Santa Clara Valley Transportation Authority

GREAT MALL STATION ACCESS STUDY

March 2026

Valley Transportation Authority

FORWARD City Labs

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1 Introduction

The **Great Mall Station Access Study** evaluates transportation conditions and access challenges surrounding the **Great Mall VTA Light Rail Station.** This effort supports the Santa Clara Valley Transportation Authority's (VTA) broader goals of enhancing multimodal connectivity, promoting equitable transit-oriented development (TOD), and improving safety and accessibility for all users. The study area encompasses the station platform, the VTA-owned 4-acre parcel adjoining the station which is slated for multifamily development, the adjacent transit facilities, and surrounding corridors within a half-mile radius, including **Great Mall Parkway, South Main Street,** and key intersections that influence station access as shown in Figure 1-1.

The Final Report consolidates findings from technical analysis, community engagement, and policy review to identify strategies that improve first- and last-mile connections, enhance safety, and support sustainable mobility. Recommendations are informed by existing conditions, projected growth patterns, and input from residents, stakeholders, and agency partners.

Figure 1-1. Study Area

1.1 Study Background

The Great Mall VTA Light Rail Station is a critical station served by VTA Light Rail, and local buses, and in very close proximity to Milpitas Transit Center with BART station. Located adjacent to the Great Mall shopping complex, the station area acts as primary access to the retail destination for transit riders. The area around the Great Mall Light Rail Station is a focal point for high-density growth with recent development and future planned densities, signaling its role in advancing walkable, mixed-use development near high-quality transit. Despite this designation, the surrounding environment is characterized by wide arterials, auto-oriented land uses, and physical barriers such as **Great Mall Parkway, Montague Expressway and I-880**, which limit safe and convenient access for pedestrians and bicyclists.

The study responds to regional and local priorities, including the Milpitas Gateway-Main Specific Plan, the Milpitas Metro Specific Plan, VTA's Station Access Policy, Complete Streets initiatives, and Vision Zero safety goals. It also aligns with state and regional frameworks such as the Metropolitan Transportation Commission's Transit-Oriented Communities Policy and Caltrans' Complete Streets directive. These policies emphasize reducing vehicle miles traveled (VMT), improving active transportation networks, and fostering equitable access to transit.

1.2 Purpose of Report

The purpose of this report is to provide a comprehensive framework for improving multimodal access to the Great Mall Light Rail Station. Specifically, the report aims to:

- **Document Existing Conditions:** Assess current infrastructure, travel patterns, and safety concerns for all modes
- **Analyze Future Conditions:** Consider planned growth, policy changes, and infrastructure projects that will shape station access
- **Engage the Community:** Incorporate feedback from residents, businesses, and stakeholders to ensure recommendations reflect local priorities
- **Identify Needs and Opportunities:** Highlight gaps in connectivity, safety, and amenities for equitable access
- **Recommend Improvements:** Propose strategies to enhance pedestrian, bicycle, transit, and vehicular access
- **Estimate Costs and Prioritize Actions:** Provide a phased implementation plan that aligns with available funding and policy objectives

1.3 Executive Summary

Strategic Vision

As the VTA Orange Line area of influence across the County evolves into a high-density, transit-oriented node, there is a critical opportunity to redefine the **Great Mall VTA Light Rail Station** as a premier gateway to the neighborhood and the retail anchor. By leveraging the Great Mall's status as a regional retail and entertainment destination, existing high density housing and aligning with City-led specific plans for increased density, the Access Study aims to recommend measures that

- provide safe access to transit,
- foster a seamless,
- multi-modal ecosystem that encourages "trip chaining",
- reduces reliance on single-occupancy vehicles
  and
- increases ridership in VTA transit services.

Key Objectives & Challenges came to surface throughout the study:

- **Active Mobility Infrastructure & Safety:** The Great Mall Station Access Study assessments have identified the Great Mall Parkway as a high-need corridor leading to vehicular congestion, pedestrian safety concerns and as a barrier to access transit. Overcoming the current conflicted interest between the vehicles and pedestrians, requires a strategic re-prioritization of right-of-way usage to support multi mobility solutions specifically increasing safety for station access from south of Great Mall Parkway.
- **Elevating Station as Mobility Hub:** The station's existing configuration—coupled with physical barriers and lack of multimodal transfers—creates significant challenges for intuitive access and passenger comfort. To address these deficiencies, the strategy focuses on transforming the station into a vibrant neighborhood anchor and a mobility hub with transit amenities and seamless multimodal connectivity.
- **Identity and Placemaking:** The current elevated configuration of the station lacks visibility, way-finding and experiential qualities. Proposed enhancements include unique branding, public art installations, and updating the wayfinding to MTC's Regional Mapping and Wayfinding Project recommendations and seamless "low stress" bike-ped connections to local amenities like trail network, retail, parks and neighborhood scale streets.
- **Stakeholder Synergy:** Success depends on active collaboration between a variety of public agencies and private sector partners to align transit goals with the rapid commercial and residential growth slated for the area.

2 Station Area Context and Layout

2.1 Regional Context

The **VTA Orange Light Rail Line** and **Frequent Bus Route 66** serve the Great Mall VTA Station, anchoring this area as a significant regional node in northeast part of Santa Clara County as shown in Figure 2-1. This connectivity is crucial for current and future trip patterns.

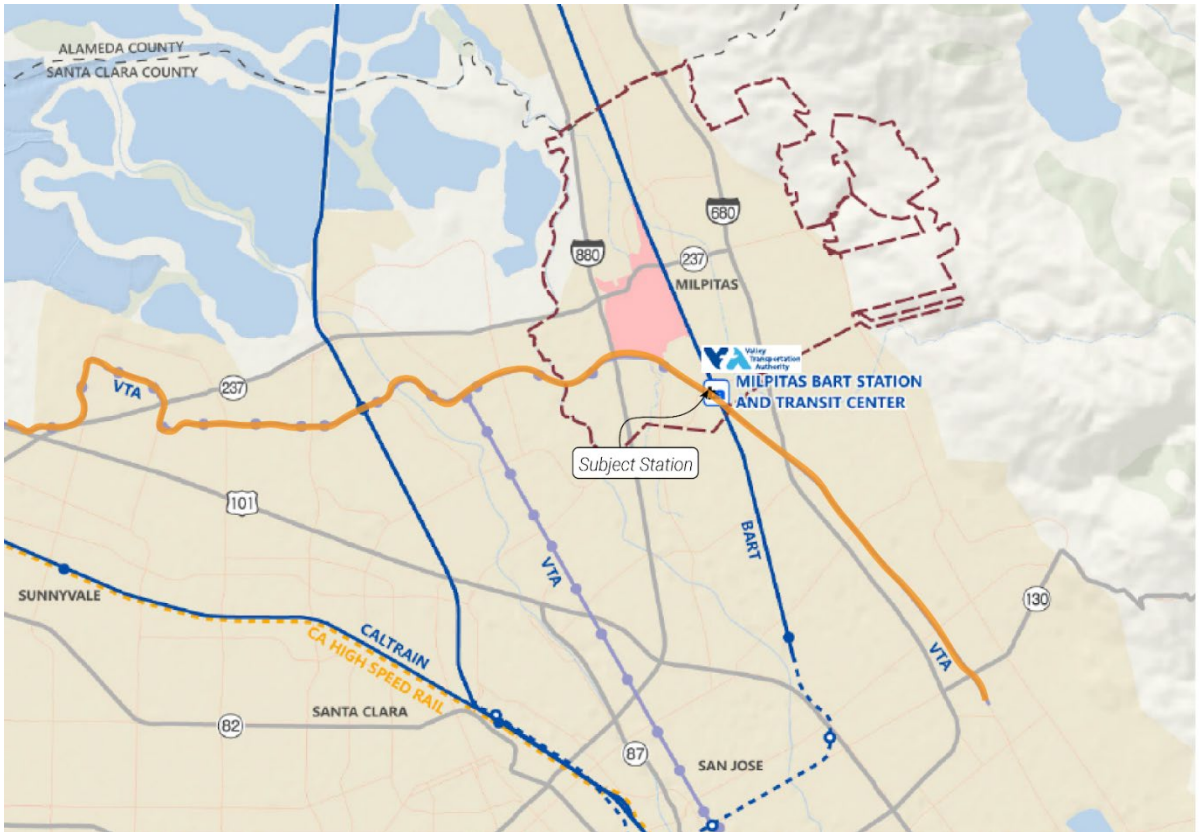


Figure 2-1. Regional Context along VTA Orange Light Rail
(Source: Milpitas Metro Specific Plan)

2.1.1 Regional Connectivity & Influence

- **Regional Rail Access**: The Orange Line provides essential connections to major regional transit systems, including Caltrain, Capitol Corridor, ACE, and BART. The Orange Line links major cities (San Jose, Milpitas, Santa Clara, Sunnyvale, Mountain View) and critical destinations like Levi's Stadium, Great America, the Santa Clara Convention Center, and Moffett Field.
- **Ridership Patterns**: The line serves a unique mix of users, accommodating both traditional commuters and trips for events/entertainment. Events at Levi's Stadium, including major sporting events and concerts significantly increase occasional ridership, particularly from visitors unfamiliar with the station and the region.
- **Future Development Patterns:** The Orange Line corridor is on the brink of a major transformation, catalyzed by the Gateway-Main Street and Milpitas Metro Specific Plans, along with similar plan in neighboring jurisdictions. Supported by state mandates like SB 79 and SB 2097—alongside the regional MTC TOC Policy—these up-zonings will introduce thousands of new residential units, jobs and extensive mixed-use spaces. This robust development pipeline signals a looming, sharp increase in demand for high-capacity transit and integrated mobility solutions.

Key Findings: Regional Context

- **Increased Trip Chaining:** Significant growth in trip chaining (combining errands/activities/routine tasks into one transit trip) is anticipated due to existing destinations (like Great Mall and Levis stadium) and the extensive future development planned along the Orange Line corridor.
- **Vulnerability to Event Crowds:** Increased pressure on the Great Mall Station during stadium events highlights a critical gap; while it serves as a vital last-mile link for Levi’s Stadium, it lacks the proper operational capacity and wayfinding to handle the volume of transit-based commuters.

2.2 Layout of The Half-Mile TOC Study Area and Existing Amenities

The Transit-Oriented Community (TOC) study area is a half-mile radius surrounding the VTA Great Mall Light Rail Station, which sits elevated above the intersection of Great Mall Parkway and North Main Street.

2.2.1 Study Area Division and Land Use

- The area is roughly divided into four quadrants by Great Mall Parkway and the Union Pacific Rail lines as shown in Figure 2-2.
- The Great Mall, Home Depot, and associated surface parking dominate the immediate station.
- The surrounding half mile includes residential neighborhoods, new townhomes, and multifamily developments.
- The Milpitas Transit Center with BART Station is located on the outer edge, three quarters of a mile from the Great Mall Station.

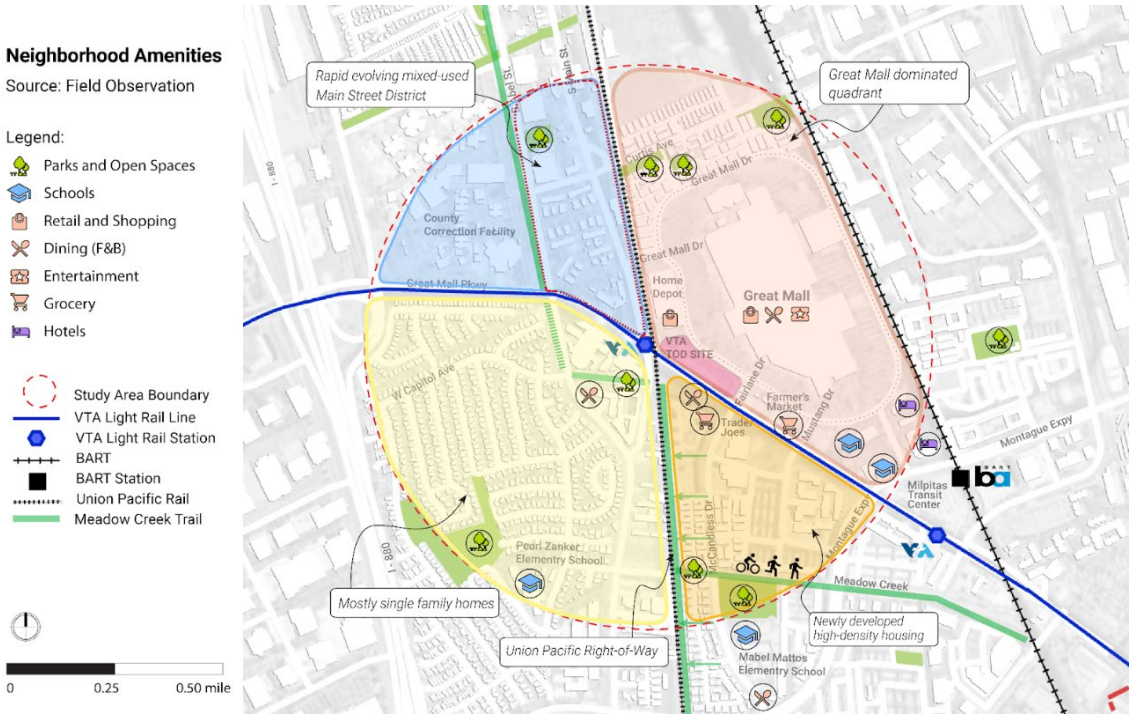


Figure 2-2. Layout of 1/2 Mile TOC Study Area and Amenities

2.2.2 Neighborhood Amenities and Assets

The study area is rich in neighborhood amenities that support a walkable, transit-oriented community as listed in the Table 2-1.

Category	Amenities Available
Parks & Recreation	Pinewood Park, Delano Manongs Park (tot lots, facilities), Creek Trails (stress-free active recreation)
Essential Retail	Primary Grocery Store (Trader Joe's), Food & Beverage Options (at Great Mall), Home Depot
Education	Two Public Elementary Schools, Two Private Schools
Transit & Parking	Great Mall Light Rail Station, and Milpitas Transit Center and BART Station, Corporate Park and Ride at Great Mall and a Gas Station
Other	Entertainment (theater), Two Hotels, Weekly Farmer's Market

Table 2-1. List of Neighborhood Amenities

Key Findings: Study Area and Neighborhood

- **Local Trip Potential:** The abundance of essential amenities in close proximity (parks, grocery, schools, transit) means many local trips can be made using alternative, non-automobile modes.
- **Dual Station Proximity:** The Milpitas Transit Center with BART Station is only three quarters of a mile away, offering more regional access options with BART, multiple bus lines and transit amenities (parking garage, secure bike parking, Restrooms).

2.3 Great Mall Shopping Center

As a central **regional retail and entertainment hub**, the Great Mall significantly influences station access and surrounding development.

2.3.1 Influence and Challenges

The Great Mall Shopping Center is a significant regional asset with substantial economic and transit-related implications.

- **Economic Driver:** It serves as a major contributor to Milpitas's economy as a regional recreational and retail hub, generating considerable sales tax revenue.
- **Employment Hub:** The mall is a key employment center, supporting over 1,500 daily employees with peaks reaching 3,500 during the holiday season, based on conversations with the mall's property management.
- **Transit Importance:** The Great Mall is instrumental in driving peak weekend VTA ridership based on VTA reported ridership data, affirming its role as a principal destination for public transit users.
- **Auto-Oriented Design:** The facility's current planning heavily favors vehicular access, which is evident in the extensive surface parking. This parking area is sized for peak holiday demand, leading to significant underutilization during non-peak periods. Furthermore, this design makes it difficult and unwelcoming for transit users to walk easily to the mall entrance.
- **Private Property Mobility Issues:** Safe pedestrian and bicycle infrastructure connecting the Mall entry points to public transit and mobility routes (crosswalks, bikes lanes and sidewalks) is notably limited as Great Mall Drive is privately owned.

Key Findings: Great Mall Shopping Center

- **Prioritized Auto Access:** The mall's design overwhelmingly favors vehicle access, resulting in extensive, underutilized parking and limited safe bike/pedestrian infrastructure on its private roads.
- **Wayfinding Deficit:** The lack of public transit wayfinding on the Great Mall property creates a barrier for transit users.

3 Existing Conditions

3.1 Planning Document Review

Prior and current planning documents provide comprehensive context for planning initiatives and projects in the Great Mall Station area. A total of 19 planning and policy documents were reviewed among the key public agencies governing land use, development and infrastructure operations: The City of Milpitas, VTA, BART and MTC. Together, these planning and policy initiatives inform a greater understanding of the multilayered and multifaceted system of station access concerns.

3.1.1 Current Planning by City of Milpitas

This review summarizes the eight core planning documents in the City of Milpitas relevant to Great Mall Station access including the two core planning documents, Milpitas Gateway-Main Street Specific Plan and Milpitas Metro Specific Plan as shown in Figure 3-1.

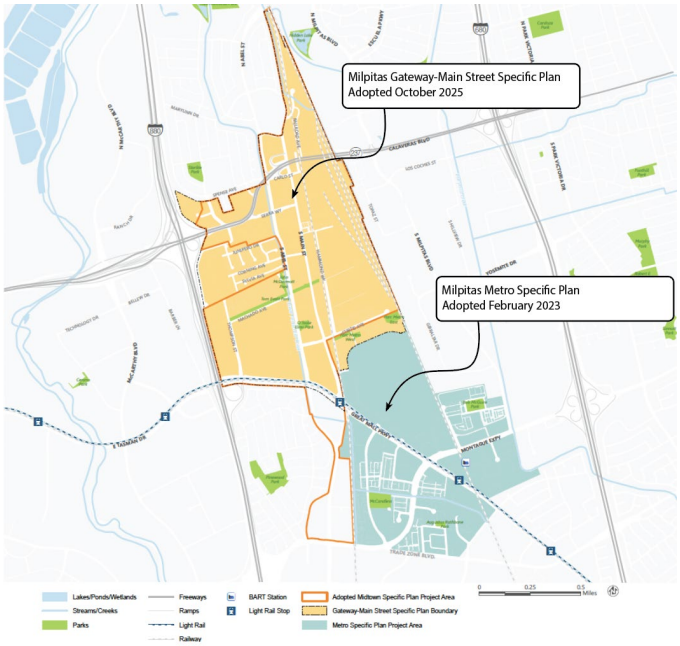


Figure 3-1. Gateway-Main and Milpitas Metro Specific Plan

Milpitas Gateway-Main Street Specific Plan, 2025

The Gateway-Main Street Specific Plan is an update from the Milpitas "Midtown" Plan, which encompasses a 589-acre area north of Great Mall and focuses on the revitalization of the Calaveras Boulevard gateway and historic Main Street which extends southward into the Great Mall Access Study area. The Plan focuses on lower-scale residential and commercial infill densities to support a wider variety of housing types, and to create walkable, active streets with ground floor shops, casual public spaces and dining destinations. The Main Street District is the primary neighborhood and road connecting the Plan to the VTA Great Mall station. The streetscape improvements planned along Main Street as shown in Figure 3-2 should act as an access gateway to the Great Mall station.

Key Takeaways

- Revitalize the Calaveras Boulevard and historic Main Street
- Complimentary mixed-use infill development
- Implement streetscape improvements that activate walkability and business development

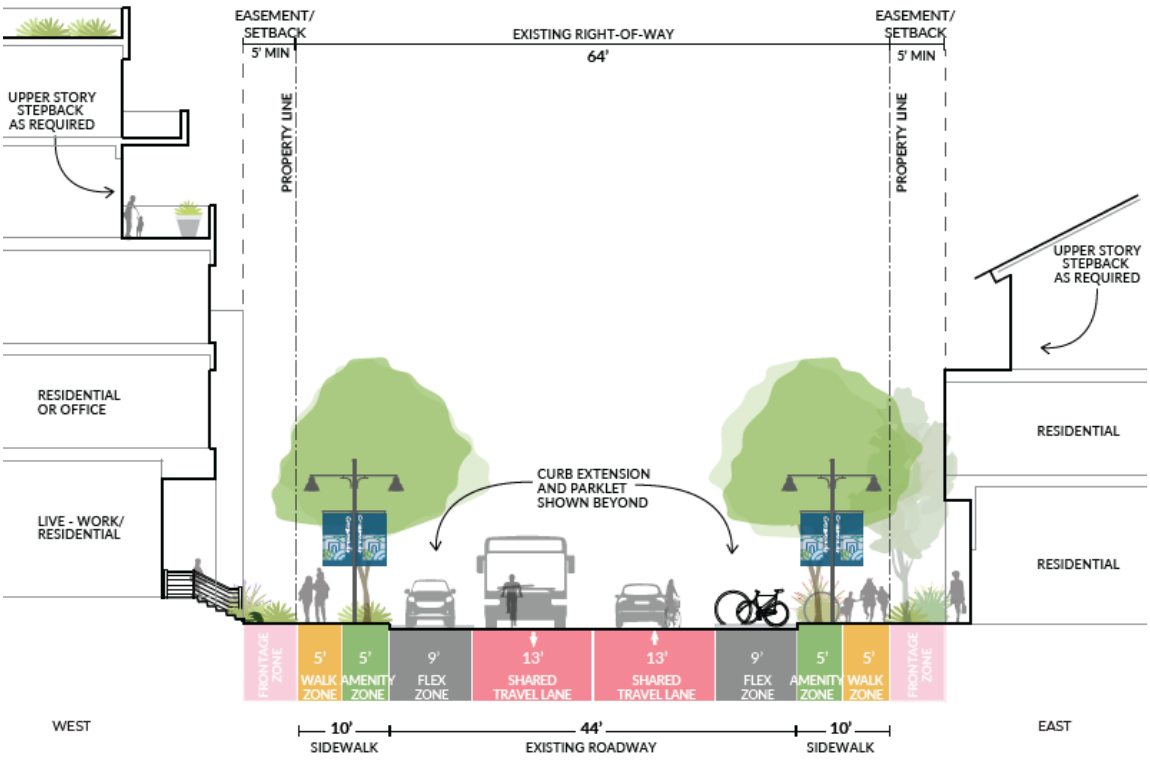


Figure 3-2. South Main Street Section in the Main Street District

Milpitas Metro Specific Plan, 2023

The Milpitas Metro Specific Plan (MMSP) is an update to the Transit Area Specific Plan (TASP) completed in 2008. Anchored by the Milpitas Transit Center and BART station in the southern portion of the city, the Metro Plan provides a detailed update to surrounding residential and commercial densities. New density in the Plan area supports both the high opportunity for regional job growth, and the growth of local-serving retail for the emerging transit-oriented neighborhood. The plan increases the 437-acre TASP boundary to 510 acres and organizes the formerly industrial- and auto-oriented area into five distinct districts, two of which (Great Mall and McCandless) overlap with the Great Mall Access Study area.

Key Takeaways

- Updates zoning to create higher density mixed-use development
- Recommends improvements to pedestrian and bicycling connections along Great Mall Parkway
- Encourages placemaking to create an active outdoor public space network

Milpitas General Plan 2040, 2021

The Milpitas General Plan is the primary policy document setting goals, policies and implementation actions for future decision making in land use, housing, open space and other elements required by state law. The Plan land use classifications support local and regional housing and jobs growth near major transit and travel facilities. A mix of specific plans, overlay zoning districts, and the density bonus Affordable Housing Ordinance create opportunities to augment densities and intensities for context-specific areas.

Key Takeaways

- Create vibrant local-serving retail in Neighborhood Commercial Mixed Use (NCMU) zones
- Land use in the Great Mall study area is largely governed by Milpitas Metro and Gateway-Main Specific Plans

Milpitas 2023-2031 Housing Element, 2023

The City of Milpitas Housing Element plans for 6,713 additional housing units by 2031. Updated mixed-use zones throughout the city in recent specific plans significantly densify residential zoning around high-quality transit. The Milpitas Metro Plan and new General Plan overlay zones will accommodate the majority of new housing. The Metro plan area has some of the highest entitlement and impact fees for single- and multi-family development; average impact fee per unit is $48,500. The Transit Area

Development Impact fee (TADIF) applies to particular areas for new infrastructure and public amenities. Milpitas has provided city-owned land to developers at no cost.

Key Takeaways

- Most new housing will occur in the Metro Plan Area
- Currently 2193 units in the pipeline

Milpitas Parks and Recreation Master Plan Update, 2021

The Milpitas Parks and Recreation Master Plan provides an overview of public parks and open space recreation areas. The plan provides a comprehensive assessment of the city demographics, recreation trends and citywide programming and events for the public. The Plan's goal is to create a vibrant and connected network of accessible parks and trails in the city which is encouraged by incorporating placemaking elements that weave together new developments with plazas, pocket parks and public space gathering.

There are six public parks in the Great Mall Study area: Pinewood Park and Delano Manongs on the southern study area perimeter, and O'tool Elms Park and three parks in the Parc Metro residential development in the northern study area. A network of creek trails and bike paths connect parks and plazas within the study area.

Key Takeaways

- New development should create connections to parks and open space network
- The study area contains six public parks
- Several daylit creek trails intersect the study area creating connectivity and placemaking opportunities

Citywide Travel Safety Plan, 2024

The Citywide Travel Safety Plan serves two purposes: to identify transportation improvements based on collision data and input from stakeholders and the community; and to serve as a resource for staff to pursue funding for the identified improvements. The plan covered:

Review of 2017-2021 Crash Data

- Statistical analysis of the 2017-2021 crash data determined the leading causes of collisions, and identified locations with a higher likelihood of crashes
- The plan found that the intersection of Great Mall Parkway and Montague Expressway is one of 16 locations in Milpitas with a higher than average crash rate) as shown in Figure 3-3.

- Crashes on Great Mall Parkway have a higher crash severity (Equivalent Property Damage Only, EPDO) than most other locations in Milpitas

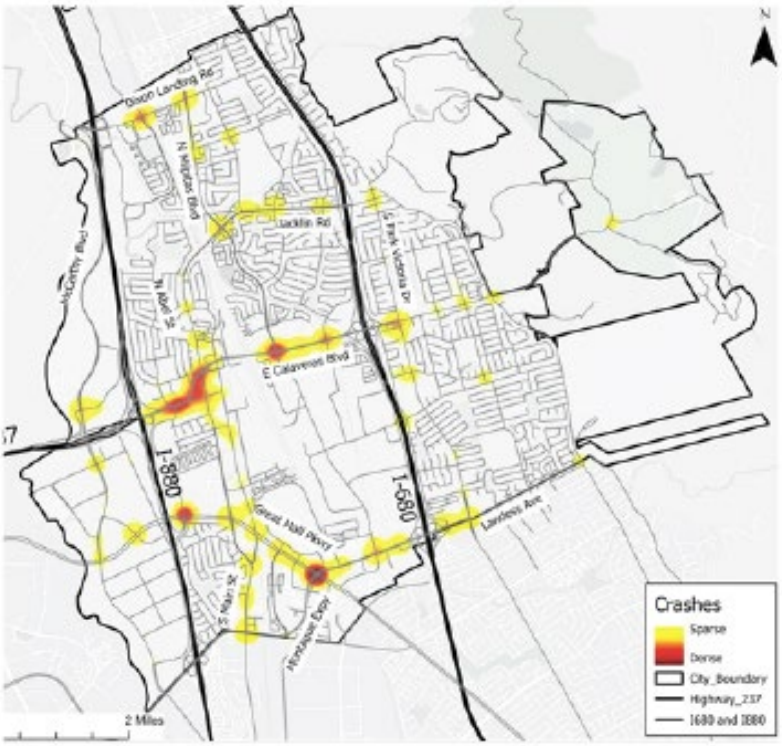


Figure 3-3. Injury Crash Map

(source: Citywide Travel Safety Plan, 2024)

The plan found the primary causes of crashes in the study area were:

- Unsafe speed
- Right-of-way violations
- Ignoring signals/signs and improper turning
- The arterial street design prioritizes speed and contributes to a dangerous & uninviting environment for people trying to access the station without a vehicle.

Recommended **mitigation measures** include:

- **Near term:** leading pedestrian intervals (pedestrians get a walk signal a few seconds before the green light for vehicles), retroreflective backplates for traffic signal heads (the reflective surround makes signals more conspicuous), and advance stop bars (stop bars ahead of crosswalk ensure vehicles do not intrude in pedestrian space)
- **Medium term:** pedestrian fencing on northern approach to address jaywalking, accessible pedestrian signals, and ADA ramp upgrades
- **Preferred community improvements (in order of preference):** Improved signal timing, leading pedestrian intervals, flashing warning beacons, pedestrian refuge islands, flashing stop signs (stop signs made more conspicuous by flashing

lights), separated bike lanes, raised pedestrian crossings, and additional signage for pedestrian crossings

Priority locations include:

- Great Mall Parkway and Montague Expressway
- Great Mall Parkway and McCandless Drive
- S Main Street and Montague Expressway
- S Main Street and Abel Street

Crash Severity	Count	%
1 - Fatal	1	0.8%
2 - Injury (Severe)	5	3.8%
3 - Injury (Other Visible)	47	35.9%
4 - Injury (Complaint of Pain)	78	59.5%
Total	**131**	**100%**

Table 3-1. Crashes in Study Area, 2017-2021

Capital Improvement Plan, 2025-2029

The 2025-2029 Capital Improvement Plan (approved August 1st, 2024) covers city investments for the construction, maintenance or improvement of public infrastructure between 2025 – 2029. The plan identifies priority projects, estimated costs, and funding sources. The Plan includes projects within the Great Mall Station area as shown in Figure 3-4. Milpitas prepares an updated five-year capital improvement plan annually, making adjustments to the prior plan based on changes to city priorities, funding availability, and project progress.

Category:	Street Improvement
City Council Priority:	Community Wellness and Open Space
Project Location:	Great Mall Parkway
Managing Department:	Public Works - Engineering
Contact Person:	Michael Silveira [3303]/ Lyhak Eam [3349]
Project Stage:	Planning
Estimated Schedule	
Design:	2026-2027
Construction:	2027-2028
Recurring Project:	No

Project #2001, Light Rail Median Landscaping
Source: Adopted Capital Improvement Program, 2025 – 2029, City of Milpitas

Figure 3-4. Light Rail Median Landscaping

(source: Adopted Capital Improvement Program, 2025-2029, City of Milpitas)

Planned improvements in study area include:

- Light rail median landscaping along Great Mall Parkway (under the viaduct) (project #2001) as shown in Figure 3-4.
- Montague pedestrian overcrossing at Piper Drive (project #2008, completed)
- Decorative lights and signal improvements along Main Street from Carlo Street to Great Mall Parkway (project #3430)
- Bicycle lanes on Main Street from Weller Lane to Great Mall Parkway (project #4299)
- Street resurfacing of Great Mall Parkway between Montague Expressway and McCandless Drive includes buffered bike lanes (project #4300)
- Street resurfacing of Great Mall Parkway between McCandless Drive and I-880 will include buffered bike lanes (project #4305, completed).

Trail, Pedestrian and Bicycle Master Plan, 2022

The plan is both a vision and an action plan for improving safe and convenient travel using active modes. It evaluated active transportation connectivity and access to daily destinations in Milpitas and to transit stops, with the goal of creating a safe network suitable for all ages and abilities. Biking has been particularly dangerous along Great Mall Parkway between Main Street and Montague Expressway as shown in Figure 3-5.

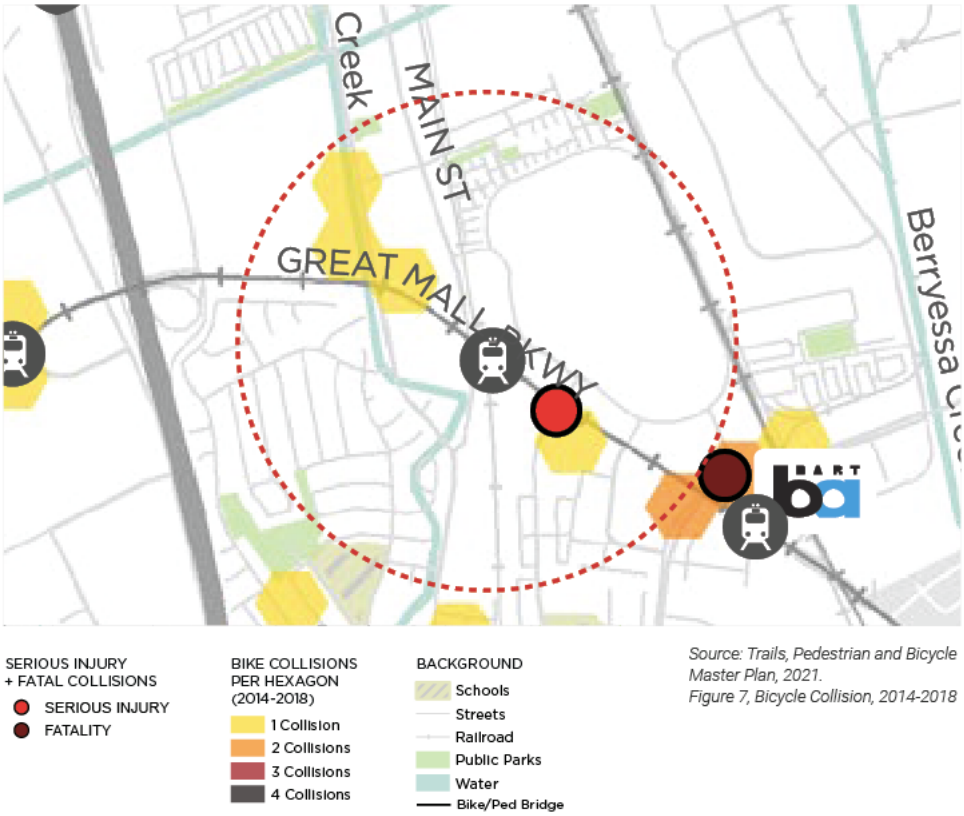


Figure 3-5. Bicycle Collisions, 2014-2018

(source: Trails, Pedestrian and Bicycle Master Plan, 2021)

Key Takeaways

- Single-use commercial and light-industrial land uses in the study area are accessed primarily by roads optimized for high vehicle speeds and volumes that are inherently ill-suited to active transportation.
- The major roadways and intersections between them in the study area were identified as having the highest level of traffic stress, representing significant barriers to active transportation users.
- There is a high need for improvements along Great Mall Parkway and Montague Expressway, but the projects are costly and long-term goals.

- There is also a high need for improvements at the intersections of Great Mall Parkway with Montague Expressway and Main Street, both of which are planned in the near term.

Key Recommendations

- Class I paved shared use paths on Great Mall Parkway (north/east side), Montague Expressway, and S Abel Street would dramatically improve safety and comfort for people accessing the study area by bike
- Class IV cycle track on Great Mall Parkway (south/west side) would provide physical separation from traffic and improved safety
- Class IIB buffered bike lanes on S Main Street would provide minor improvements over the existing experience
- Altogether, these improvements would create a more complete and connected bicycle and pedestrian network that would make it easier and more pleasant to access the VTA station on foot or by bike.

3.1.2 Current Planning by VTA and The County

This review summarizes eight core planning initiatives published by VTA which highlight active mobility and transit service and facilities relevant to Great Mall Station access.

VTA Transit-Oriented Communities (TOC) Policy, 2024

VTA's Transit-Oriented Communities Policy aims to provide guidance for intensifying new development while reducing vehicle miles traveled by increasing mixed-use and mixed-income densities around transit stations. This approach is consistent with MTC's regional growth priorities to balance housing and jobs growth in transit-rich areas. This policy builds upon VTA's existing TOD Portfolio consisting of 28 real estate assets. The TOD development process consists of 5 stages that bring development from the strategic and specific planning stage to developer selection, multi-partner project negotiations and finally implementation. VTA owns a 4-acre parcel adjoining the Great Mall Light Rail Station. The Great Mall Station parcel is listed as a Housing Element Site by the City of Milpitas, a Priority Site by the MTC, and an Opportunity Site in the VTA TOD portfolio. The site is classified as Very High Density Residential (VHDR) in the Milpitas General Plan and zoned for Multi-Family Residential, and a TOD Overlay area in the Metro Specific Plan.

Key Takeaways

- Minimum 25% affordable housing units per project
- Lower parking requirements for TOD development based on place types and proximity to transit
- No minimum parking requirement within a half mile of public transit (AB2097)

VTA Santa Clara Countywide Bicycle Plan, 2018

VTA's Countywide Bicycle Plan envisions a future in which all residents, regardless of age or ability, will be able to use a bicycle to cover their daily transportation needs in a safe, comfortable and convenient manner. Implementation depends on continued collaboration between VTA, county, city staff and local politicians. VTA's role is primarily through funding, policy decisions, technical assistance, and coordination of bicycle improvements in different jurisdictions.

Key Takeaways

- Great Mall Parkway and Montague Expressway are identified as priority countywide bicycle corridors.
- Corridors were selected based on high collision rates, high levels of traffic stress (low perceived safety), proximity to important regional destinations, and a high potential for ridership growth if improved facilities are implemented. These corridors have existing right-of-way widths that may be suitable for physically separated bikeways, and are considered a long term vision.
- These corridors have regional importance, and design should go well above minimum design standards. They should receive priority funding. Specific designs would be determined by local jurisdictions.

2016 Measure B Bicycle & Pedestrian Program, updated 2022

2016 Measure B was adopted to fund nine program areas, of which bicycle and pedestrian improvements are one area. Funds are allocated to local jurisdictions every two years through a grant application process and are subject to oversight and 2016 Measure B branding requirements.

Key Takeaways

- There are three categories of projects: Education & Encouragement, Planning Studies, and Capital Projects.
- Prioritized projects include:
    - those connecting employment, schools and transit
    - those that fill gaps in the existing bicycle/pedestrian network
    - those that make bicycling and walking safer and more convenient

VTA Pedestrian Access to Transit Plan, 2017

This plan evaluates the safety and quality of VTA riders' walk to the transit stop and compliments local planning efforts in order to identify and improve pedestrian access to transit.

Key Takeaways

- The Great Mall VTA Light Rail Station was one of VTA's highest volume bus stops prior to the COVID pandemic. VTA moved many of its frequent and local routes to coincide with the new Milpitas Transit Center and BART station in 2020.
- The plan recommended 165 capital improvement projects in 12 focus areas, whose selection was based on their connectivity, safety, quality, accessibility and activity.
- Although Milpitas has a relatively high number of pedestrian-vehicle collisions, they are less severe than in other cities in the county. Milpitas was therefore not identified as a focus area.

VTA Transit Service Plan, 2025

The VTA 2025 Transit Service Plan focuses on increasing the frequency of high-demand routes, improving school-oriented service, and better aligning schedules with regional partners like Caltrain and BART.

VTA's Transit Service Plan made modest changes to transit service in Milpitas between 2024 and 2025.

Key Takeaways

- Routes with planned changes in Milpitas are route 20, route 44, route 47, route 66 and route 77. Routes 66 serves the study area with adjacent routes 77, 20, and 60 along Montague Expressway.
- Route 20 runs later at night (7:30 pm to 8:30 pm)
- Route 44 is consolidated with route 47
- Route 47 extended to Tasman and Alder, and increased Sunday frequency (40 min vs 60 min)
- Route 66 stops at the Great Mall on Great Mall Parkway, and gets frequency changes during shoulder periods to match route 68
- Route 77 loses one northbound evening trip.

VTA Bus Stop and Passenger Facilities Design Criteria and Standards, 2020

This document provides uniform criteria and standards for the design and construction of bus-related facilities and amenities in the VTA transit service area. These criteria and standards are intended to provide specific design considerations for transit facilities. It provides criteria, dimensions, and typical designs for bus stops, turnouts, pedestrian access, shelters, benches, and other infrastructure associated with bus stops.

VTA provides four categories of bus stops, depending on location and ridership:

- Basic bus stop: locations with fewer than 40 boardings per day. Typically, only stop sign and optional bench.
- Core bus stop: at locations with between 40 and 200 boardings per day. Typically, they have seating and a small shelter at higher ridership locations. Some locations have additional seating, trash cans, or bike parking.
- Major bus stop: more than 200 boardings per day. These stops get full amenities, including seating, shelters, transit information, trash cans and bicycle racks.
- Community designation bus stop: these stops are major bus stops located near special destinations such as civic buildings, museums, libraries or parks.

Santa Clara County Active Transportation Plan, 2025

The Santa Clara County Active Transportation Plan evaluates county-controlled expressways and roadways in the unincorporated areas of the County to identify the priority areas where improvements can benefit the greatest number of residents. Most of Milpitas has a medium connectivity ranking – most streets have sidewalks and pedestrian crossings, and the bicycle network is reasonably well built out with a few notable gaps. The priority issue in Milpitas is the lack of separate bike facilities on Montague Expressway. Addressing this gap could enable a significant amount of growth in regional bicycle trips. The intersections of Great Mall Parkway at Main Street and Great Mall Parkway at Montague Expressway are challenging for people outside a car and discourages increased use of active transportation. The plan references the Federal Highway Administration (FHWA) bikeway selection guide (see Figure 3-6), which shows that physically separated facilities such as Class I or Class IV are most appropriate for Great Mall Parkway and Montague Expressway due to the speed and volume of traffic.

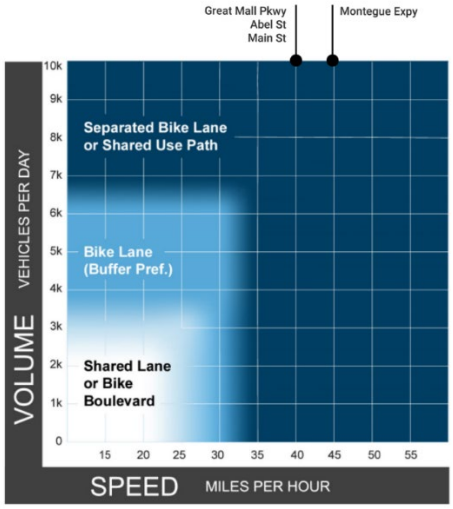


Figure 3-6. Urban Roadways

(source: Santa Clara County Active Transportation Plan)

Project recommendations in Milpitas:

- Class I shared use path along Montague Expressway is a regionally important connection, and would also improve local access on foot or by bike

3.1.3 Planning by BART and MTC

This review summarizes three key station area planning initiatives by BART and the Metropolitan Transportation Commission (MTC) that highlight safety and TOD development standards relevant to Great Mall Station access.

Safe Trips to BART: Action Plan for Safer Roadways, 2025

The Milpitas BART station lies just outside the study area, but is included because BART plays a tremendously important role in regional transportation. Station access surrounding BART can be challenging due to navigating the scale of public streets in the study area, particularly in auto-oriented areas where the streets surrounding stations have more than twice the fatal and serious injury crashes per mile than those further away because the BART system is located near high-risk roadways. The primary cause is high speeds – more than half the streets surrounding BART stations have 40+ mph speed limits (Great Mall Parkway is 40 mph and Montague Expressway is 45 mph). The goal of Safe Trips to BART is to identify investments that could reduce or eliminate traffic deaths and severe injuries, primarily transportation infrastructure improvements on public roadways found on the High Injury Network around BART Station Study Areas. Public agencies can get public support for right-sizing streets by highlighting BART's service as another mobility option. The Plan includes a Roadway Safety Toolbox based on the FHWA's Safe Systems Approach and best practices to offer over 30 tools for designing roadway safety improvements. Milpitas is not bound by BART's recommendations, but the approach would benefit multimodal transportation around BART and equally in the study area around the VTA Great Mall station.

BART-related Capital Improvement Projects:

BART's adopted capital budget for 2025 and 2026 includes budget for multimodal access improvements ($6,692,531), ADA accessibility improvements ($5,263,663), and bicycle stair channels ($707,752). The budget doesn't mention projects in Milpitas specifically.

MTC Transit-Oriented Communities (TOC) Policy, 2025

MTC's TOC Policy was adopted in 2022 to establish transit service-based planning and funding priorities to increase employment and housing densities, especially affordable housing, in the half-mile area surrounding existing and planned high-quality transit stops. The policy outlines four key elements for TOC policy consistency for station access: the adoption of a complete streets policy, active transportation projects that prioritize "all ages and abilities", the completion of an access gap analysis, and the coordination of a mobility hub. This policy is built from the Sustainable Communities Strategy to coordinate land use and transportation planning toward GHG-reduction targets. A variety of programmatic regional land use categorization, including the Priority Development Area (PDA) Program and the Plan Bay Area 2050 Growth Geographies, set the precedent for establishing TOD as the primary driver of regional growth. Jurisdictions are encouraged to adopt a TOC Policy by the end of 2026 to be eligible for the next cycle of One Bay Area Grant (OBAG) funding. TOC policies should prioritize bus transit, active transportation, and shared mobility access to and from transit stops emphasizing connectivity to Equity Priority Communities.

Key Takeaways

- Establishes a 4-tiered transit service-based land-use classification system
- 380 TOCs identified regionwide
- Santa Clara County TOCs surround Caltrain, BART, and largely VTA Light Rail Stations
- Great Mall study area includes the Great Mall station (Tier 3) and Milpitas BART station (Tier 2) areas as two of three TOCs in the City of Milpitas

3.2 Existing Data Review

3.2.1 Demographic Summary

The Great Mall Station study area has a population of 11,153 residents across 3,908 households, resulting in an average household size of 2.83 persons per household. This is lower than the City of Milpitas' average of 3.15 and generally consistent with the Santa Clara County average of 2.86, as shown in Figure 3-7.

The median age is 33.9, which suggests a predominantly young population.

The demographic and socioeconomic profile of the study area reveals a community that is affluent, highly educated, and predominantly composed of young, working-age professionals highly influencing local economic activity, housing demand and educational services in the area.

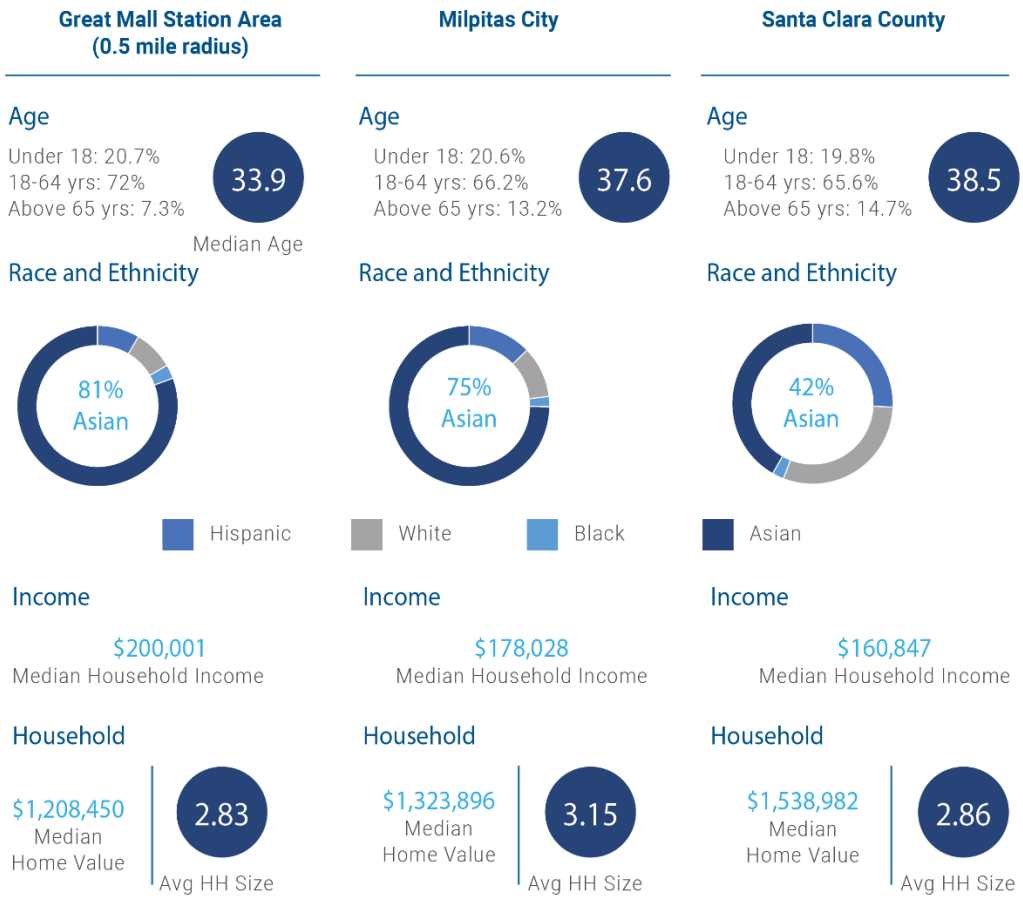


Figure 3-7. Comparative Demographic Profile

Overview of key demographic characteristics of the study area compared with citywide and countywide populations (source: ACS 2023 5-Year Estimates; Esri Updated Demographics, 2025)

The Diversity Index, as defined by Esri and the U.S. Census Bureau, represents the probability that two individuals chosen at random will be from different racial or ethnic groups. The diversity index stands at 46, suggesting a moderate level of diversity compared to the regional diversity. The racial composition is predominantly Asian, reflecting a more homogenous population in the study area.

Education levels in the area are also notably elevated. As Shown in Figure 3-8, about 77.5% of residents possess a bachelor's degree, graduate, or professional degree, underscoring the presence of a highly skilled and educated workforce.

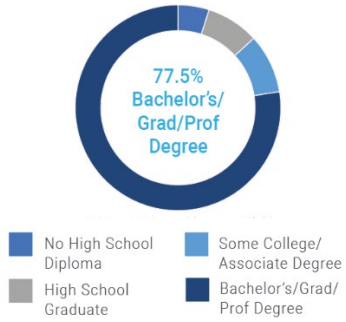


Figure 3-8. Educational Attainment of the Population within the study area

(source: ACS 2023 5-Year Estimates; Esri Updated Demographics, 2025)

From a labor market perspective, the study area is characterized by a highly educated and professionally oriented workforce. Approximately 85.1% of employed residents work in white-collar occupations, based on U.S. Census Bureau American Community Survey (ACS) occupational classifications, including management, business, financial, professional, and related occupations. This share is significantly higher than both city and county levels, as shown in Figure 3-9. The unemployment rate is 4.3%, lower than regional averages, indicating a strong local labor market.

Additionally, 72% of the population falls within the 18 to 64 age range, reinforcing the narrative of a working-age, economically active community.

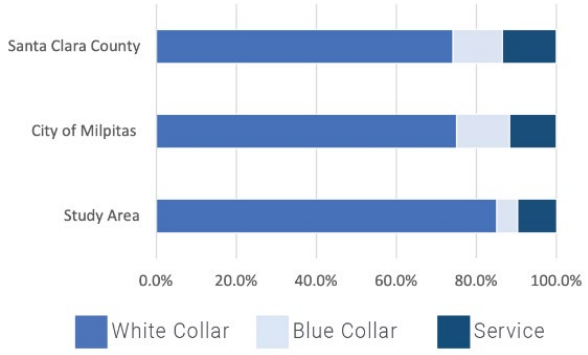


Figure 3-9. Employment by Job Type: Comparison across the study area, San José, and Santa Clara County

(source: ACS 2023 5-Year Estimates; Esri Updated Demographics, 2025)

Household income levels in the area are notably high, with a median household income of $200,001, substantially exceeding both city and county averages. Correspondingly, the median home value is $1,208,450, reflecting a high-cost housing market consistent with the affluence of the residents.

As shown in Figure 3-10, most of the housing stock in the study area was built between 2010-2019 which is relatively newly developed as compared to the city and region.

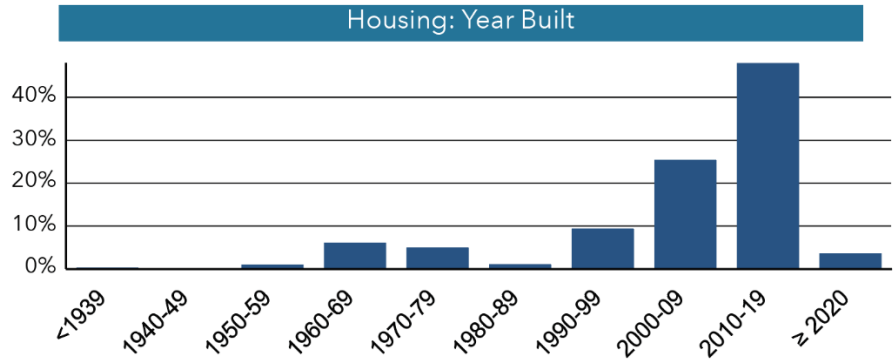


Figure 3-10. Housing Stock by Year Built within the study area

(source: ACS 2023 5-Year Estimates; Esri Updated Demographics, 2025)

Population & Employment Density

The southern portion of the study area accommodates the majority of the residential population, reflecting a higher concentration of housing and urban activity in that zone. This area features a diverse mix of housing types, including rental multifamily units, as well as condominiums and townhomes, available both for rent and ownership. The variety in housing options contributes to a dynamic and accessible residential environment, attracting a broad range of household types, from young professionals to small families.

A notable population density hotspot is the Great Mall area, which, despite a smaller resident base, experiences a significantly higher daytime population. As a regional commercial destination, the Great Mall draws thousands of visitors and employees daily. The mall alone employs approximately 3,500 people, including seasonal workers, contributing to a robust daily influx that exceeds the local residential presence.

In addition to retail activity, the Great Mall serves as a community and transportation hub. It also hosts outdoor community events and operates under agreements with a local farmers market. The site is well-equipped for high traffic volumes, offering approximately 6,500 parking spaces, including a limited number of paid spots near the entrances and reserved delivery areas to support logistical operations.

Overall, the population density reflects the dual residential-commercial nature of the study area, with southern neighborhoods driving residential density and the Great Mall area intensifying daytime activity through commerce and employment.

Key Takeaways

- The study area is home to a predominantly working-age, high-income, and highly educated population.
- Despite modest residential numbers, the Great Mall generates significant daily traffic due to its role as a regional shopping and employment hub (4,000 mall workers plus thousands of visitors). This results in a substantial daytime population increase that isn't captured in residential statistics alone.
- Transit planning must account for high variability in usage patterns—providing robust connections during weekends and midday hours, not just rush hour. Additionally, pedestrian and shuttle infrastructure like Milpitas SMART (Simple Mobile Access to Reliable Transit) should support safe and seamless circulation between transit nodes and the commercial core.

3.2.2 Transit Network

Figure 3-11. Great Mall Transit Service

(source: VTA)

The TOD site was previously VTA's Great Mall Light Rail Station. When BART opened the Milpitas station half a mile away (just outside the study area), VTA moved many of its frequent and local routes adjacent to the new BART station in order to provide better intermodal transfers. The key transit routes serving the project area are:

- BART Green line (Daly City – Berryessa) and orange line (Richmond – Berryessa). The BART station is on Montague Expressway at Great Mall Parkway
- VTA Orange line (Mountain View – Alum Rock). There are two stops in the study area, adjacent to the BART station (connected by a pedestrian bridge), and at Great Mall (Main Street). Off-peak headways of 30 minutes, most of the day 15 minutes.
- VTA bus routes, Local Route 47 (Milpitas BART – Alder Station via McCarthy Ranch, 30-minute headways), Frequent Route 66 (North Milpitas – Santa Teresa Station, ~15-minute headways), Express 104 (Milpitas BART – Stanford Research Park, two morning departures and two afternoon arrivals daily), and 203 (Civic Center – Baypointe – Alum Rock, two-night departures).
- SMART: Milpitas operates an on-demand shuttle service, Simple Mobile Access to Reliable Transit (SMART). It is a first- and last-mile service that offers the convenience of ride-hail services such as Uber and Lyft but is priced like public transit. It is available anywhere within city limits and is intended to offer a convenient option for those not well-served by other public transit options.

BART and the VTA Orange line are important regional connections. BART connects to the major cities in the northern Bay Area and two regional airports and is planned to connect to San Jose Diridon Station once BART Silicon Valley Phase 2 is completed. The Orange line connects the residential areas in East San Jose to regional employers in Santa Clara, Sunnyvale and Mountain View, as well as regional rail services from BART, Caltrain and ACE, and regional draws such as Levi's Stadium.

3.2.3 Service, Ridership, Stop Amenities

The Great Mall Light Rail Station is the largest transit stop in the study area. It is on an elevated platform in the median of Great Mall Parkway. The Milpitas Transit Center with BART station is also an important regional transit stop, but it lies just outside the study area. There are multiple bus stops within the study area as well, as detailed in Table 3-2.

Stop/Station	Amenities	Headways	Ridership		
			Weekday	Saturday	Sunday
Milpitas BART Station	Bathrooms Elevator to platform Bench seating Shelters Real-time digital display	Peak: 7-13 minutes Off-peak: 20 minutes	1,277 average weekday, January 2026		
Great Mall Station (light rail)	Elevator to platform Bench seating Shelters Real-time digital display	Peak: 7-13 minutes Off-peak: 20 minutes	On: 135 Off: 262	On: 122 Off: 221	On: 137 Off: 275
Great Mall Pkwy/Mustang Dr (bus)	Stop sign, shelter, bench, trash can	47: ~30 minutes 66: ~15 minutes	On: 52 Off: 30	On: 62 Off: 28	On: 87 Off: 32
Great Mall Pkwy/Fairlane Dr (bus)	Stop sign, bench	47: ~30 minutes 66: ~15 minutes	On: 33 Off: 15	On: 20 Off: 13	On: 20 Off: 10
Great Mall Pkwy/McCandless Dr (bus)	Stop sign, small bench	47: ~30 minutes 66: ~15 minutes	On: 20 Off: 132	On: 21 Off: 128	On: 25 Off: 127
S Main St/Great Mall Pkwy (bus)	Stop sign, shelter, bench, trash can	47: ~30 minutes 66: ~15 minutes	On: 74 Off: 6	On: 61 Off: 3	On: 50 Off: 5
S Main St/Great Mall Pkwy (bus)	Stop sign	47: ~30 minutes 66: ~15 minutes	On: 38 Off: 8	On: 19 Off: 7	On: 19 Off: 6

Table 3-2. Transit Ridership and Stop Amenities in Study Area

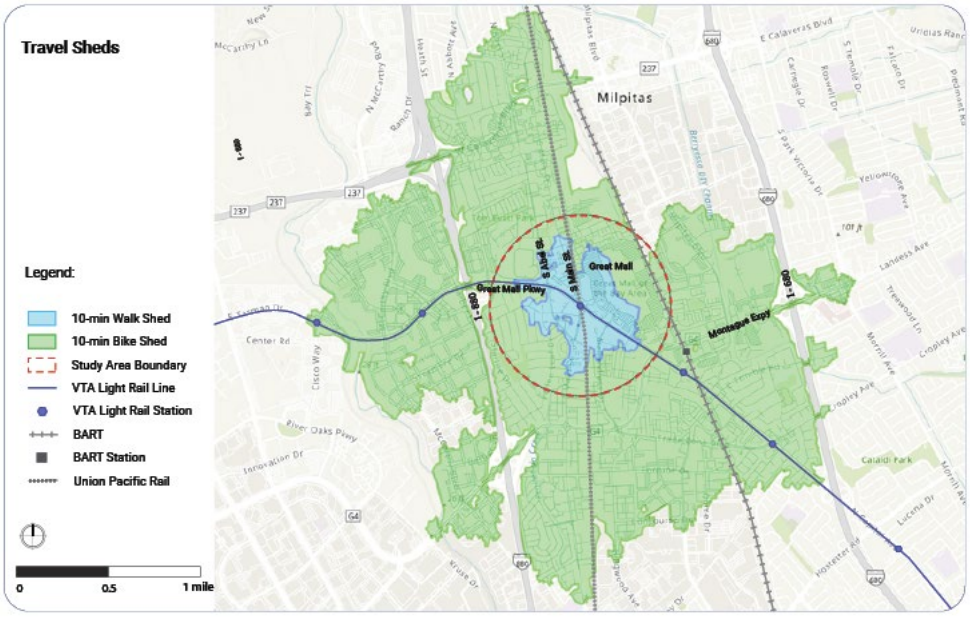
(source: VTA and BART)

Key Takeaways

- Transit ridership to the Great Mall stop is lower than pre-pandemic. In 2019, the Great Mall Light Rail Station saw average daily ridership of over 900 and average weekend ridership of almost 800, compared to just over 400 on weekdays and around 300 on weekends in 2024. Some of this ridership may have moved to the new Milpitas Transit Center with BART station when it opened in 2020.
- The bus stop at Great Mall Parkway and McCandless (Fairlane) Drive (adjacent to the project site, the old VTA bus station) is 500 feet from the light rail station. This makes connections between bus and light rail slower (though many making the connection might do so at the new bus station at Milpitas Transit Center with BART Station).

3.2.4 Bike-Ped Network

Pedestrian Network



Source: ESRI Arc GIS

Figure 3-12.Travel Sheds

(source: ESRI Arc GIS)

Most streets in the study area have sidewalks. The exceptions are the west side of Great Mall Parkway between McCandless Drive and Montague Expressway, and much of Great Mall Drive (around perimeter of the Great Mall parking lot).

All major intersections have pedestrian signals and mark crosswalks. However, the intersections at Great Mall Parkway and Montague Expressway, Main Street, and S Abel Street do not have high-visibility crosswalks (only parallel lines). These are harder for drivers to see and typically have lower rates of drivers yielding to pedestrians. In addition, these three intersections all have slip lanes for right-turning vehicles. Slip lanes

in general increase vehicle turning speed, increasing risk to people walking. The geometry of these slip lanes also makes it more challenging for people driving to see people walking while trying to merge with traffic.

The Travel Shed map (Figure 3-12) shows a blue "walkshed" area accessible to people walking within a 10-minute walk of the VTA Great Mall station. It uses a walking speed of 3.5 feet/second, as recommended by Manual on Uniform Traffic Control Devices (MUTCD) to include a range of people including older pedestrians or those with strollers.

The Lower Penitencia Creek Trail provides a pleasant car-free route for people walking or bicycling from the residential areas west of Great Mall Parkway. It connects to the Great Mall VTA station via the crosswalk at S Main Street. There is limited wayfinding, so people may not be aware that this traffic-free route is available.

Key Takeaways

- The study area is dominated by high-volume, high-speed arterials that act as barriers to people walking and bicycling. Particularly Great Mall Parkway, Montague Expressway, S Main Street and S Abel Street.
- The study area has fairly complete pedestrian infrastructure, though crossings are very long, and it is not pleasant to walk along the arterial streets due to the noise and lack of visual interest.
- Additional challenges include low density land uses and significant amounts of surface parking that lead to long walking distances between destinations.
- There is a lack of wayfinding signage between walking destinations such as transit stops, retail, and community amenities such as the Lower Penitencia Creek Trail.

3.2.5 Bicycle Network

Most major streets in the study area include Class II (painted stripes) on-street bicycle lanes, including Great Mall Parkway, McCandless Drive, S Main Street, and S Abel Street. Montague Expressway has no bicycle facilities and was identified in the VTA Santa Clara County Countywide Bicycle Plan (2018) as a regionally important missing connection with a high potential for future ridership if appropriate facilities were added.

Given traffic volumes and speeds, Class II bicycle lanes provide a low subjective feeling of safety. All the major streets in the study area were found to have the highest level of traffic stress (both VTA Santa Clara County Countywide Bicycle Plan, and the Milpitas Trail, Pedestrian and Bicycle Master Plan) and this was borne out during site visits as most cyclists observed in the project area were riding on sidewalks.

The bike shed map (Figure 3-12) shows the areas reachable within a 10-minute ride of the VTA Great Mall light rail stop. The model does not account for the lack of facilities, so the map indicates future potential more than existing capability. If the City

implements the recommended Class IV cycle tracks on Great Mall Parkway and Class I shared use paved trails on Montague Expressway and S Abel Street (as recommended in the Milpitas Trail, Pedestrian and Bicycle Master Plan), then the study area has the potential for easy bicycle access, given its flat topography and year-round mild weather.

3.2.6 Bicycle Access Conditions

There is ample secure bicycle storage at the station in the form of lockable bike boxes for long-term storage and bicycle racks for shorter stays. Bicycles are allowed on the light rail, and bicycle access to the station is facilitated by an elevator from sidewalk level to the platform on the east side of Great Mall Parkway. There is no signage at street level indicating the station entrance. There is no curb cut for bicycles at the station entrance – bicyclists have to use the nearest pedestrian curb ramp. People arriving from the west side of Great Mall Parkway must cross as pedestrians to access the elevators.

Key Takeaways

- There is ample secure storage at the station and easy access to the platform via elevators from the east side.
- Access from the west side is lacking, and bicyclists must cross to the median or east side to use the elevator.
- Signage and wayfinding can be improved – both for the station and entrances, and to nearby destinations.
- There is no curb cut for bicycle access.

3.2.7 Pedestrian Access Conditions

People accessing the Great Mall Light Rail Station on foot can either use stairs or an elevator from the sidewalk on the east side, or cross from the west side to the median and access stairs to the platform there. For people arriving by bicycle, there is very limited signage indicating the presence of the station from street level. There is also no signage indicating nearby destinations such as the Great Mall.

At the time of the site visit the elevators were out of order. There was no indication of this at street level, though the information screens on the platform cycled between train arrival times and a message about the elevators.

Key Takeaways

- Good pedestrian access exists from the east sidewalk. From the west people must cross into the median for stairs or elevator access.
- Signage and wayfinding can be improved – both for the station and entrances, and to nearby destinations.

3.2.8 Bicycle and Pedestrian Collisions

There were seven collisions involving pedestrians and 11 collisions involving cyclists in the previous five years (2020-2024) in the study area as shown in Table 3-3. There were no fatalities, but a range of injuries from complaints of pain to severe injury. As can be seen from the bicycle and pedestrian collision map (Figure 3-13), most of the collisions occurred at intersections. Most of the collisions were caused by people driving rear-ending, sideswiping or broadsiding people walking or bicycling.

Figure 3-13. Pedestrian and Bicycle Collisions

(source: Statewide Integrated Traffic Reporting System)

Party	Crash Severity			
	Fatal	Injury (severe)	Injury (other visible)	Injury (complaint of pain)
Pedestrians	0	1	3	2
Bicyclist	0	1	7	3

Table 3-3. Injury Crash Map

(source: Citywide Travel Safety Plan, 2024)

3.2.9 Vehicle Network

The project area is dominated by wide, high-speed roads with no or minimal infrastructure for other transportation modes. The main routes through the project area are Montague Expressway and Great Mall Parkway (north-south), which both provide regional connections through the adjacent communities, as shown in Table 3-4.

Classification	Street	Jurisdiction	Lanes	Traffic Volume (ADT)
Major Arterials	Montague Expressway	Santa Clara County	8	51,360 – 55,070
Minor Arterials	Great Mall Parkway	Milpitas	6	31,367
	Abel Street		4	Not Available
	Main Street		4	19,850
Collector/ Local Streets	All Others	Milpitas	Varies	N/A
Private Streets	Great Mall Drive Fairlane Drive Mustang Drive Falcon Drive Comet Drive Great Mall	Milpitas	Varies	N/A

Table 3-4. Study Area Streets Classification

Most streets in the study area are under the jurisdiction of the City of Milpitas, except Montague Expressway which is maintained by Santa Clara County and some private streets. Great Mall Drive and all the driveways to the Great Mall that are privately owned by the Great Mall. Note that according to the parcel map, the border between public and private streets lies where the Great Mall driveways meet Great Mall Parkway.

Great Mall Parkway is a truck route, which means that street design elements must accommodate larger vehicles – typically through wider lanes and larger turning radii.

These design elements typically allow smaller vehicles to drive faster, decreasing safety for all users.

Union Pacific operates an active freight railway line that crosses Great Mall Parkway at S Main Street. When trains go by, traffic is held for an extended red light.

Figure 3-14. Vehicle Collisions, 2020-2024

(source: Statewide Integrated Traffic Reporting System (SWITRS)

The updated collision data from 2020-2024 shows that collisions were primarily clustered at the intersections between arterial streets and along arterial streets. The largest number of crashes occurred at the intersections of Great Mall Parkway with Montague Expressway, McCandless Drive, S Main Street and S Abel Street. However, clusters of crashes also occurred at intersections on other streets such as S Main Street and S Abel street. The primary cause of collisions is street design favoring speed over the safety of all user groups. Contributing driver behaviors are covered in the Citywide Travel Safety Plan (2024). See collision map above, or the section on the Travel Safety Plan.

3.3 Walk Audit Findings

Date: Thursday, March 13, 2025

Time: 4:00 PM – 6:00 PM

Starting Point: Starbucks (Across from Great Mall Transit Station Park & Ride Lot)

As part of the Phase 1 Community Engagement for the Great Mall Station Access Study, VTA, Forward City Labs (FCL), and Alta conducted an in-person walk audit to assess pedestrian and bicycle access conditions, safety, and amenities within a half-mile radius of the Great Mall Transit Station. The audit aimed to gather direct observations and community feedback on barriers and opportunities for improving station access and connectivity. Two distinct routes were selected to cover different travel patterns and intersections within the study area:

- **Route A:** Focused on the east side of Great Mall Parkway toward Montague Expressway.
- **Route B:** Focused on the west side, along South Main Street toward South Abel Street.

Each route covered approximately one mile and included key intersections, crosswalks, and connection points frequently used by pedestrians, cyclists, and transit riders.

The walk audit was attended by approximately 18 diverse group of participants, including members of local Community-Based Organizations (CBOs), youth ambassadors, senior community members, Milpitas Unified School District representatives, VTA staff, Consultant teams (FCL & Alta), and City of Milpitas representatives from the Public Works Department.

3.3.1 Key Themes and Observations

- **Wayfinding and Signage:** Participants noted limited directional signage to and from the station, causing confusion, particularly for first-time users. The lack of clear wayfinding elements contributed to disorientation and “arrival anxiety” when reaching the station area.
- **Physical Conditions:** Sidewalks were found to be inconsistent in quality, with cracked or uneven surfaces that posed challenges, especially for seniors and those with mobility issues. Crosswalk visibility was poor at key intersections, with some crosswalks being faded or poorly marked.
- **Crosswalk Location and Design:** Several crosswalks were located far from logical pedestrian desire lines, encouraging people to jaywalk. The lack of pedestrian refuge islands or bulb-outs at wider crossings made these areas feel unsafe, particularly during peak traffic hours.
- **Public Art and Placemaking Opportunities:** Participants suggested incorporating public art, such as etched designs or murals, that reflect local history and cultural

diversity. These additions could create a more welcoming and community-oriented space.

- **Safety Concerns:** Poor lighting in certain areas, especially along walking routes in the evening, raised safety concerns. Additionally, high vehicle speeds on nearby roads contributed to a sense of danger for pedestrians and cyclists.
- **Bicycle Infrastructure:** Incomplete or unclear bike lanes were noted, along with a need for better connections between existing bike facilities and the station itself.
- **Amenities at the Station:** Attendees highlighted the lack of basic amenities, such as shaded seating, drinking fountains, and real-time transit information displays at the station. Bicycle parking options were also limited and not easily visible or secure.

3.3.2 Top Areas of Improvement

- Enhanced wayfinding and signage, especially around the station and connecting areas
- Improvements to bike and pedestrian infrastructure, including expanded bike lanes, more visible crosswalks, and secured bike parking
- Greater emphasis on beautification, public art, and placemaking
- Improved safety measures, including better lighting, pedestrian refuge islands, and better visibility at intersections
- More amenities at the transit station, such as weather shelters, real-time transit status displays, and improved bike facilities
- Work with Great Mall to create accessibility between the proposed development at Great Mall Transit Station and mall
- Work with Union Pacific freight railroad to improve visual/auditory experience around tracks

4 Future Conditions

4.1 Great Mall TOD Preliminary Design

In the summer of 2025, VTA selected East Bay Asian Local Development Corporation (EBALDC) as the affordable housing developer for the 4-acre former bus terminal TOD site adjacent to the Great Mall Station. The proposed TOD will include 389 affordable mixed-income units available to low- and very low-income households earning 30-80% AMI. The development is planned for two phases of family housing and one phase of senior housing.

The TOD will include 16,300 square feet of commercial space, and incorporate community benefits with spaces for childcare, a youth center, community-focused retail, and an outdoor plaza with a patio, café, and public bike facilities.

Great Mall TOD Site Rendering

(source: EBALDC/Mithun)

Great Mall TOD Site Plaza

(source: EBALDC/Mithun)

4.2 Methodology

To determine the appropriate vehicle trip and parking generation rates for TOD site development, Alta used various data sources including the Institute of Traffic Engineers (ITE) "Trip Generation Manual (11th Edition)", ITE "Parking Generation Manual (6th Edition)". The ITE Trip Generation Manual and Parking Generation Manual provide observed vehicle trip and parking generation rates for specific land use types and location settings from samples collected across the country.

As an additional resource, Alta referenced GreenTRIP Connect, a web-based tool developed by the Center for Neighborhood Technology, designed to assist urban planners and developers in estimating the impact of various transportation and land use strategies on parking demand, vehicle miles traveled (VMT), and greenhouse gas (GHG) emissions. The tool provides statistically based reductions in VMT, particularly useful for residential projects in any context area. The tool outputs VMT and parking demand using location-specific data, including surrounding land use and transportation characteristics, parking spaces/charges, presence of affordable housing/rents, and offers of residential transit passes, carshare, and bikeshare. The tool is primarily applicable to residential projects and can be used in various context areas, offering cost savings, enhanced convenience, and supporting sustainable development. The model

leverages GreenTRIP's extensive residential parking database that includes observed parking occupancy data for over 80 sites across the Bay Area.

According to the GreenTRIP Connect tool, providing at least 30 percent affordable housing can reduce project-generated vehicle trips by approximately 4–5 percent. Additionally, implementing an extensive Transportation Demand Management (TDM) program can further reduce vehicle trips by approximately 40–42 percent.

4.2.1 Scenario Assumptions

To understand the range of potential future access needs, three TOD test-fit scenarios were assessed to determine the various vehicle trip and parking generation impacts on local access. Table 4-1 summarizes the anticipated land uses for the three project scenarios. Each scenario includes a different residential unit mix and onsite parking ratio (spaces per unit).

Land Use	Scenario		
	One	Two	Three
Residential (units)	336	378	262
1br	*169*	*192*	*133*
2br	*90*	*91*	*63*
3br	*77*	*95*	*66*
Community Space (square feet)	1,600	1,600	1,600
Parking Supply (spaces)	195	100	100
VTA Parking Removal (spaces)	-93	-93	-93

Table 4-1. Project Scenario Land Use Assumptions

(source: Santa Clara Valley Transportation Authority (VTA), 2025)

4.2.2 Trip Generation Rates

To estimate new vehicle trips generated by the three project scenarios, Alta used ITE land use code 221 - Multifamily Housing (Mid-Rise) close to rail transit in a general urban/suburban setting. This land use includes apartments and condominiums located in a building that has between 4 and 10 floors of living space. A site is considered close to rail transit if the walking distance between the building entrance and the closest rail station entrance is ½ mile or less. Table 4-2 summarizes the average ITE trip generation rates for the proposed residential land use.

ITE Land Use	Time Period	Rate	Inbound	Outbound
221 - Multifamily (Mid-Rise) Housing[1]	Daily	4.75	50%	50%
	AM Peak Hour (Adj Traffic)	0.32	36%	64%
	PM Peak Hour (Adj Traffic)	0.29	65%	35%

Table 4-2. ITE Trip Generation Rates

(source: ITE Trip Generation Manual, 11th Edition)

Notes:

1. *Represents average trip generation rates for housing near rail transit in a General Urban / Suburban setting.*

4.2.3 Parking Generation Rates

To estimate new vehicle parking generated by the three TOD test-fit scenarios, Alta used ITE land use codes 218 – Multifamily Housing (One Bedroom Mid-Rise) and 221 – Multifamily Housing (Two Bedroom Mid-Rise). Rates for sites located close to rail transit in a general urban / suburban setting were used for both categories. Table 4-3 shows the average ITE parking generation rates for the proposed project.

ITE Land Use	Occupied Spaces per Unit
218 - Multifamily Housing - 1 BR (Mid-Rise)[1]	0.61
221 - Multifamily Housing - 2BR+ (Mid-Rise) [1]	1.14

Table 4-3. ITE Parking Generation Rates

(source: ITE Parking Generation Manual, 6th Edition)

[1] The Institute of Transportation Engineers (ITE) defines a General Urban/Suburban setting as an area where nearly all trips are made by personal or commercial vehicles. These areas are typically developed at low to medium density with a mix of residential and commercial uses. Commercial land uses are often concentrated at intersections or along corridors, surrounded by low-density residential development. Buildings are usually placed behind or surrounded by parking. The mixing of land uses is based on proximity rather than function, with retail and services often targeting regional clientele and motorists. Limited pedestrian, bicycling, and transit facilities restrict non-vehicle travel.

Notes:

1. *Represents average trip generation rates for housing near rail transit in a General Urban / Suburban setting.*

The GreenTRIP Connect tool considers the project site location, unit count, and parking supply when estimating parking demand, and thus each project scenario has a slightly different peak parking rate. Table 4-4 summarizes the GreenTRIP Connect parking generation estimates for the three project scenarios. These rates do not factor any additional parking demand reductions related to affordable housing, parking pricing, or any other TDM measures.

Rate Assumptions	Scenario		
	A	B	C
MTC/ABAG Regional Average	1.18	1.18	1.18
If built on selected parcel	0.87	0.62	0.73
with TDM Strategies	0.7	0.45	0.55

Table 4-4. GreenTRIP Connect Parking Generation Rates

The GreenTRIP Connect parking rates demonstrate how different parking provisions influence residential parking demand. The MTC/ABAG Regional Average serves as a baseline, with a consistent parking rate of 1.18 across Scenarios A, B, and C. When applied to the specific project site—characterized by access to high-quality transit—parking rates decrease to 0.87 (Scenario A), 0.62 (Scenario B), and 0.73 (Scenario C), reflecting reduced demand. Further reductions occur with the implementation of Transportation Demand Management (TDM) strategies, lowering rates to 0.70, 0.45, and 0.55 for Scenarios A, B, and C, respectively. These findings underscore the effectiveness of TDM in promoting sustainable travel behavior and reducing reliance on private vehicles.

The variation in parking demand across scenarios also highlights how adjusting the parking supply ratio can significantly influence on-site parking needs. This reflects the concept of **induced demand**, the idea that increasing parking availability can actually lead to higher parking demand. When parking is perceived as ample and convenient, more people are likely to drive, which increases single-occupancy vehicle trips and overall vehicle miles traveled (VMT). In essence, “if you build it, they will come.” Conversely, limiting parking supply, especially when paired with access to high-quality transit and TDM strategies, can help curb car dependency and promote more sustainable travel behavior.

4.3 Trip Generation Estimates

Table 4-5 summarize the average ITE vehicle trip generation estimates for the three projects scenarios, which factors the project site's proximity to high-quality transit (i.e., within ½ mile of rail transit) and location in a general urban / suburban setting.

Scenario	Size (units)	Daily	AM Peak Hour			PM Peak Hour		
			Inbound	Outbound	Total	Inbound	Outbound	Total
Multifamily (Mid-Rise) Housing - Scenario A	336	1,596	39	69	108	63	34	97
Multifamily (Mid-Rise) Housing - Scenario B	378	1,796	44	77	121	71	38	110
Multifamily (Mid-Rise) Housing - Scenario C	262	1,245	30	54	84	49	27	76

Table 4-5. Summary of ITE Vehicle Trip Generation Estimates

(source: ITE Trip Generation Manual, 11th Edition)

Notes:

1. *Represents average trip generation rates for housing close to rail transit in a General Urban / Suburban setting.*

Table 4-5 compares the expected vehicle trips generated by each of the three scenarios with various GreenTRIP VMT reduction estimates applied, including affordable housing and implementation of a comprehensive TDM program.

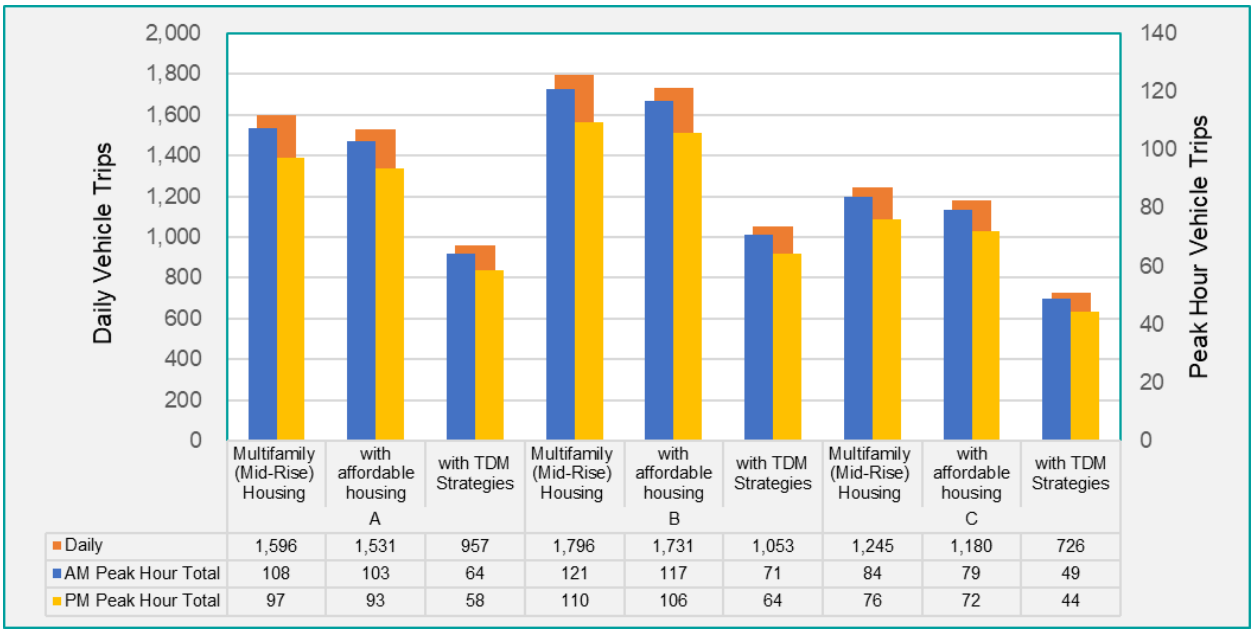


Figure 4-1. Summary of ITE Trip Generation Estimates with GreenTRIP Reductions

(source: ITE Trip Generation Manual, 11th Edition)

Notes:

1. *Represents average trip generation rates for housing close to rail transit in a General Urban / Suburban setting.*

Scenario B would generate the highest number of daily vehicle trips—1,796 trips—due to having the largest unit count, which is the primary factor in ITE trip generation estimates. This is followed by Scenario A with 1,596 daily trips, and Scenario C with 1,245 daily trips. A similar trend is observed in AM and PM peak hour vehicle trip generation. Scenario B again leads with 121 AM and 110 PM peak hour trips, followed by Scenario A with 108 AM and 97 PM trips. Scenario C generates the fewest, with 84 AM and 76 PM peak hour trips. These rates represent the project scenarios if built at the proposed project site with no additional mitigations.

In contrast, if the TOD site includes at least 30 percent affordable housing, it can reduce VMT and vehicle trips by 4-5 percent. Additionally, if the TOD site implements a comprehensive Transportation Demand Management (TDM) program, it can reduce VMT and vehicle trips by 40-42 percent.

4.4 Parking Generation Estimates

Table 4-6 summarize the average ITE parking generation estimates for the three projects scenarios, which factors the project sites proximity to high-quality transit (i.e., within ½ mile of rail transit) and location in a general urban / suburban setting.

Scenario	Size (units)	Rate[1]	Occupied Spaces	Parking Supply	Surplus / (Deficit)
A	*336*	*0.87*	*293*	*195*	*(98)*
B	*378*	*0.87*	*329*	*100*	*(229)*
C	*262*	*0.87*	*228*	*100*	*(128)*

Table 4-6. Summary of ITE Parking Generation Estimates

(source: ITE Parking Generation Manual, 6th Edition)

Notes:

1. *Represents average trip generation rates for housing close to rail transit in a General Urban / Suburban setting.*

All three scenarios are expected to generate parking deficits for between 98 and 229 spaces during the evening / overnight period when residential demand is highest. However, these estimates do not account for the proposed on-site parking supply or the potential reductions in demand from Transportation Demand Management (TDM) strategies. To better understand the impact of these measures, Alta used the GreenTRIP Connect tool to estimate site-specific parking demand reductions associated with the inclusion of affordable housing and the implementation of a comprehensive TDM program.

Table 4-6 compares the expected vehicle parking generated by each of the three scenarios with various GreenTRIP reduction estimates applied, including affordable housing and implementation of a comprehensive TDM program.

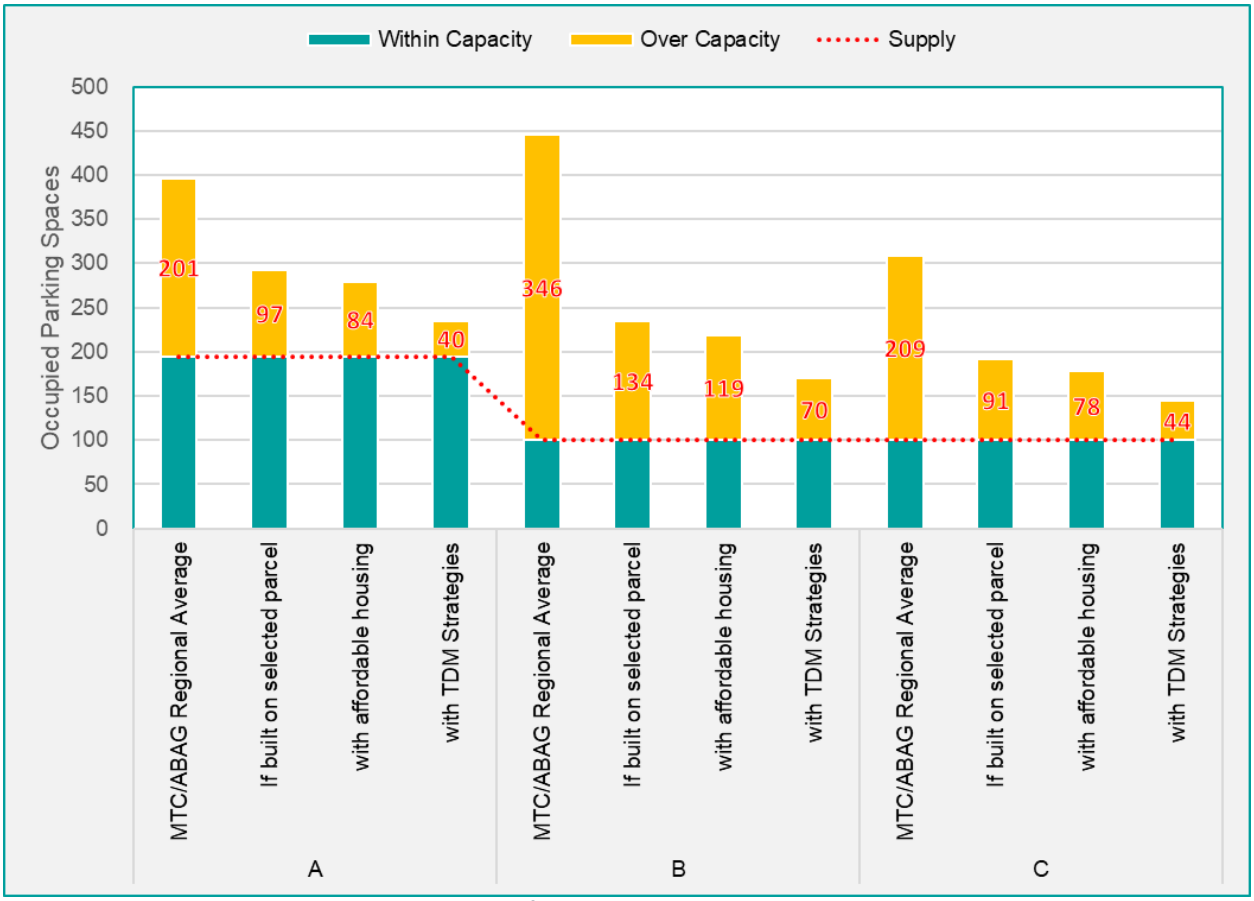


Figure 4-2. Summary of GreenTRIP Parking Generation Estimates

(source: ITE Parking Generation Manual, 6th Edition; GreenTRIP Connect tool, accessed May 2025)

All three scenarios are expected to generate parking deficits ranging from 40 and 134 spaces during the evening / overnight period when residential demand is highest. The analysis indicates that constructing multifamily housing on the project site could reduce parking demand by 26-47 percent compared to the regional average. Incorporating affordable housing into the development could further reduce peak parking demand by an additional 5-7 percent. Finally, implementing a comprehensive TDM program could lead to a further reduction of 16-22 percent in peak parking demand. These combined strategies offer a significant opportunity to mitigate parking impacts while supporting housing development goals.

4.5 Recommendations

It is important to note that **increasing the proposed parking supply** to meet the unmitigated demand would likely **exacerbate parking challenges** by encouraging greater vehicle use. More ample and convenient parking can reduce the effectiveness of alternative transportation modes and undermine TDM strategies.

4.6 Trip and Parking Generation Estimates

This section presents the vehicle trip and parking generation estimates for each project scenario.

4.6.1 Scenario A

Scenario A would remove 93 VTA parking spaces and construct 336 residential units, consisting of 169 one-bedroom, 90 two-bedroom, and 77 three-bedroom units. It would also provide 195 onsite parking spaces within a structured parking garage.

Trip Generation

Table 4-7 summarizes the anticipated daily and peak hour vehicle trips generated by Scenario A, based on average ITE trip generation rates.

Land Use	Size (units)	Daily	AM Peak Hour			PM Peak Hour		
			Inbound	Outbound	Total	Inbound	Outbound	Total
Multifamily (Mid-Rise) Housing - Scenario A	336	1,596	39	69	108	63	34	97

Table 4-7. Scenario A – ITE Vehicle Trip Generation Estimate

(source: ITE Trip Generation Manual, 11th Edition)

Notes:

1. *Represents average trip generation rates for housing close to rail transit in a General Urban / Suburban setting.*

Scenario A is projected to generate 1,596 new daily vehicle trips, including 108 AM peak hour trips (39 inbound and 69 outbound) and 97 PM peak hour trips (63 inbound and 34 outbound). However, these trip generation rates do not factor the effects of the proposed parking supply under each scenario nor additional measures such as affordable housing and TDM measures.

Therefore, Alta estimated VMT and vehicle trip reductions using the GreenTRIP Connect tool which factors the project site's parking supplies, ratio of affordable housing, and implementation of a comprehensive TDM program. Table 4-8 summarizes the expected daily and peak hour vehicle trips generated by Scenario A, with GreenTRIP reductions applied.

Land Use	Daily	AM Peak Hour			PM Peak Hour		
		Inbound	Outbound	Total	Inbound	Outbound	Total
Multifamily (Mid-Rise) Housing - Scenario A	1,596	39	69	108	63	34	97
with affordable housing	**1,531**	**37**	**66**	**103**	**61**	**33**	**93**
with TDM Strategies	**957**	**23**	**41**	**64**	**38**	**20**	**58**

Table 4-8. Scenario A – ITE Vehicle Trip Generation Estimate with GreenTRIP Reductions

(source: GreenTRIP Connect, Alta Planning + Design, 2025)

Under Scenario A, affordable housing can reduce daily and peak hour vehicle trips by as much as four percent and a comprehensive TDM program can reduce VMT and vehicle trips by up to 40 percent.

Parking Generation

Table 4-9 summarizes the anticipated peak parking occupancy generated by Scenario A, based on average ITE parking generation rates.

Land Use		Size (units)	Rate	Occupied Spaces
Multifamily (Mid-Rise) Housing	1br	*169*	*0.61*	*103*
	2br	*90*	*1.14*	*103*
	3br	*77*	*1.14*	*88*
Residential Total		**336**	**0.87**	**293**
Parking Supply			**0.58**	195
Surplus / (Deficit)			(0.29)	(98)

Table 4-9. Scenario A – ITE Parking Generation Estimate

(source: ITE Parking Generation Manual, 6th Edition)

Note: Rates are based on ITE code 221 Multi-Family (Mid-Rise) Housing close to Rail Transit in a General Urban / Suburban setting.

Scenario A is expected to generate a peak parking demand of up to 293 spaces during the evening/overnight period, when residential parking demand is typically highest. This would exceed the onsite supply of 195 spaces by at least 98 spaces, or approximately 50 percent, indicating "underparked" conditions that could lead to parking spillover into adjacent areas. However, these parking rates do not factor the effects of the proposed parking supply under each scenario.

Therefore, Alta estimated parking demand using the GreenTRIP Connect tool which not only factors the project site's proximity to high-quality transit but also the effects of reduced parking supplies on overall residential parking demand. Table 4-10 summarizes the anticipated peak parking demand for Scenario A based on the GreenTRIP Connect parking generation rates.

Parking Rate Assumption	Size (units)	Generation Rate (spaces / unit)	Occupied Spaces	Total Supply	Surplus / (Deficit)
MTC/ABAG Regional Average	336	1.18	396	195	(201)
If built on selected parcel		0.87	292		(97)
with affordable housing		0.83	279		(84)
with TDM Strategies		0.7	235		(40)

Table 4-10. Scenario A – GreenTRIP Connect Parking Generation Estimates

(source: GreenTRIP Connect, Alta Planning + Design, 2025)

Based on the MTC/ABAG regional average, if Scenario A were built elsewhere in the region, it could be expected to generate a peak parking demand of up to 396 spaces. This would exceed the proposed supply of 195 spaces by 201 spaces, or approximately 103%.

However, if Scenario A is built at the proposed project site with no additional mitigations, the expected peak parking demand would be 292 spaces, exceeding the supply by 97 spaces, or approximately 50%.

In contrast, if Scenario A includes at least 30 percent affordable housing and implements a comprehensive Transportation Demand Management (TDM) program, the peak parking demand is projected to decrease to 235 spaces during the evening/overnight period. This would result in a deficit of 40 spaces, or approximately 20 percent.

4.6.2 Scenario B

Scenario B would remove 93 VTA parking spaces and construct 378 residential units, consisting of 192 one-bedroom, 91 two-bedroom, and 95 three-bedroom units. It would also provide 100 onsite parking spaces within a structured parking garage.

Trip Generation

Table 4-11 summarizes the anticipated daily and peak hour vehicle trips generated by Scenario B, based on average ITE trip generation rates.

Land Use	Size (units)	Daily	AM Peak Hour			PM Peak Hour		
			Inbound	Outbound	Total	Inbound	Outbound	Total
Multifamily (Mid-Rise) Housing - Scenario B	336	1,796	44	77	121	71	38	110

Table 4-11. Scenario B – ITE Vehicle Trip Generation Estimate

(source: ITE Trip Generation Manual, 11th Edition)

Notes:

1. *Represents average trip generation rates for housing close to rail transit in a General Urban / Suburban setting.*

Scenario B is projected to generate 1,796 new daily vehicle trips, including 121 AM peak hour trips (44 inbound and 77 outbound) and 110 PM peak hour trips (71 inbound and 38 outbound). However, these trip generation rates do not factor the effects of the proposed parking supply under each scenario nor additional measures such as affordable housing and TDM measures.

Therefore, Alta estimated VMT and vehicle trip reductions using the GreenTRIP Connect tool which factors the project site's parking supplies, ratio of affordable housing, and

implementation of a comprehensive TDM program. Table 4-12 summarizes the expected daily and peak hour vehicle trips generated by Scenario B, with GreenTRIP reductions applied.

Land Use	Daily	AM Peak Hour			PM Peak Hour		
		Inbound	Outbound	Total	Inbound	Outbound	Total
Multifamily (Mid-Rise) Housing - Scenario B	1,796	44	77	121	71	38	110
with affordable housing	**1,731**	**42**	**75**	**117**	**69**	**37**	**106**
with TDM Strategies	**1,053**	**26**	**45**	**71**	**42**	**23**	**64**

Table 4-12. Scenario B – ITE Vehicle Trip Generation Estimate with GreenTRIP Reductions

(source: GreenTRIP Connect, Alta Planning + Design, 2025)

Under Scenario B, incorporating affordable housing is estimated to reduce daily and peak hour vehicle trips by up to 4 percent. Additionally, implementing a comprehensive TDM program can reduce VMT and vehicle trips by up to 41 percent.

Parking Generation

Table 4-13 summarizes the anticipated peak parking occupancy generated by Scenario B, based on average ITE parking generation rates.

Land Use		Size (units)	Rate	Occupied Spaces
Multifamily (Mid-Rise) Housing	1br	*192*	*0.61*	*117*
	2br	*91*	*1.14*	*104*
	3br	*95*	*1.14*	*108*
Residential Total		**378**	**0.87**	**329**
Parking Supply			**0.26**	**100**
Surplus / (Deficit)			**(0.61)**	**(229)**

Table 4-13. Scenario B – ITE Parking Generation Estimate

(source: ITE Parking Generation Manual, 6th Edition)

Note: Rates are based on ITE code 221 Multi-Family (Mid-Rise) Housing close to Rail Transit in a General Urban / Suburban setting.

Scenario B is expected to generate a peak parking demand of up to 329 spaces during the evening/overnight period, when residential parking demand is typically highest. This would exceed the onsite supply of 100 spaces by at least 229 spaces, or approximately 229 percent, indicating "Underparked" conditions that could lead to parking spillover into adjacent areas. However, these parking rates do not factor the effects of the proposed parking supply under each scenario.

Therefore, Alta estimated parking demand using the GreenTRIP Connect tool which not only factors the project site's proximity to high-quality transit but also the effects of reduced parking supplies on overall residential parking demand. Table 4-14 summarizes the anticipated peak parking demand for Scenario B based on the GreenTRIP Connect parking generation rates.

Parking Rate Assumption	Size (units)	Rate	Occupied Spaces	Total Supply	Surplus / (Deficit)
MTC/ABAG Regional Average	378	1.18	446	100	(346)
If built on selected parcel		0.62	234		(134)
with affordable housing		0.58	219		(119)
with TDM Strategies		0.45	170		(70)

Table 4-14. Scenario B – GreenTRIP Connect Parking Generation Estimates

(source: GreenTRIP Connect, Alta Planning + Design, 2025)

Based on the MTC/ABAG regional average, if Scenario B were built elsewhere in the region, it could be expected to generate a peak parking demand of up to 446 spaces. This would exceed the proposed supply of 346 spaces by 346 spaces, or approximately 346%.

However, if Scenario B is built at the proposed project site with no additional mitigations, the expected peak parking demand would be 234 spaces, exceeding the supply by 134 spaces, or approximately 134%.

In contrast, if Scenario B includes at least 30 percent affordable housing and implements a comprehensive Transportation Demand Management (TDM) program,

the peak parking demand is projected to decrease to 170 spaces during the evening/overnight period. This would result in a deficit of 70 spaces, or approximately 70 percent.

4.6.3 Scenario C

Scenario C would remove 93 VTA parking spaces and construct 262 residential units, consisting of 133 one-bedroom, 63 two-bedroom, and 66 three-bedroom units. It would also provide 100 onsite parking spaces within a structured parking garage.

Trip Generation

Table 4-15 summarizes the anticipated daily and peak hour vehicle trips generated by Scenario C, based on average ITE trip generation rates.

Land Use	Size (units)	Daily	AM Peak Hour			PM Peak Hour		
			Inbound	Outbound	Total	Inbound	Outbound	Total
Multifamily (Mid-Rise) Housing - Scenario C	336	1,245	30	54	84	49	27	76

Table 4-15. Scenario C – ITE Trip Generation Estimate

(source: ITE Trip Generation Manual, 11th Edition)

Notes:

1. *Represents average trip generation rates for housing close to rail transit in a General Urban / Suburban setting.*

Scenario C is projected to generate 1,245 new daily vehicle trips, including 84 AM peak hour trips (30 inbound and 54 outbound) and 76 PM peak hour trips (49 inbound and 27 outbound). However, these trip generation rates do not factor the effects of the proposed parking supply under each scenario nor additional measures such as affordable housing and TDM measures.

Therefore, Alta estimated VMT and vehicle trip reductions using the GreenTRIP Connect tool which factors the project site's parking supplies, ratio of affordable housing, and implementation of a comprehensive TDM program. Table 4-16 summarizes the expected daily and peak hour vehicle trips generated by Scenario C, with GreenTRIP reductions applied.

Land Use	Daily	AM Peak Hour			PM Peak Hour		
		Inbound	Outbound	Total	Inbound	Outbound	Total
Multifamily (Mid-Rise) Housing - Scenario C	1,245	30	54	84	49	27	76
with affordable housing	**1,180**	**29**	**51**	**79**	**47**	**25**	**72**
with TDM Strategies	**726**	**18**	**31**	**49**	**29**	**16**	**44**

Table 4-16. Scenario C – ITE Vehicle Trip Generation Estimate with GreenTRIP Reductions

(source: GreenTRIP Connect, Alta Planning + Design, 2025)

Under Scenario C, incorporating affordable housing is estimated to reduce daily and peak hour vehicle trips by up to 5 percent. Additionally, implementing a comprehensive TDM program can reduce VMT and vehicle trips by up to 42 percent.

Parking Generation

Table 4-17 summarizes the anticipated peak parking occupancy generated by Scenario C, based on average ITE parking generation rates.

Land Use		Size (units)	Rate	Occupied Spaces
Multifamily (Mid-Rise) Housing	1br	*133*	*0.61*	*81*
	2br	*63*	*1.14*	*72*
	3br	*66*	*1.14*	*75*
Residential Total		**262**	**0.87**	**228**
Parking Supply			**0.38**	100
Surplus / (Deficit)			(0.49)	(128)

Table 4-17. Scenario C – ITE Parking Generation Estimate

(source: ITE Parking Generation Manual, 6th Edition)

Note: Rates are based on ITE code 221 Multi-Family (Mid-Rise) Housing close to Rail Transit in a General Urban / Suburban setting.

Scenario C is expected to generate a peak parking demand of up to 228 spaces during the evening/overnight period, when residential parking demand is typically highest. This would exceed the onsite supply of 100 spaces by at least 128 spaces, or approximately 128 percent, indicating "Underparked" conditions that could lead to parking spillover into adjacent areas. However, these parking rates do not factor the effects of the proposed parking supply under each scenario.

Therefore, Alta estimated parking demand using the GreenTRIP Connect tool which not only factors the project site's proximity to high-quality transit but also the effects of reduced parking supplies on overall residential parking demand. Table 4-18 summarizes the anticipated peak parking demand for Scenario C based on the GreenTRIP Connect parking generation rates.

Parking Rate Assumption	Size (units)	Rate	Occupied Spaces	Total Supply	Surplus / (Deficit)
MTC/ABAG Regional Average	262	1.18	309	100	(209)
If built on selected parcel		0.73	191		(91)
with affordable housing		0.68	178		(78)
with TDM Strategies		0.55	144		(44)

Table 4-18. Scenario C – GreenTRIP Connect Parking Generation Estimates

(source: GreenTRIP Connect, Alta Planning + Design, 2025)

Based on the MTC/ABAG regional average, if Scenario C were built elsewhere in the region, it could be expected to generate a peak parking demand of up to 309 spaces. This would exceed the proposed supply of 100 spaces by 209 spaces, or approximately 209 percent.

However, if Scenario C is built at the proposed project site with no additional mitigations, the expected peak parking demand would be 191 spaces, exceeding the supply by 91 spaces, or approximately 91 percent.

In contrast, if Scenario C includes at least 30 percent affordable housing and implements a comprehensive Transportation Demand Management (TDM) program,

the peak parking demand is projected to decrease to 144 spaces during the evening/overnight period. This would result in a deficit of 44 spaces, or approximately 44 percent.

4.7 Future Transit Ridership Projections (Net New)

4.7.1 VTA Parking Replacement Model

The Santa Clara Valley Transportation Authority (VTA) developed the Parking Replacement Model to guide decisions about park-and-ride facilities in the context of transit-oriented development (TOD). This model provides a data-driven framework for evaluating whether parking should be retained, reduced, or replaced when new development is proposed near transit stations.

At its core, the model estimates the net change in transit ridership by comparing the potential gains from TOD with the potential losses from reduced parking availability. It also assesses the financial implications by calculating projected farebox revenue changes and the costs associated with parking replacement or management strategies, such as implementing paid parking. The model supports scenario-based analysis, allowing planners to test different development and parking configurations to determine the most effective balance between land use efficiency, transit access, and financial sustainability.

By quantifying the trade-offs between parking supply and TOD benefits, the VTA Parking Replacement Model helps ensure that decisions align with broader goals of reducing auto dependency, increasing transit ridership, and promoting sustainable urban growth. It reinforces the principle that strategic reductions in parking—when paired with high-quality, well-located development and multimodal connectivity improvements—can yield long-term mobility and economic benefits.

4.7.2 Great Mall Station Context

Great Mall Station currently generates 338 average daily boardings on the Orange Line (LRT). The station currently provides 93 parking spaces at the TOD site; however, peak parking occupancy data specific to this station was not available. To estimate peak parking occupancy, Alta applied the VTA's systemwide average occupancy rate of approximately 19 percent, which suggests approximately 18 spaces are occupied during the peak period.

4.7.3 Net New Transit Riders

Table 4-19 outlines the three potential TOD scenarios for the Great Mall Station parking lot, as analyzed using the VTA Parking Replacement Model.

Mode	Scenario		
	A	B	C
Net New Daily Weekday Riders (all modes)	**192**	**217**	**149**
Drivers to Great Mall Station	(2)	(2)	(2)
on VTA Light Rail	194	219	151
on VTA Bus	0	0	0
Change in Annual Fare Revenue (all modes)	**$256,747**	**$289,093**	**$199,758**
Δ in Annual Fare Revenue (VTA Light Rail)	$258,761	$291,107	$201,772
Δ in Annual Fare Revenue (VTA Bus)	($2,014)	($2,014)	($2,014)

Table 4-19. Summary of VTA Parking Model Analysis Results

All scenarios indicate a reduction of two daily riders to Great Mall Station due to the removal of 93 VTA parking spaces. However, they also project significant net increases in overall weekday transit ridership. Scenario A anticipates a net gain of 192 weekday riders. In comparison, Scenario B yields a slightly higher net increase of 217 weekday riders, and Scenario C results in a net gain of 149 weekday riders. While the difference in projected ridership is modest, Scenario B offers marginally greater benefits in both ridership and fare revenue.

4.7.4 TDM Policy Requirements

The VTA Transit-Oriented Communities (TOC) Policy, updated in January 2024, established a framework for how VTA supports and implements TOD on VTA-owned properties and in surrounding communities. The TOC Policy requires TOD projects built on VTA-owned land to include affordable housing, reduce car dependency through limited parking and transportation demand strategies, and engage communities to ensure inclusive growth. The TOC TDM requirements use a point-based system with each TDM point representing a 1 percent reduction in VMT. Projects must implement at least 20 points from a menu of pre-approved strategies, with 8 points automatically granted for providing required transit passes. Developers can choose additional strategies—such as bike facilities, carpool programs, unbundled parking, and telecommuting support—to fulfill the remaining requirements. The policy also mandates

ongoing monitoring and reporting to ensure alignment with local climate and mobility goals.

TDM strategies offer a cost-effective and scalable approach to reducing single-occupancy vehicle (SOV) trips, alleviating parking demand, and encouraging greater use of public transit. By influencing travel behavior through incentives, infrastructure, and policy, TDM complements capital investments and enhances the overall efficiency of the transportation system.

Key benefits of TDM implementation include:

- **Reduced Car Dependence**: Residential-focused TDM strategies – such as transit pass programs, carshare memberships, and enhanced pedestrian and bike infrastructure – encourage residents to choose alternatives to driving, reducing household vehicle trips and parking demand.
- **Efficient Use of Parking**: Strategies like unbundled parking, limited parking supply, and shared parking arrangements with nearby uses help lower housing costs and discourage excess vehicle ownership.
- **Increased Transit Ridership**: Transit subsidies, first/last-mile connections (e.g., bike/scooter share), and real-time information systems make transit a more attractive and practical choice for daily travel.

When integrated with land use planning and transit investments, TDM can amplify the benefits of the test-fit scenarios by capturing additional ridership potential and mitigating localized traffic and parking impacts. Continued coordination with developers and community stakeholders will be essential to maximize the effectiveness of TDM measures.

Alta's analysis using the GreenTRIP Connect and VTA TOD TDM Calculator tools shows that integrating affordable housing and a robust TDM program can yield substantial reductions in vehicle miles travelled (VMT), vehicle trips, and parking demand. The tools indicate that constructing multifamily housing on the project site with affordable housing and a comprehensive TDM plan can reduce VMT by up to 42 percent and parking demand by up to 59 percent. Most notably, ridership at Great Mall Station could increase by as much as 64 percent.

5 Community Engagement

Community engagement for this access study included two phases of both in-person and online outreach.

Phase 1

Phase 1 focused on gathering information on existing on-the-ground conditions and access challenges. Engagement occurred between January and April 2025, reaching a total of **477 participants** across the following outreach activities and touchpoints:

- Community Open House
- Five pop-up events
- Walk audit
- Online survey using both a form-based questionnaire and a map-based tool, available in English, Spanish, Chinese, and Vietnamese

Phase 2

Phase 2 focused on obtaining feedback from stakeholders, community members, and agency staff on the draft access improvements for the station area. Engagement occurred between September and November 2025, reaching a total of **399 participants** through the following outreach activities and touchpoints:

- Three pop-up events
- Online survey available in English, Spanish, Chinese, and Vietnamese
- Community Open House (“Meet the Developer”)

5.1 Community Open House

VTA held two public meetings regarding the development of TOD at the station. The first was a community meeting held in January 2025. Following the selection of developer partners EBALDC in August 2025, VTA held a Meet the Developer meeting in November 2025.

Phase 1 Community Open House hosted at Milpitas Library in January 2025

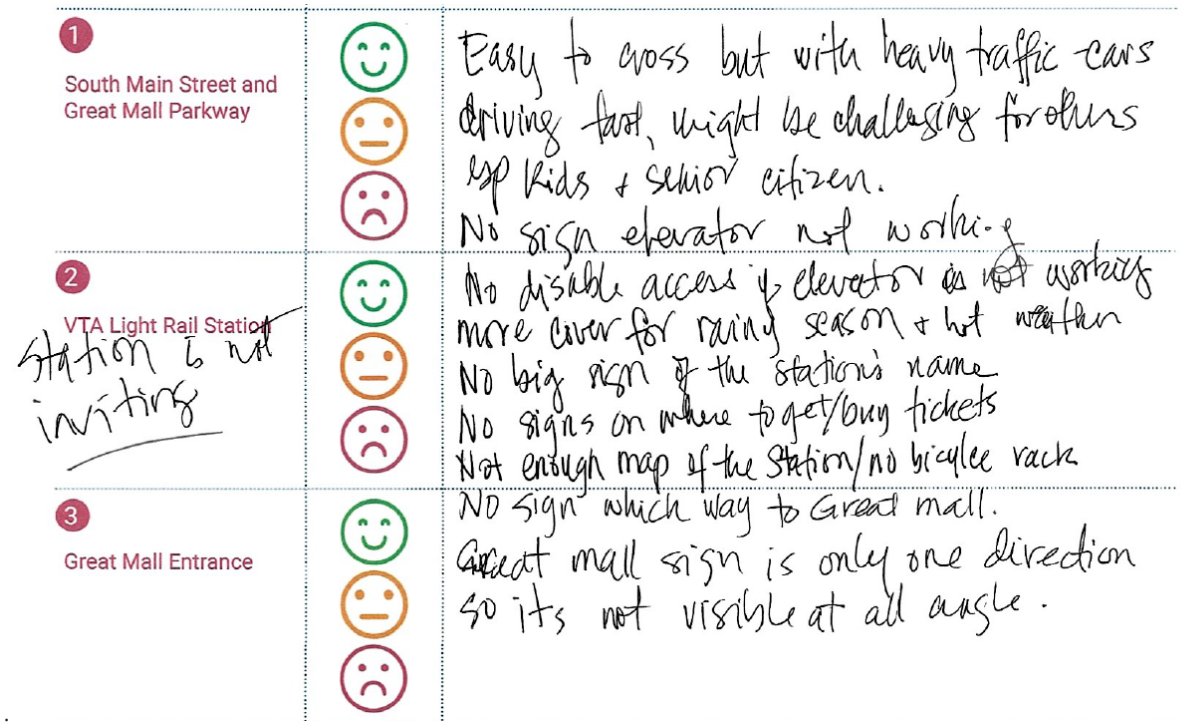
Phase 2 Community Open House hosted at Mable Mattos Elementary School

5.2 Walk Audit

On March 13, 2025, at commute hours, a walk audit was conducted to evaluate on-the-ground conditions for pedestrians and bicyclists. The audit brought together a diverse group of stakeholders, including residents, community-based organizations, City and VTA staff, and the consultant team. Participants traversed two predefined one-mile routes, holding structured discussions at key intersections, station access points, and trail connections to the Great Mall. All participants recorded their observation in feedback form and also rated the conditions. These findings are detailed in *Appendix-B* and have been integrated into the study's needs assessment.

Group debriefing on collectively on their experience outside Starbucks on Great Mall Parkway

Participants analyzing the intersection of Great Mall Parkway and Main Street and recording observations during the walk audit



A snapshot of the feedback form filled in by participants at the walk audit

5.3 Pop-up Events

Pop-up events were held during both phases of engagement.

- **Phase 1 (March 9 – April 15, 2025):** Five pop-ups were held at locations around Great Mall Station (Milpitas Farmers Market, Milpitas Library, Trader Joe's, Murphy Park (Earth Day event), Milpitas Transit Station) to identify current access barriers and engage station users and residents. These events engaged over 312 community members.
- **Phase 2 (September 7 – September 20, 2025):** Three pop-ups were held around the station (Milpitas Farmers Market, Delano Manongs Park, Milpitas Transit Center), engaging over 158 community members. Boards displaying draft improvement recommendations allowed participants to vote on priorities or suggest additional improvements.

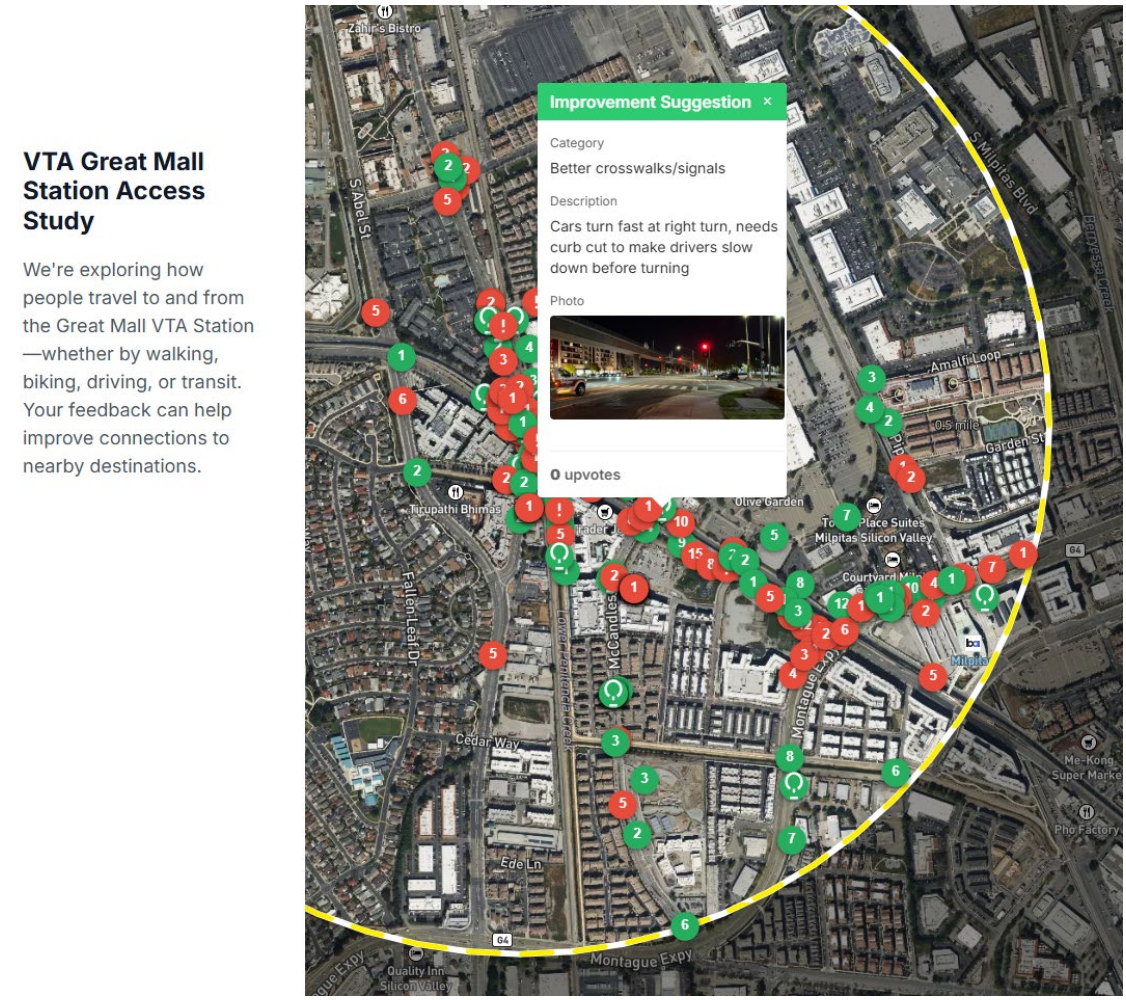
Results from both phases were incorporated into the needs assessment and proposed improvements and are presented in *Appendix-A*.

5.4 Online Survey

Online surveys were deployed across both project phases to capture community feedback. During Phase 1, the team utilized **Google Forms** and **FCLEngage**—a map-based tool—to identify existing conditions, issues, and opportunities. In Phase 2, a **SurveyMonkey** questionnaire was used to gather input on proposed recommendations and project prioritization. To ensure accessibility, surveys mirrored the content of the in-person pop-up events and were available in English, Spanish, Vietnamese, and Chinese. Participation was further encouraged through QR codes distributed at all in-person events.

- Phase 1 Survey (March 6 – April 18, 2025): 122 responses
- Phase 2 Survey (September 1 – October 1, 2025): 211 responses

Detailed results are included in *Appendix-A*.



Snapshot of EngageMap platform with survey comments from Phase 1

5.5 Technical Advisory Committee Meetings

A Technical Advisory Committee (TAC) was organized for this study, consisting of VTA staff, City of Milpitas Public Works and Community Development Departments, Santa Clara County, and BART staff. Two TAC meetings were held:

- **July 18, 2025:** Overview of the access study, existing conditions, and summary of Phase 1 engagement
- **October 30, 2025:** Summary of the needs assessment and future conditions analysis, proposed access recommendations, and Phase 2 engagement

Both meetings included opportunities for TAC members to provide input and updates on projects that may impact the access study. Feedback was incorporated into the needs assessment and recommendations.

5.6 Outreach Process

To ensure broad public engagement, VTA staff executed a comprehensive outreach strategy involving mailed flyers to all local residents and businesses, social media campaigns, and school-based broadcasting. The VTA Government Affairs team also coordinated directly with elected officials. Supported by the City of Milpitas and local community organizations, these collaborative efforts maximized the project's visibility and survey participation.

5.7 Summary of Key Findings

After Phase I Engagement

- **Pedestrians:** Shorter crosswalks, activation beacons, wayfinding, and signage
- **Transit Riders:** Closer bus stop, live transit display, footbridge
- **Bicyclists:** Safe bike lane, better creek trail connection
- **Vehicles:** Better site circulation, drop-off zones
- **Placemaking & Activation:** Street-level station presence, enhanced walk to Great Mall

After Phase II Engagement

- **Station Access Improvements:** Real-time departure displays; easier bus and rail connections; footbridge south of Great Mall Parkway
- **Major Intersection Improvements:**
  - Great Mall Pkwy & S Main St
  - Great Mall Pkwy & McCandless Dr
  - Great Mall Pkwy & Montague Expy
- **Top Corridor-Wide Improvements:**
  - Improve Great Mall Parkway for cyclists and pedestrians
  - Transform the access road into a vibrant station gateway

These findings have been incorporated into the improvements recommended in Chapter 7 of this report and Appendix-A.

6 Needs Assessment

The Great Mall Station Access Study determined multimodal transportation needs by analyzing existing infrastructure, reviewing prior reports, and conducting new public outreach efforts. The latter included workshops, pop-up events, an online survey, and a walk audit of the station and the surrounding vicinity. The identified needs center on enhancing safety, improving accessibility, and optimizing the overall transit experience, highlighting both opportunities and challenges for better connectivity and access.

6.1 Pedestrians

Most of the study areas have basic pedestrian infrastructure such as sidewalks, crosswalks, and pedestrian signals. However, some challenges remain, such as long crossing distances, poor lighting in places, and infrastructure optimized for vehicle speed and volume (see Figure 6.1). During the existing conditions review and initial, stages of community engagement (e.g. walk audit, community workshop, and surveys), the following pedestrian access needs were identified for Great Mall:

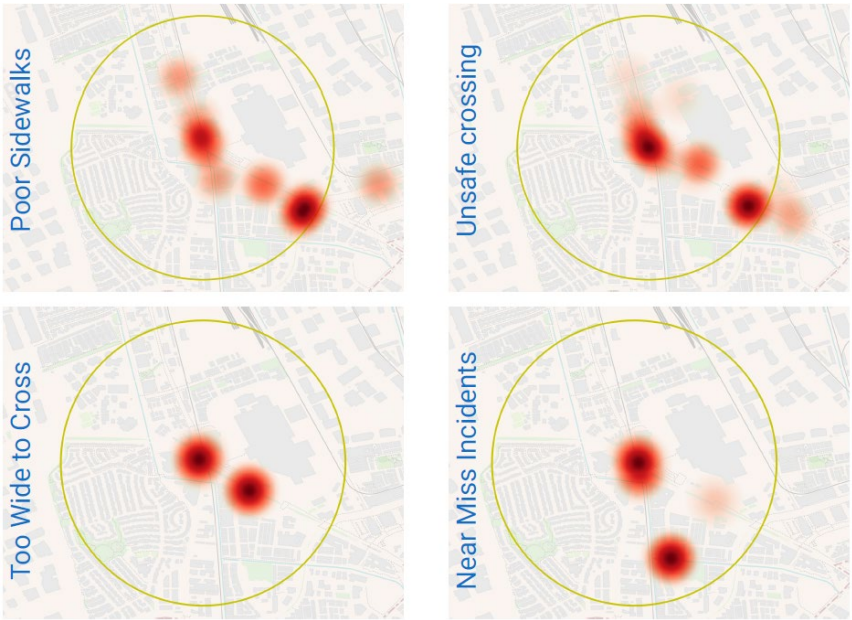
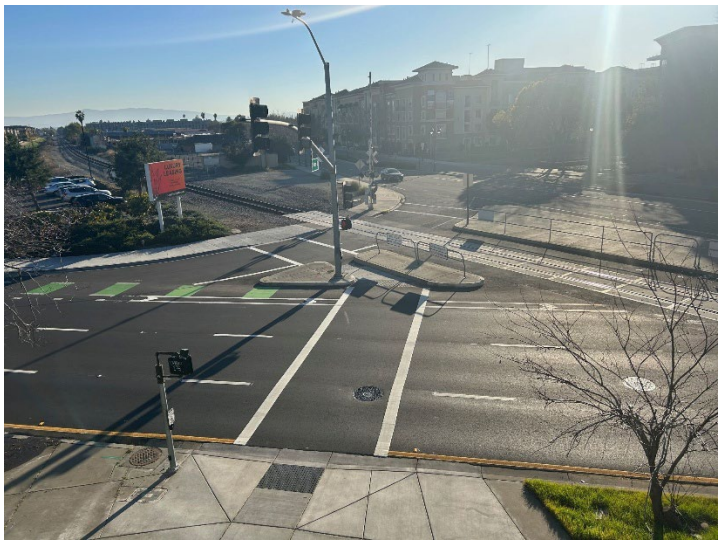


Figure 6-1. Pedestrian Network Observations and Gaps reported on online survey.

Review Appendix C1 for detailed observation.



Long Pedestrian Crossings at Great Mall Parkway and S Main Street

- **Long and Unsafe Pedestrian Crossings**: Major intersections such as Great Mall Parkway, S Main Street, and Montague Expressway are up to 185 feet wide. Some crossing locations lack a central pedestrian refuge island.
- **Traffic Signals:**
    - Long signal cycles result in long wait times for pedestrians.
    - Pedestrians do not get a crossing signal by default (i.e. self-actuating), but must press a “push” button to activate. If not pressed on time, they may not get a signal and have to wait until the next cycle.
    - Yellow and red times for left turns are not sufficient at Great Mall Parkway and S Main Street, which introduces conflicts between high-speed turning vehicles and pedestrians.
- **Dangerous Intersections for Pedestrians and Bicyclists**: Major intersections have slip lanes (aka “pork chops”) for vehicles turning right. These are designed such that turning vehicles do not need to slow down to make right turns, and drivers tend to focus on merging rather than looking out for pedestrians – both of which reduce yield rates and increase risk to pedestrians.
- **Lack of Pedestrian-scale Wayfinding Signage**: Signage is needed to guide users to and from the station entrance, platform, nearby destinations, and especially to and from the Great Mall.
    - There are no clear, user-friendly maps at the station of the surrounding area to assist with navigation.
    - No notifications when elevators are out of service, along with wayfinding for alternative accessible routes.
- **Lack of Elevator and Bridge:** Access to the station from the west lacks an elevator and bridge, requiring an additional crossing compared to access from the east.
- **Lack of Sidewalk Connections:**

- The west side of Great Mall Parkway between McCandless Drive and Centre Pointe Drive lacks a sidewalk, but there are no signs notifying pedestrians to use a different route (e.g. “Work Zone” or “Sidewalk Closed”)
- The sidewalk at some locations is damaged, obstructed or missing, making it inaccessible for pedestrians.

Uneven Paving at Great Mall Station Plaza

- **Poor Lighting:** Better lighting is needed under the elevated light rail track at crosswalks throughout the corridor, impacting visibility and safety, putting pedestrians at risk.
- **Missing Crosswalk Legs:**
  - Great Mall Drive & S Main Street (south leg across S Main Street missing)
  - S Abel Street & Capitol Avenue (south leg across S Abel Street missing)
  - Great Mall Drive & Fairlane Drive (west and south legs missing).

6.2 Bicycling

Bicycling is an important first- and last-mile option for accessing Great Mall Station, offering a low-cost, sustainable, and healthy alternative to driving. However, the current bicycling environment in the study area does not fully support safe and convenient access. While some bicycle facilities exist, they are limited in coverage, lack physical protection, and do not form a connected network. These gaps create barriers for people who might otherwise choose to bike to the station, particularly those who are less confident riding in high-traffic conditions.

The study area’s bicycle infrastructure is primarily composed of Class II painted bike lanes, which are often discontinuous and provide minimal separation from vehicle traffic. This results in a high-stress environment that discourages bicycling and leads to

behaviors such as sidewalk riding. During the existing conditions review and initial stages of community engagement (See Figure 6-2 , the following bicycle access needs were identified for the Great Mall station area:

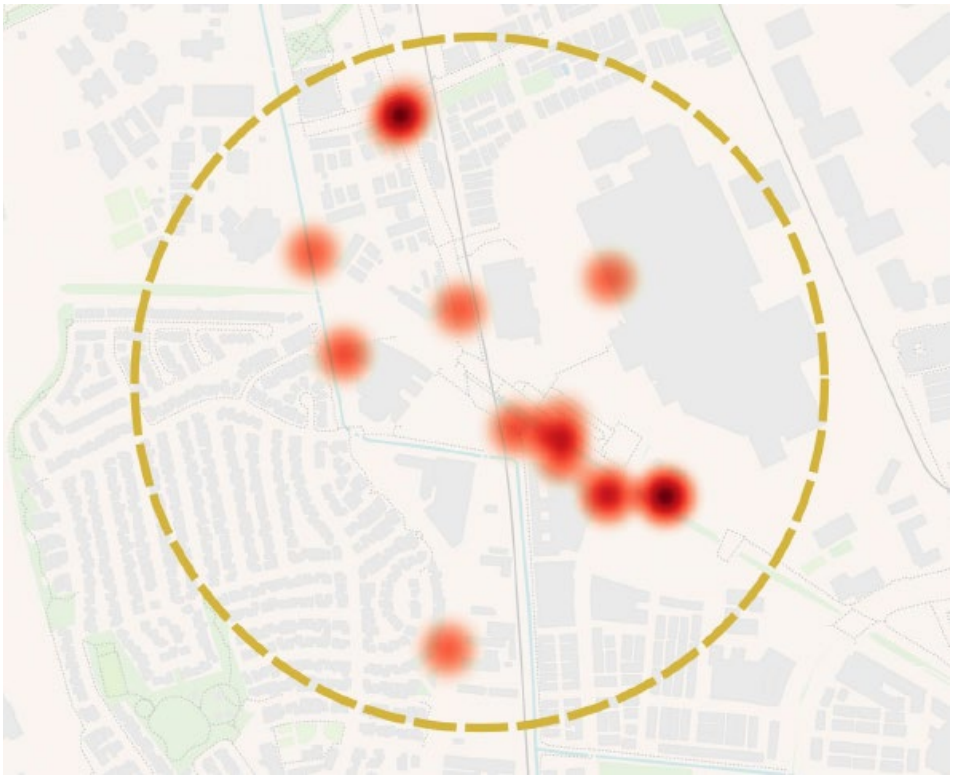


Figure 6-2. Bicycle Network Observations and Gaps reported on online survey.

Review Appendix C2 for detailed observation.

- **Lack of Low-Stress Connections:** There are no continuous, protected bike routes linking surrounding neighborhoods, the Great Mall, and the station.
- **Safety Concerns on Arterials:** High-speed, high-volume roadways such as Great Mall Parkway create physical and psychological barriers for bicyclists.
- **Insufficient Station Access Features:** Missing curb ramps, inadequate wayfinding, and lack of secure, weather-protected bicycle parking reduce convenience and comfort.
- **Conflict Points with Vehicles:** Turning movements across bike lanes increase crash risk, especially near intersections and driveways.

During site visits people were frequently observed riding on the sidewalk due to the lack of protected on-street infrastructure. Although planned improvements—such as buffered and future Class IV protected bike lanes—will address some of these issues, current conditions significantly limit the attractiveness of bicycling as a first- and last-mile option.

Sidewalk Riding is Common Due to Roadway Conditions

6.3 Vehicular Circulation

The study area is well-served by major roadways, but vehicular access presents challenges related to safety, congestion and multimodal conflicts. Arterials and intersections are designed for high vehicle speeds, and result in an auto-dominated environment with safety concerns for all users.

- High speed designs result in high crash rates and more serious collision outcomes. The major streets in the study area are on the Milpitas high injury network.
- Key needs include traffic calming and complete streets elements to balance vehicle flow with improved pedestrian and cyclist access and safety.

Vehicular access is expected to change with the proposed TOD development. The vehicular access to and from the TOD site would be on Great Mall Drive, instead of the existing driveway on Great Mall Parkway. Please review Appendix C4 for detailed observations. Vehicular access needs are analyzed in depth in the Future Needs chapter.

The primary vehicular access needs are:

- Clearly designated and well-marked **drop-off and pick-up zones** for private vehicles and shared rides.
- **Wayfinding signage and circulation guidance** to reduce confusion and unsafe behavior near the station

6.4 Station Access and Layout

Great Mall Station is served by light rail and bus routes; however, some station amenities are lacking. Bus service is infrequent and connectivity between modes is poor. Most transit needs are related to the experience at the station including, wayfinding and transferring between transit services. The station layout in Figure 6-3 positions some of these elements.

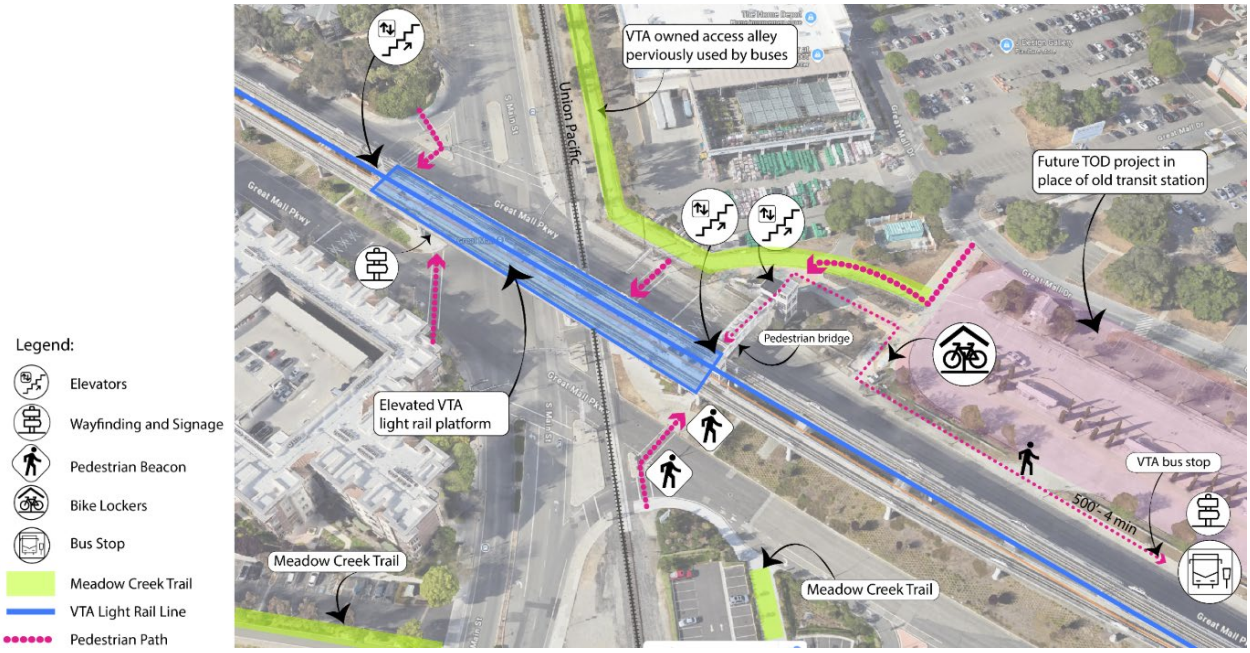


Figure 6-3. Station layout, existing access points and amenities

During the existing conditions review and community engagement activities (e.g. walk audit, community workshop, survey), the following transit access needs were identified:

- **Elevated Platform**
  - The platform's location above South Main Street, the Union Pacific Railroad, and Great Mall Parkway creates inherent **accessibility challenges** for users of all abilities.
- **Vertical Access Barriers**
  - The presence of three vertical access points (elevators and staircases) introduces potential physical barriers, particularly if elevators become non-operational, thereby impacting accessibility for users with bicycles, strollers, or wheelchairs (see Figure 6-3)
  - Furthermore, the location of the two primary access points within the **median of the Great Mall Parkway** necessitates that users traverse a wide intersection to reach the platform.
- **Great Mall Parkway**

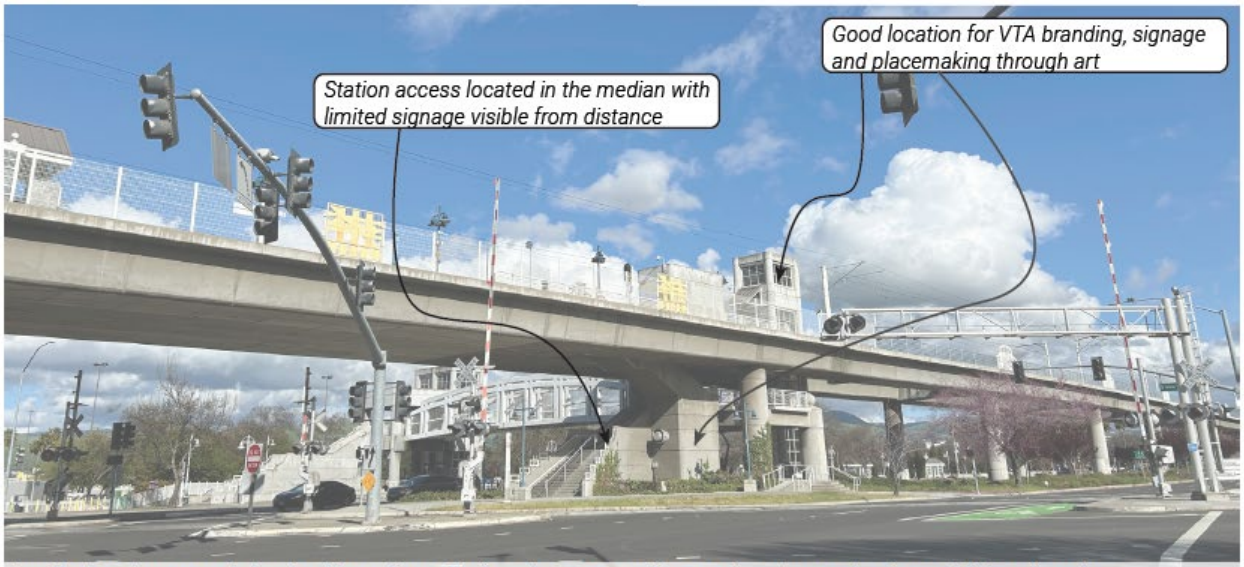
    - The parkway's **width (over 180 feet)** makes it physically difficult and time-consuming to cross on foot, increasing conflicts with vehicles.
    - **Oblique intersections** and the breadth of traffic lanes (which encourage excessive vehicle speed) present considerable safety hazards for pedestrians and cyclists, especially when they attempt to enter the median and navigate vehicles turning left.
- **Visual & Wayfinding Deficiencies**
    - The station's visibility from the street is compromised by inadequate signage and its elevated platform. The station lacks **distinct signage or branding**, so it may not be obvious to potential riders who don't already know where it is.
    - The lack of sufficient directional signs on the platform fails to clearly guide users to the appropriate street-level exits, which may inadvertently direct them toward hazardous intersections.
    - There is no **wayfinding** from the station to nearby destinations, such as the Great Mall, other neighborhood retail, or the canal trail.
- **Inadequate Amenities & Intermodal Connection**
    - The station lacks critical facilities, including weather protection (wind, rain and sun) at the platform and real-time transit information displays, maps, and general directional signage station entrances at street level
    - The VTA 66 bus stop is approximately 500 feet away, features minimal wayfinding signage, and offers no weather protection.
- **Bike Access**
    - Bike lockers do not have direct curb access from existing bicycle lanes.
    - There are no shared bike facilities at the station.

Station entry at street level with minimal signage about transit

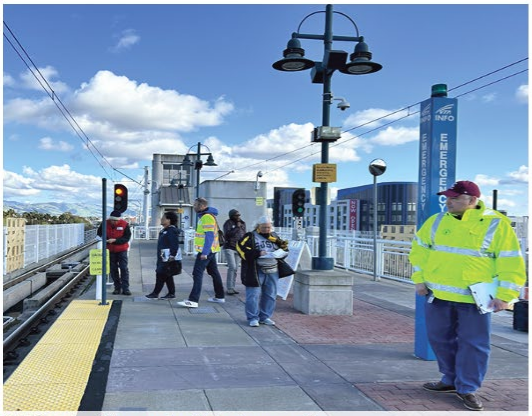
The staircase to the platform has limited experiential elements

The station entry's location in the median forces people to navigate a busy intersection with speeding cars.

The street-level station entry, with its minimal signage and lack of live transit data, creates unpredictability for transit users.



Insufficient signage and visual guidance(branding) on the street to direct pedestrians to the elevated light rail station

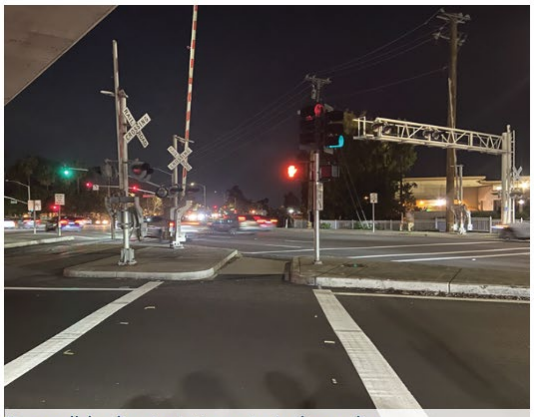

Platform looking east with basic amenities


The shade structure is inadequate in providing rain protection

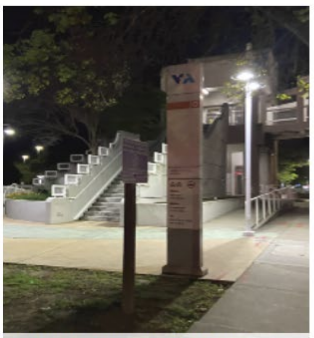

Platform access from transit center


Pedestrian footbridge connecting to transit center


Staircase leading to/from platform


Crosswalk leading to station entry in the median


Pedestrian foot bridge and station staircase in the median


No illumination at wayfinding signage

Well lit light rail station at night

6.5 Placemaking & Activation

The Great Mall Station is a critical transit asset that currently underperforms its potential as a gateway, a community node, and a safe, vibrant public space. There are five key areas where a lack of strategic placemaking and activation is actively undermining **security** and inhibiting **high ridership**.

1. **The Need for Station Identity:** The station currently suffers from a lack of a strong **visual presence** due to its elevated location, presents limited street activity and fails to function as a recognizable destination. Its anonymity at the ground level, compounded by the absence of VTA branding and clear signage, presents a significant obstacle to new riders. Integration of public art, lighting, music, and a well-designed transit plaza will support identity creation at the station and create a distinct visual anchor. This lack of a unique identity or "sense of place" makes the station practically invisible to potential users. As noted in community engagement and stakeholder feedback, it often leads to confusion with the nearby Milpitas BART station, which is located within half a mile of the Great Mall Station.

Vertical access to the Great Mall Transit Station from north of Great Mall Parkway is unidentified and lacks clear wayfinding.

2. The Need for Transit-Oriented Activity: The station and its former transit center are currently characterized by extensive, underutilized spaces resulting from a lack of sustained human presence. This inactivity contributes to an elevated perception of insecurity, particularly during evening and off-peak hours, thereby deterring patronage across all demographic segments. The integration of transit-oriented amenities, such as small-scale retail, food trucks, or vendor kiosks, will establish "eyes on the street." Generating consistent, legitimate human activity is a proven method for enhancing both perceived and actual security, thus rendering the station a more inviting and secure environment.

3. The Need to Improve Access Road Behind Home Depot: The former bus access road behind the Home Depot should be repurposed into a maintained, well-lit pedestrian and bicycle corridor. This would create a safe, direct link to the community and Great Mall, enhancing the station's functional value and contributing to placemaking through public art and design improvements.

4. The Need to Increase Connection to the Great Mall Entrance: The Great Mall is a key driver for light rail ridership at this station. However, the walking experience from the VTA station to the mall is currently indirect, lacks visual interest, is surrounded by surface parking and is deficient in adequate pedestrian safety amenities, such as crosswalks, signage, and lighting (see Figure 6-4). The connection between the mall entrance and the station needs significant improvement with landscaping, better visual connection, and creating a formal arrival experience.

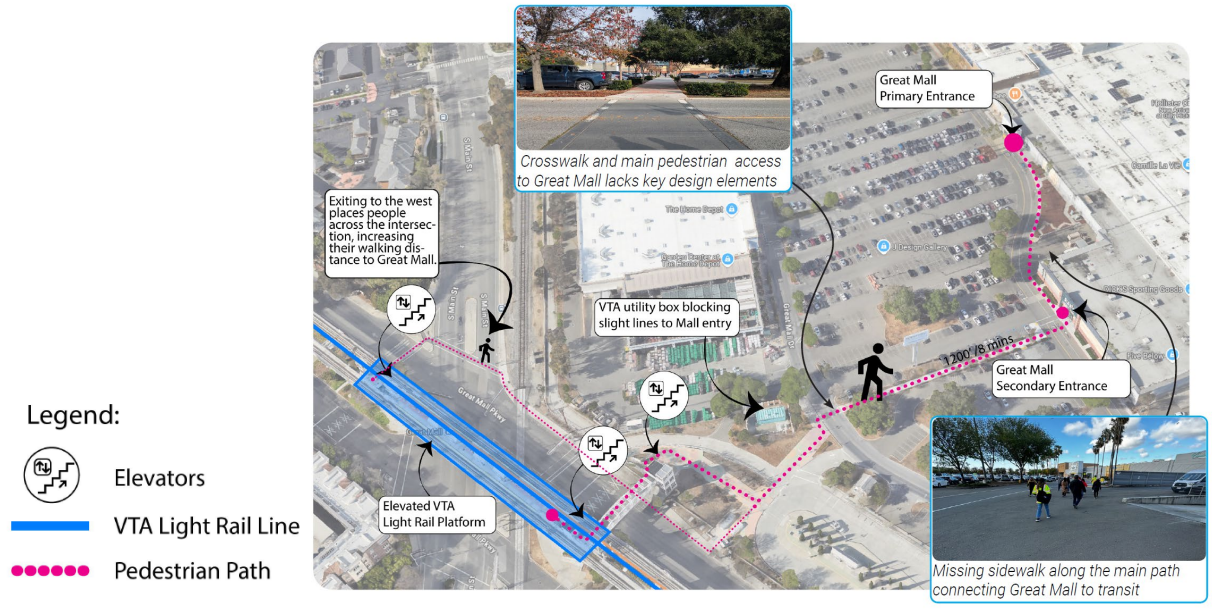


Figure 6-4. The Pedestrian Connection between Great Mall Station and Great Mall Entrance is indirect and unmarked

5: The Need to Improve Connection to the Local Trail Network: Connection to the Local Trail Network: The current creek network provides an appealing, traffic-free path connecting the station to the neighborhoods southwest of Great Mall Parkway. However, the lack of wayfinding and these connection points near the station is a missed opportunity. Implementing a clear, neighborhood-scale wayfinding system and establishing well-defined trailheads would successfully direct people toward these lower-stress walking environments and connect to the transit station.

7 Proposed Access Improvements

This chapter presents a comprehensive set of multimodal access and safety recommendations for the Great Mall Station area, developed through stakeholder engagement, field visits, collision data analysis, and review of local and regional plans. The recommendations are organized into three geographic categories: the Great Mall Station Area, Major Intersections, and Corridor-wide Improvements. Each category encompasses location-specific challenges and opportunities to improve walking, biking, transit access, and vehicle circulation.

The location-based approach was adopted to simplify stakeholder feedback for phase II engagement to determine community access priorities in each location.

- **Category 1: Great Mall Station Area**
  - Focuses on enhancing multimodal connectivity between the station and nearby destinations such as the Great Mall. Key improvements include wayfinding signage, secure bicycle parking, improved transit connections, designated pick-up/drop-off zones, and placemaking strategies to create a vibrant station environment.
- **Category 2: Major Intersections**
  - Great Mall Parkway has several high-traffic intersections with safety concerns due to wide lanes, long crossings, and poor lighting. Recommendations include lane reconfigurations, pedestrian refuge islands, upgraded lighting, signal timing adjustments, and strategies to improve visibility and reduce conflicts.
  - Improve key neighborhood intersections in the nearby residential areas with frequent pedestrian activity. Improvements focus on traffic calming, high-visibility crosswalks, bulb-outs, raised crossings, and filling infrastructure gaps to support safe routes for students and residents.
- **Category 3: Corridor Wide Improvements**
  - Support long-term infrastructure investments along major roadways, trails, and the VTA access road. Strategies include sidewalk gap closures, physically separated bike lanes, trailhead enhancements, and placemaking features such as lighting, landscaping, and public amenities to create a safer and more inviting public realm.

Collectively, these recommendations establish a framework for enhancing multimodal access, safety, and user experience in the Great Mall Station area. By addressing both localized and corridor-wide needs, the proposed strategies support and promote alternative modes and strengthen connections between transit, neighborhoods, and key destinations. This integrated approach lays the foundation for a safer, more accessible, and vibrant station environment. The Figure 7-1& Figure 7-2 below illustrates the locations of the clusters and corridors.

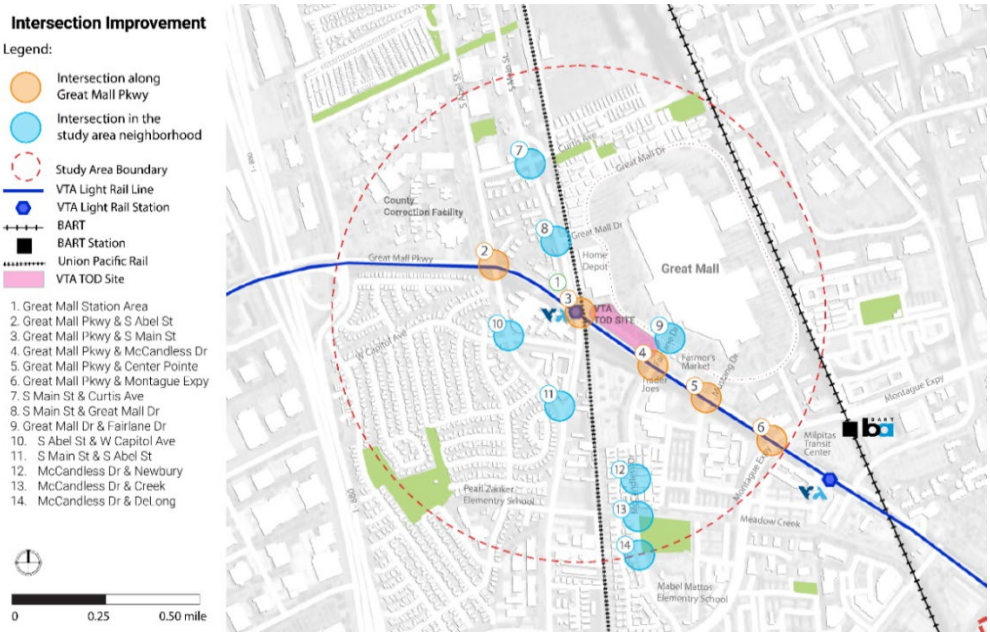


Figure 7-1. Intersection improvements

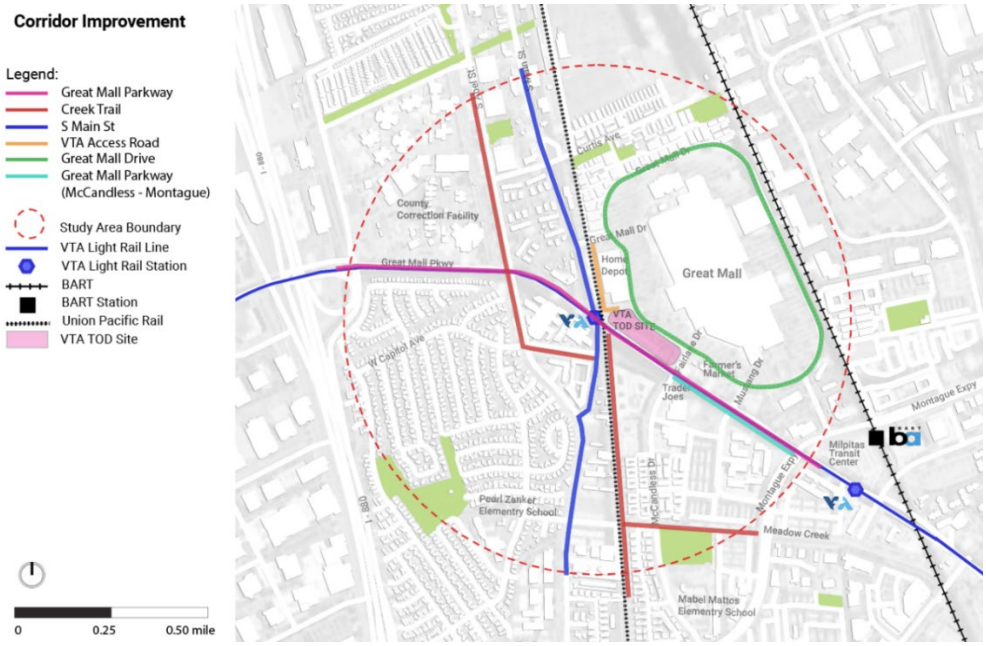


Figure 7-2. Corridor wide improvements

7.1 Station Area Recommendations

The purpose of the study is to develop targeted recommendations for improving access and safety at and around the Great Mall Station. Input includes stakeholder engagement, multiple field visits, collision data analysis, and planned improvements identified in local and regional plans. As the project advances, a detailed design review is recommended to assess feasibility and refine concepts.

Access recommendations are designed to improve conditions for walking, biking, transit, and vehicle circulation around and within the station area, organized into context-sensitive clusters. Each recommendation in this document is labeled with a letter-number prefix, i.e., P17, which identifies the travel mode or improvement type associated:

- **P**- Pedestrians,
- **B**- Bicyclists,
- **T-** Transit Riders,
- **V**- Vehicular Traffic and
- **PM**- Placemaking recommendations.

The number corresponds to where the recommendation is listed within each respective travel mode in Appendix D. Appendix D is a comprehensive table outlining the full set of access recommendations categorized by location.

7.1.1 Category 1 – Great Mall Station Area

The first category includes the Great Mall Station area and nearby connections leading to major destinations, like Great Mall. Recommendations aim to improve wayfinding, pedestrian and bicycle access, facilitate seamless transfers between modes, and enhance branding and attractiveness through placemaking. (see Figure 7-3)

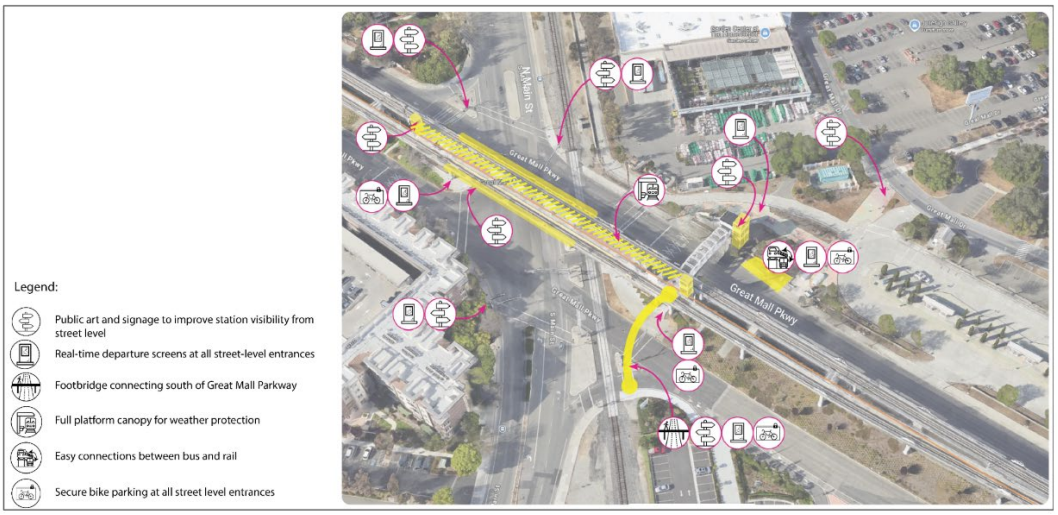


Figure 7-3. Great Mall Station Area Improvements

- **Wayfinding and Signage**
  - (**P17**) Add wayfinding signage between station and major destinations nearby, such as the Great Mall, other commercial areas, trails, future bike/scooter shares, and neighboring Milpitas Transit Center (private property Included).
  - (**P18**) Add maps of the surrounding area at the station. Both on platform and at ground level.
  - (**P20**) Add wayfinding between station and Lower Penitencia Creek, and in residential neighborhoods west of Great Mall Parkway to station via Lower Penitencia Creek.
  - (**T3**) Add signage/branding to the station, complemented by wayfinding directing people to the station
  - (**T6**) Provide directional signage at the station platform directing people toward exits close to their destination.
  - (**PM7**) Provide directional wayfinding from the platform to the Great Mall entrance, and install directional signage and live transit status inside the Great Mall to guide people towards transit.
  - (**B2**) Add bicyclist-scale wayfinding signage to guide users to the station entrance, platform, bicycle parking, nearby destinations, and especially to and from the Great Mall. (Note that the portion of the route between Great Mall Drive and the Great Mall is on private property).
- **Bicycle End-of-Trip Facilities**
  - (**B1**) Add secure, weather-protected bicycle parking facilities near the station entrance.
  - (**B4**) Add curb ramps near the station entrance. Include signage in advance and at curb ramp.
- **Transit Connection & Better Station Environment**
  - (**T1**) Move bus stops to the base of the light rail station (need to take the turn pocket into consideration), add wayfinding between them.
  - (**T2**) Update VTA Bus Stop and Passenger Facilities Design Criteria and Standards to provide better facilities at basic bus stops.
  - (**T4**) Add live transit displays at street level before crossing to the median.
  - (**T5**) Add appropriately-scaled fully-covered platform-continuous weather cover.
  - (**T7**) Conduct a lighting study to determine the appropriate amount of lighting at the station.
  - (**P1**) Add an elevator and bridge from the south side of Great Mall Parkway to the station.
  - (**P19**) Add elevator out-of-service alerts at the station and at the elevator at ground level to raise awareness of available information. VTA provides alerts about elevators out of service on their website and various social media, but riders may not be aware. For safety reasons, notification should be provided on all sidewalk access points before people cross to

get to the median especially for people with mobility challenges. (seniors, handicap, stroller etc.).

- **Pick-Up/Drop-Off (PUDO) Facilities**
  - (**V1**) Develop clearly designated and well-marked drop-off and pick-up zones.
  - (**V2**) Add wayfinding signage and circulation guidance to reduce confusion and unsafe behavior near the station.
- **Placemaking**
  - (**PM1**) Create a street-level presence for the Great Mall Light Rail Station through large bold public art with VTA Great Mall branding to set it apart from Milpitas BART.
  - (**PM3**) Create a mobility hub with amenities at the Station entry. This includes bike lockers, live transit displays, security cameras, regular surveillance, drop-off areas, neighborhood-scale walking maps. Layer in activation with seating areas, public art, appropriate mood-setting lights, background music by local artists, a coffee kiosk, and food trucks.
  - (**PM5**&**PM6**) Create a themed, shaded pathway between the Station and Great Mall with festive lighting and a landscape connecting the two nodes. Add appropriate crosswalk, sidewalk, curb ramps.

7.1.2 Category 2 – Major Intersections

Category 2 targets the critical intersections along the Great Mall Parkway and key intersections within nearby residential neighborhoods that serve schools such as Mabel Mattos Elementary and Pearl Zanker Elementary, as well as trail corridors along Meadow Creek and Lower Penitencia Creek where frequent pedestrian activity are observed.

Great Mall Parkway

The Great Mall Parkway is a major arterial road with high vehicular traffic volumes, high speed, and wide travel lanes. The pedestrian and bicycle experience along Great Mall Parkway is unsafe and unpleasant due to noise, conflicts with vehicles, long crossings, and poor lighting. The recommended improvements aim to calm traffic, improve visibility, and enhance pedestrian and cyclist safety. Key strategies include lane reconfigurations, upgraded lighting, refuge islands, updated pedestrian signals, and protected bicycle infrastructure.

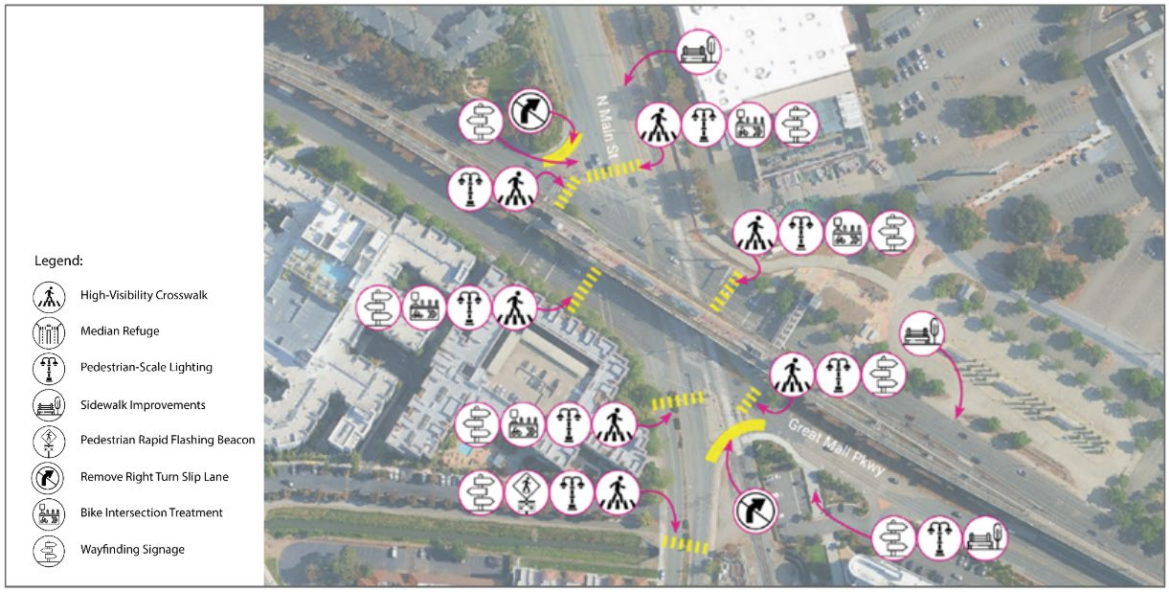


Figure 7-4. Improvement at Great Mall Pkwy and S Main St

- **At Great Mall Parkway/South Main Street Only**
  - (**P9**) Conduct a signal operation study to evaluate changing yellow and red clearance to ensure left-turn vehicles clear crosswalk before pedestrians get the walk signal.
  - (**P12**) Conduct a lighting study to determine the appropriate amount of lighting to add under LRT track at the station.
  - (**P13**) Repair damaged sidewalks and remove obstructions along the west side of South Main Street just south of Great Mall Parkway.
  - (**P16**) Relocate the pedestrian beacon at the southeast corner to a location with better visibility.
- **At Multiple Intersections along Great Mall Parkway**
  - (**P3**&**P5**) Increase the distance between the vehicle stop bar and the crosswalk to improve safety, and make crosswalk perpendicular to the road to reduce crossing distance (at South Main Street, McCandless Drive, Center Point Drive, and Montague Expressway intersections).
  - (**P4**) Enhance lighting at the intersection and on the crosswalks to make crossing pedestrians more visible to vehicles (at South Abel Street, South Main Street, McCandless Drive, Center Point Drive, and Montague Expressway intersections).
  - (**P6**&**P7**) Add pedestrian refuge islands for crossing Great Mall Parkway, potentially by extending median under the elevated track, and conduct a signal operation study to evaluate two-stage pedestrian crossing (at South Main Street, McCandless Drive, Center Point Drive, and Montague Expressway intersections).
  - (**P7**) Conduct a signal operation study to evaluate pedestrian recall where a walk signal is provided automatically with every cycle (at South Main Street and McCandless Drive intersections).

  - (**P15**) Fill in slip lanes and make vehicles turn at intersection, or narrower lanes and change angles so drivers must slow down, and add raised crosswalks across slip lanes (at South Abel Street, South Main Street, and Montague Expressway intersections).
  - (**B3**) Conduct a signal operation study to evaluate adding dedicated bike lanes and prohibit right turn on red (at South Abel Street, South Main Street, McCandless Drive, Center Point Drive, and Montague Expressway intersections).

Residential Neighborhoods

These recommendations prioritize calming traffic and closing gaps in the neighborhood pedestrian infrastructure, and enhancing pedestrian safety. These interventions are critical for creating a safer and more walkable environment that supports daily travel needs of residents, students, and trail users.

- **(P11)** Add missing crosswalks - all new/restriped crosswalks should be high visibility.
  - Great Mall Drive & South Main Street (south leg)
  - Capitol Avenue & South Abel Street (south leg)
  - S Main Street & South Abel Street (south leg)
  - Great Mall Drive & Fairlane Drive (west and south legs)
- **(P14)** Install bulbouts where possible, raised crosswalks, high-visibility crosswalk markings, lighting and pedestrian flashing beacon where needed.
  - McCandless Drive & Meadow Creek
  - McCandless Drive & Newbury Street
  - McCandless Drive & DeLong Lane/School Entrance
- **(P15)** Fill in slip lanes and make vehicles turn at intersection, or narrower lanes and change angles so drivers must slow down, and add raised crosswalks across slip lane.
  - Curtis Avenue & Hammond Way
  - South Main Street & South Abel Street

7.1.3 Category 3: Corridor-wide Improvements

These recommendations address key linear elements throughout the study area, including major roadways, trails, and the VTA access road. The focus is on long-term infrastructure investments that enhance pedestrian and bicycle safety, and support placemaking objectives. Pedestrian improvements include reducing crossing distances and filling sidewalk gaps to improve connectivity. Bicycle enhancements emphasize physical separation from vehicular traffic and the development of new bike lanes. Placemaking strategies leverage natural and built features along the creek corridors and the VTA access road to create a more inviting public realm.

- **Along Great Mall Parkway**
  - (**P2**&**B5**) Narrow vehicle travel lanes to 11', and add physical barriers (concrete) between bike lanes and vehicle travel lanes. This will shorten pedestrian crossings by 6-10 feet in either direction.
  - (**P10**) Add missing sidewalk (long term), or add signage to show pedestrian detour due to missing sidewalk (short term). Location: southside between McCandless Drive and Montague Expressway
- **Along South Main Street**
  - (B5) Add physical barriers between bike lanes and vehicle travel.
- **Along Great Mall Drive (Private Road)**
  - (**B5**) Add bike lanes along the ring road surrounding the Mall, and enhance the perpendicular connections to public roads and the Mall
- **Along the Creek Trails**
  - (**PM2**) Develop trailheads at the following locations featuring attractive landscaping, prominent entry marquees, and essential amenities. These amenities should include trail and transit maps, real-time transit displays, comfortable shaded seating, community message boards, conveniently located trash receptacles, secure bike racks, and aesthetically pleasing lighting.
    - Penitencia Creek & Great Mall Parkway
    - Penitencia Creek & Meadow Creek
    - Meadow Creek & McCandless Drive
    - Along the VTA access road
- (**PM3**) The VTA access road provides an opportunity to create a direct and shorter walking path, improve the connection from residential communities on North Main Street to the VTA Great Mall Station. Enhance security by adding cameras, emergency call boxes, and appropriate lighting. Activate this currently underutilized area by layering in landscape features, pavement art, festive lighting and food trucks to attract more people.

8 Prioritization and Implementation

This chapter presents the implementation plan for the recommended Great Mall Station access improvements. To inform decision-making and guide future implementation strategies, these improvements were evaluated based on planning-level cost estimates, phasing considerations, and prioritization scores. The following sections detail the approach, assumptions, and results.

8.1 Prioritization Framework

The project team developed a prioritization framework in consultation with VTA, organizing the multimodal access recommendations into geographic groupings, and then developed scoring criteria for each project as described below. The geographic categories were developed for the outreach process and are retained for the prioritization framework. Prioritization of the recommendations was evaluated individually and also aggregated within each category.

- **Category 1: Great Mall Station Area-** focuses on the Great Mall Station, TOD site, and nearby connections leading to major destinations, like Great Mall. Recommendations cover wayfinding, pedestrian and bicycle access, facilitate seamless transfers between modes, and placemaking.
- **Category 2: Major Intersections-** includes two sets of key intersections – one set targets the critical intersections along the Great Mall Parkway, and the recommended improvements aim to calm traffic, improve visibility, and enhance pedestrian and cyclist safety. The other set includes key intersections within nearby residential areas that serve schools and trails where frequent pedestrian activities are observed. The recommendations prioritize calming traffic, closing gaps in pedestrian infrastructure, and enhancing pedestrian safety.
- **Category 3: Corridors Wide Improvements-** are the corridors within the study area, and the recommendations focus on long-term infrastructure investments that enhance pedestrian and bicycle safety, and support placemaking objectives along key linear elements including major roadways, trails, and the VTA access road.

8.1.1 Project Scoring Criteria

To establish priorities, the recommended improvements were evaluated and scored based on the following eight criteria:

- **Improves Connectivity to Transit** – how effectively a project enhances walking and biking connections to the station, from closing major gaps to providing supportive amenities
- **Improves Accessibility** – whether a project removes barriers and enhances ADA access for seniors, people with disabilities, and families
- **Community Integration** – how well a project connects surrounding neighborhoods through enhanced public spaces and green infrastructure
- **Improves Safety** – how a project addresses safety needs, from high-collision locations to general pedestrian and traffic improvements
- **Coordination With Planned Projects** – whether a project aligns with or supports other planned efforts by VTA or the City of Milpitas
- **Constructability** – how feasible a project is to build, based on jurisdiction, required coordination, and need for additional study
- **Proximity to Station** – how close a project is to the station
- **Community Preference** – how much support a project received during public outreach, based on the number of community votes

8.1.2 Scoring Methodology

Based on the above evaluation criteria, priority scores were developed using the methodology detailed in the Table 8-1 below.

Criterion	Description	Scoring
Improves Connectivity to Transit	• High: Closes a critical infrastructure gap and is essential to maintain pedestrian and bicycle access, particularly with potential new development at the station. • Medium: Improves general connectivity in the station area, such as adding new midblock crossings. • Low: Enhances or complements connectivity, for example through wayfinding or amenities.	• High = 1 • Medium = 0.6 • Low = 0.3

Criterion	Description	Scoring
Improves Accessibility	• Eliminate barriers to ADA access, such as closing sidewalk gaps, removing obstructions, and installing elevators.	• Yes = 1 • No = 0
Community Integration	• Integrates nearby communities through improving public spaces and green infrastructure.	• Yes = 1 • No = 0
Improves Safety	• High: Addresses locations with high collision activity. • Medium: Responds to safety issues identified during field reviews or public engagement. • Low: Provides general safety enhancements.	• High = 1 • Medium = 0.6 • Low = 0.3
Coordination With Planned Projects	• Aligns with other VTA or City of Milpitas plans or planned projects	• Yes = 1 • No = 0
Constructability	• High: Within VTA's jurisdiction and are easy to construct without additional study • Medium: Requires coordination with other jurisdictions like the City of Milpitas. • Low: Requires additional study or design.	• High = 1 • Medium = 0.6 • Low = 0.3
Proximity to Station	• High: The station or the intersection of Great Mall Parkway/S Main Street • Medium: Within 1,000 feet or along Great Mall Parkway • Low: Other surrounding neighborhoods	• High = 1 • Medium = 0.6 • Low = 0.3
Community Preference (bonus)	• High: Received more than 100 votes in public outreach	• High = 1 • Medium = 0.6

Criterion	Description	Scoring
	• Medium: Received 50-100 votes in public outreach • Low: Received less than 50 votes in public outreach	• Low = 0.3

Table 8-1. Scoring Methodology

Note: Community preference was quantified based on an in-person pop-up event and an online survey, both of which asked participants' preference on prioritizing 16 different improvements. A total of 1,514 votes were received.

A normalized total score was then calculated. If an improvement received community votes during the pop-up event or in the online survey, the total score was based on eight criteria. If it was not included in public outreach, the total score was based on the remaining seven criteria. Below are the top high-priority improvements for each category as a result of the evaluation. Detailed scores for individual improvements are included in **Appendix D**.

8.1.3 Cost Estimates

In addition to priority scores, planning-level implementation costs were also estimated for each recommendation based on unit cost data from previous studies, and adjusted for inflation (see **Appendix F**). These estimates are for preliminary planning purposes and should be updated periodically. Unless otherwise noted, costs exclude construction inspection, engineering, geotechnical analysis, right-of-way acquisition, and/or utility relocation. Detailed assumptions and cost estimates for individual improvements are listed in **Appendix E**, including itemized costs for each recommended improvement.

8.2 Top Scoring Projects

There are 22 improvements recommended for Category 1 – Great Mall Station & Surrounding Area, and Table 8-2 lists the top six with a priority score of 0.5 or higher.

#	Recommendations	Location	Cost Estimates	Priority Score
P1-	Add elevator and bridge from South side of Great Mall Parkway to VTA light rail station	Great Mall Parkway at S Main Street, west side	$3,000,000-$10,000,000	0.70

#	Recommendations	Location	Cost Estimates	Priority Score
PM6-	Add appropriate crosswalk, sidewalk, curb ramps between Great Mall Station and the Great Mall entrance	Great Mall Station and Surrounding Area	$100,000-$150,000	0.69
T1-	Move bus stop to base of light rail station (need to take the turn pocket into consideration), add wayfinding between them	Great Mall Station	$6,000-$60,000	0.66
PM3-	Create a mobility hub with amenities at the Station Entry. This includes bike lockers, live transit displays, security cameras, regular surveillance, drop-off areas, neighborhood-scale walking maps. Layer in activation with seating areas, public art, appropriate mood-setting lights, background music by local artists, a coffee kiosk, and food trucks.	Great Mall Station and Surrounding Area	$2,000,000-$5,000,000	0.61
P19-	VTA provides alerts about elevators out of service on their website and various social media, but riders may not be aware. Provide signage at station and at elevator at ground level to raise awareness of available information. For safety reasons, notification should be provided on all sidewalk access points before people cross to get to median especially for people with mobility challenges. (Seniors, handicap, stroller etc.)	Great Mall Station	$200-$800	0.56
PM5-	Create a themed, shaded pathway with festive lighting and a landscape connecting the Station and the Great Mall.	Surrounding Area	$250,000-$2,500,000	0.54

Table 8-2. High Priority Projects for Great Mall Station

There are 43 improvements recommended for Category 2– Major Intersections, and Table 8-3 lists the top nine with a priority score of 0.5 or higher.

#	Recommendations	Location	Cost Estimates	Priority Score
P13-	Repair damaged sidewalks and remove obstructions	West side of S Main Street just south of Great Mall Parkway	$3,100-$4,120	0.70
P11-	Add missing crosswalks - all new/restriped crosswalks should be high visibility ("zebra")	Great Mall Drive & S Main Street (south leg)	$12,000-$30,000	0.60
P11-	Add missing crosswalks - all new/restriped crosswalks should be high visibility ("zebra")	S Main Street & S Abel Street (south leg)	$12,000-$30,000	0.60
P11-	Add missing crosswalks - all new/restriped crosswalks should be high visibility ("zebra")	Great Mall Drive & Fairlane Drive (west and south legs)	$24,000-$60,000	0.60
P11-	Add missing crosswalks - all new/restriped crosswalks should be high visibility ("zebra")	Capitol Avenue & S Abel Street (south leg)	$12,000-$30,000	0.60
P9-	Conduct a signal operation study to evaluate changing yellow and red clearance to ensure left-turn vehicles clear crosswalk before pedestrians get walk signal.	Great Mall Parkway & S Main Street	$6,000-$10,000	0.53
P6-	Add pedestrian refuge islands for crossing Great Mall Parkway (potentially by extending median under the elevated track).	Great Mall Parkway & McCandless Street	$24,000-$43,200	0.51
B3-	Conduct a signal operation study to evaluate adding dedicated bike phase and prohibit turn on red.	Great Mall Parkway & S Main Street	$6,000-$10,000	0.51

#	Recommendations	Location	Cost Estimates	Priority Score
B3-	Conduct a signal operation study to evaluate adding dedicated bike phase and prohibit turn on red.	Great Mall Parkway & McCandless Street	$6,000-$10,000	0.51

Table 8-3. High Priority Projects for Intersections

There are seven improvements recommended for Category 3 – Corridor-Wide recommendations, and Table 8-4 lists the top three with a priority score of 0.5 or higher.

#	Recommendations	Location	Cost Estimates	Priority Score
P13-	Repair damaged sidewalks and remove obstructions	West side of S Main Street just south of Great Mall Parkway	$3,100-$4,120	0.70
P11-	Add missing crosswalks - all new/restriped crosswalks should be high visibility ("zebra")	Great Mall Drive & S Main Street (south leg)	$12,000-$30,000	0.60
P11-	Add missing crosswalks - all new/restriped crosswalks should be high visibility ("zebra")	S Main Street & S Abel Street (south leg)	$12,000-$30,000	0.60

Table 8-4. High Priority Projects for Corridors

8.3 Interagency Coordination Considerations

Implementing access improvements will require close coordination among agencies and stakeholders to maintain consistency, efficiency, and cost-effectiveness. Since several roadway and bikeway projects in the station area overlap with efforts led by the City of Milpitas and the County of Santa Clara, clearly defining agency roles and close collaboration between agencies is especially critical.

VTA will lead improvements located on VTA-owned parcels as well as the pedestrian footbridge and other on-site access facilities. VTA should work closely with the City to align design standards, ensure continuous bicycle infrastructure, and integrate feasibility studies – particularly for Class IV protected bikeways and other permanent facilities.

The City of Milpitas will take the lead on improvements located within the City's right-of-way, including roadway, bikeway, and signal upgrades. Many of these projects can be incorporated into the City's Capital Improvement Program (CIP), and the city will also be responsible for implementing any signal timing changes that result from the recommended signal timing study.

BART may support grant applications for improvements that enhance multimodal access to the regional transit network.

For improvements located on **County-maintained roadways**, elements such as repaving, roadway upgrades, or pedestrian improvements may be incorporated into Santa Clara County's CIP projects. In addition, VTA and Santa Clara County have previously partnered on grant applications and may continue collaborating on funding strategies for shared roadway or bikeway projects.

For access recommendations situated on private property like Great Mall, delivery of access improvements will depend on coordination with the respective landowners.

Since the TOD project is still in the planning stages, VTA may also require certain access improvements as conditions of developer approvals. These improvements will shape both private and public access to the TOD site and the transit station. Early coordination is therefore critical to prevent connectivity gaps and to ensure consistency with VTA's access objectives.

8.4 Phasing Considerations

Improvements are grouped into **immediate-term, short-term, and mid-term** phases based on factors such as cost, complexity, and anticipated development timelines.

Immediate-term improvements can usually be delivered within a year. These projects are lower in cost, use fewer materials, or respond to immediate safety concerns. Immediate-term examples include:

- Provide wayfinding and directional signage, maps, and live transit display
- Repair damaged sidewalks and remove obstructions
- Relocate bus stops
- Increase the distance between the vehicle stop bar and the crosswalk

Short-term improvements may take one to two years. They can still be done relatively quickly but often involve higher costs, more materials, or more coordination with other entities. Short-term examples include:

- Lighting for crosswalks and under the LRT track
- High-visibility crosswalks
- Signal improvements
- Placemaking such as LRT branding, themed pathway, and trailhead features

Mid-term improvements generally take two or more years. They often require larger infrastructure changes, more funding, or additional technical studies. Mid-term examples include:

- Install Class IV protected bike lanes
- Construct new bridge and elevator on the southwest side of the station.
- Add pedestrian refuge islands
- Fill in slip lanes

A mid-term project may be implemented sooner, depending on whether the project is already planned or funded as part of another project. **Appendix F** includes phasing considerations for each improvement.

8.5 Potential Funding Opportunities

Securing funding is essential to deliver access improvements at the Great Mall Station. The federal, state, and local programs below support projects that enhance multimodal connectivity, accessibility, safety, and sustainability, and could be funding sources for the recommended improvements.

8.5.1 Major Grant Programs

- **Transit and Intercity Rail Capital Program (TIRCP) -** funds large-scale projects that modernize and expand transit and rail systems, including station upgrades, platform enhancements, and first/last-mile connections.
- **All Stations Accessibility Program (ASAP)** focuses on making existing stations fully ADA-compliant.
- **FTA Section 5310 Grants** - Improves mobility for seniors and people with disabilities.
- **Consolidated Rail Infrastructure and Safety Improvements (CRISI) -** Supports rail safety, and station access.
- **Safe Streets and Roads for All (SS4A)** - Supports local Vision Zero initiatives and infrastructure improvements for safer streets, including sidewalks and intersection upgrades.
- **MTC One Bay Area Grant (OBAG 4)** is a Metropolitan Transportation Commission (MTC) program for FFY 2026/27–2029/30, expected to provide over $800M in federal funds to Bay Area transportation projects.

8.5.2 State and Local Funding Sources

- **Senate Bill 1 (SB 1) -** generates approximately $5 billion annually for transportation improvements, including station access and safety upgrades.
- **Active Transportation Program (ATP) -** funds projects that promote walking, biking, and multimodal access to stations, including sidewalks, pathways, and bike storage.

- **Low Carbon Transit Operations Program (LCTOP) -** supports projects that reduce greenhouse gas emissions and improve connectivity, often funding first/last-mile solutions and bike/transit integration.
- **Affordable Housing and Sustainable Communities Program (AHSC)** - funds projects integrating affordable housing with sustainable transportation to reduce greenhouse gas emissions.