Each delineator was \$100 plus labor, so a total of \$200 maximum. BBSJ: ordered about 2000 for 5 miles of protected bike lanes plus some diverters and protected intersections elsewhere. Quetzal gardens grant application estimate: \$20-40,000 per mile.
Delineators (planters)	\$ 496,000.00	per mile of bikeway		\$ -		
Intersection (curb extension/bulbout - bollards)	\$ 3,500.00	per corner	10	\$ 35,000.00		
Intersection (curb extension/bulbout - concrete)	\$ 25,000.00			\$ -	NTM	10-13,000 - high end includes drainage
Intersection (Reduced curb radii)				\$ -		
Intersection (quickbuild neighborhood traffic circle)	\$ 40,000.00			\$ -	NTM	
Intersection (permanent neighborhood traffic circle)	\$ 100,000.00			\$ -	NTM	
Intersection (traffic diverter - permanent)	\$ 30,000.00			\$ -		
Intersection (traffic diverter - quick build)	\$ 4,500.00	per delineator		\$ -	BBSJ	14 delineators @ 10th and St. John diverter
Median (Island)	\$ 116.00	per sqft		\$ -		Average median island cost somewhere between \$10,000 to \$14,000 each (Civil) This is usually 5 to 6 feet wide and 15 to 20 feet long and 6 inch high. (\$14,000/120 sqft = \$116 per sqft)
Median (painted)	\$ 15.00	per sqft		\$ -		
New Signal (HAWK)	\$ 600,000.00	per signal		\$ -	AHSC QG	
New Signal (ped scramble)				\$ -		
New Signal (regular)	\$ 400,000.00			\$ -	Signals	

New Signal (RRFB)	\$ 50,000.00	per signal		\$ -	AHSC O/G	
Restriping	\$ 0.50	per sqft	169,450	\$ 84,724.88	WSJ MTIP (Zahi)	
Sidewalk (new)	\$ 32.00	per linear foot		\$ -		assumes 5' width
Sidewalk + Gutter + Curb (new)	\$ 170.00	per linear foot		\$ -		assumes 5' width
Signal Mod (LPI)	\$ 8,000.00	per intersection		\$ -		Kimley-Horn recent installation
Signal Mod (Transit Priority)	\$ 15,000.00	per intersection		\$ -		
Stop Sign	\$ 350.00			\$ -	NTM	
Street Trees				\$ -		
Wayfinding (Signage)				\$ -		
Total Cost:				\$ 399,724.88		