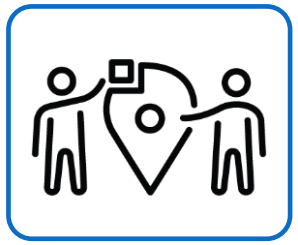
Appendix A: Community Engagement

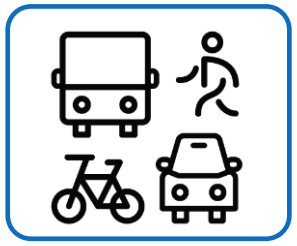
Community Engagement Goals

Getting the word out about the Access Study



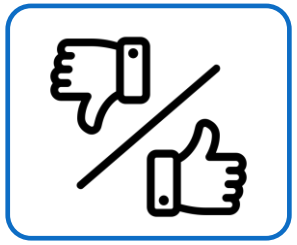
Understanding what's going on within the Study Area

Fostering Strategic Partnerships with Stakeholders



Understanding User-Preference and Use Patterns, often technically undocumented, within the Study Area

Building Trust with Community Members



Receiving User Feedback on Issues and Opportunities

Outreach Methods - Mailers, Flyers, A-Frames

- Mailers sent to local residents and businesses owners
- Flyers distributed at businesses, schools and organizations within a half-mile radius of the station
- A-frame signs placed at the transit center to attract commuters
- Targeted email outreach to key stakeholder groups
- Social media promotion by:
  - VTA
  - Forward City Labs
  - Partnering community-based organizations (CBOs)

Community Open House:
VTA Great Mall Transit-Oriented Development

Valley Transportation Authority
3331 North First Street San José, CA 95134

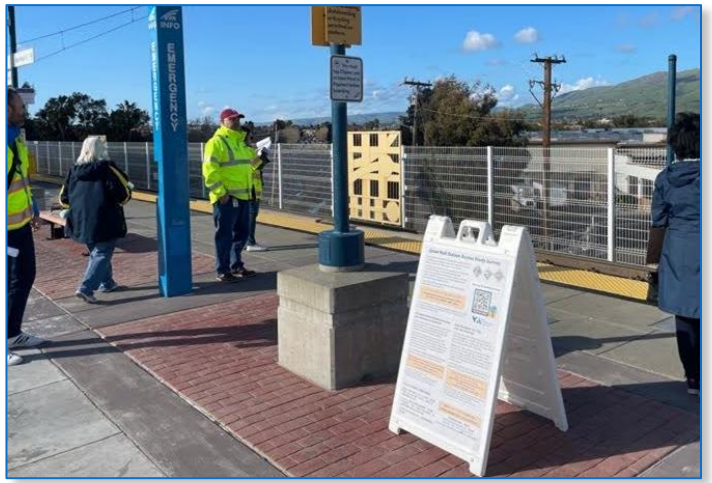
VTA invites you to an open house to share information about a proposed Transit-Oriented Development (TOD) at VTA's Great Mall transit center.

VTA is redeveloping its transit center and Park & Ride lot on Great Mall Drive in Milpitas. The open house will provide an opportunity to learn about VTA's TOD Program and development opportunities, including affordable housing, at this location. Join us to share your thoughts on the future of your neighborhood!

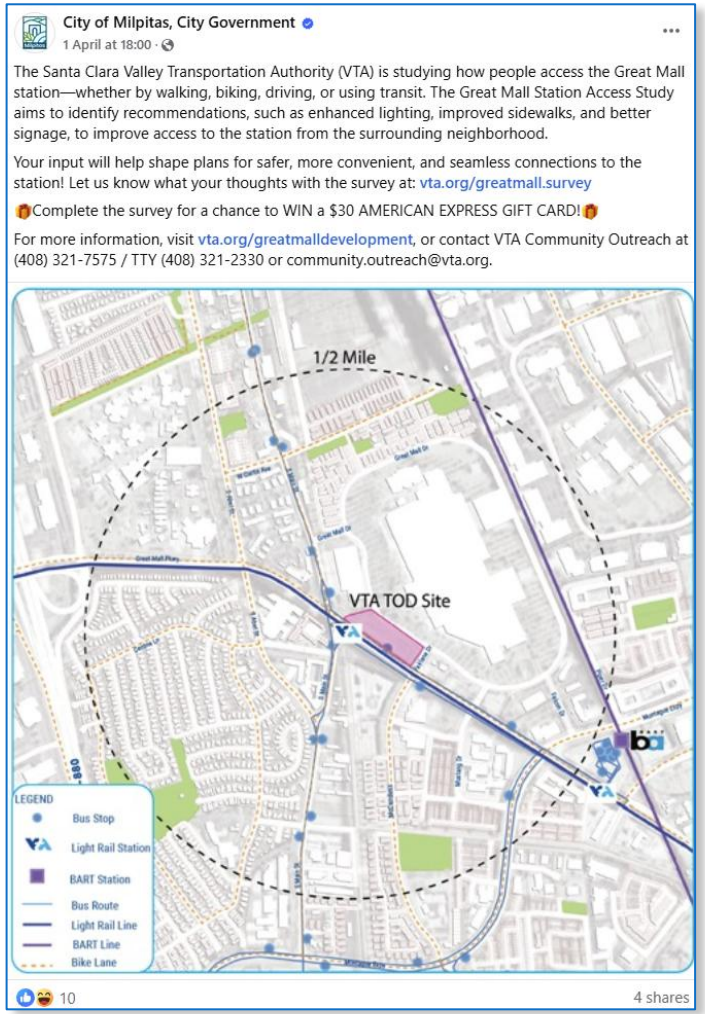
Spanish, Vietnamese, and Chinese language interpretation services will be available. Individuals who require other language services or accommodation can contact VTA Community Outreach at (408) 321-7575/TTY (408) 321-2330, or email community.outreach@vta.org by 1/16/2025. Additional information is available at vta.org/greatmalldevelopment.

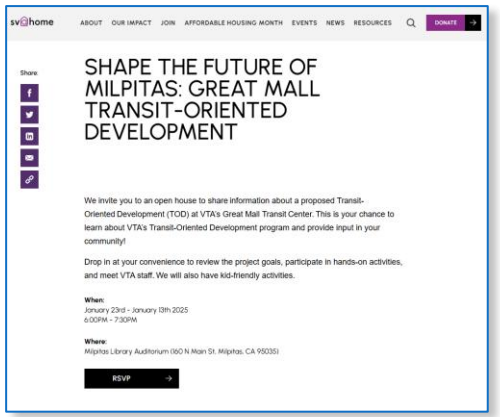
January 23, 2025
6:00 - 7:30 pm
Milpitas Library Auditorium
160 N. Main Street
Milpitas, 95035

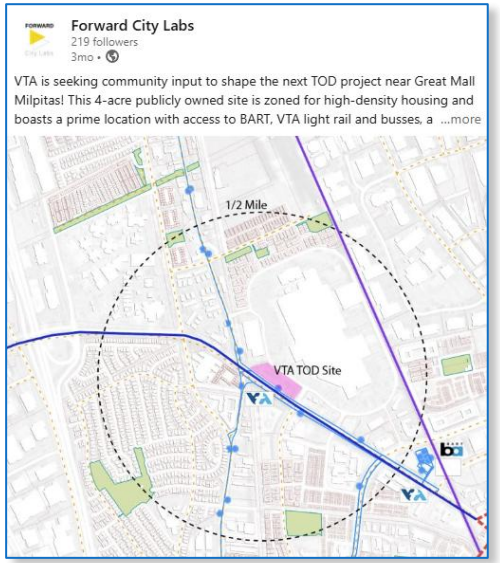
Register Here!
Regístrese aquí
Đăng Ký Tại Đây
請在此登記
GreatMallTOD.eventbrite.com



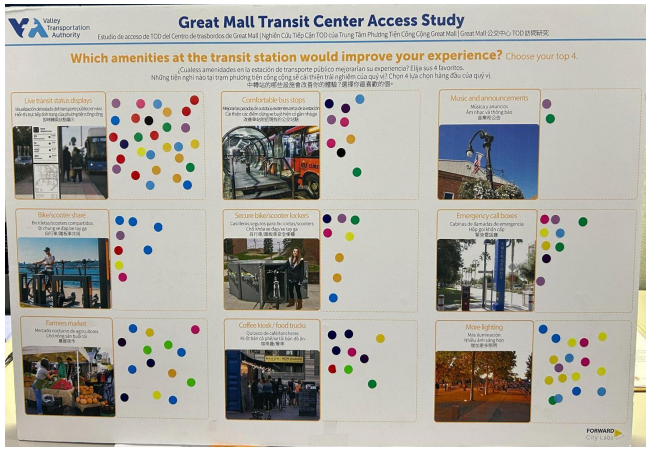
Outreach Methods – Social Media Promotions

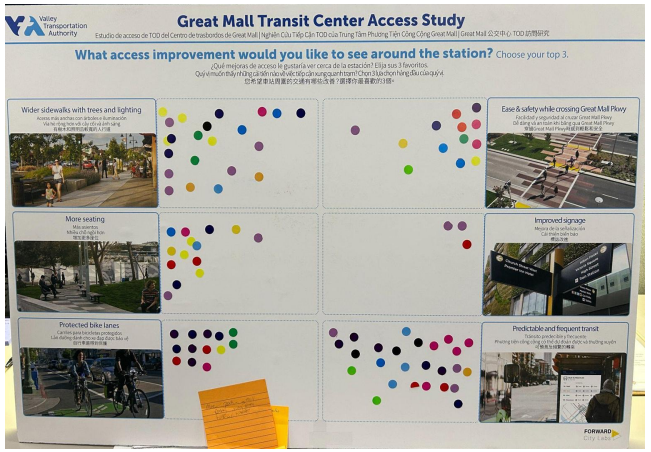






Engagement Tools





Interactive Boards

Interactive Map Tool

Challenges and Improvements

What challenges do you encounter in accessing the Station? Choose your top 5.

- ☐ It's unclear how to reach the light rail platform from the street
- ☐ There is no direct route to the station/I find it challenging to find my way there
- ☐ It is unclear when the next train will arrive when you are at street level
- ☐ Vehicles don't yield when making right turns
- ☐ I have to cross wide, high-traffic streets, which feels unsafe
- ☐ Poor lighting makes transit feel unsafe at night
- ☐ Walking or biking through isolated areas feels unsafe
- ☐ Bike lanes do not provide enough protection from fast-moving traffic
- ☐ Bike routes to the station have gaps, making it access difficult
- ☐ The sidewalks are very exposed, noisy and have a lack of shade, making walking uncomfortable
- ☐ There are no benches or comfortable places to rest on the way to/from the station

What access improvements would you like to see around the station? Choose your top 3.

- ☐ Wider sidewalks with tree, lighting, and seating
- ☐ Well-marked and shorter crosswalks
- ☐ Mid-block crossing with pedestrian signals
- ☐ Traffic calming measures to slow vehicles
- ☐ Better signage directing people to station entrances
- ☐ Protected bike lanes
- ☐ More frequent, reliable, and well-connected transit

What challenges do you encounter at the Station? Choose your top 3.

- ☐ It's hard to find the light rail station
- ☐ Lack of signage at the station entrance makes navigation confusing
- ☐ Reaching the light rail station requires climbing three levels and elevators are often not well-maintained
- ☐ I don't feel safe waiting at the station
- ☐ There's not enough shade and weather protection while waiting for the train
- ☐ There's not enough seating while waiting
- ☐ Lack of secure bike parking

Which amenities at the transit station would improve your experience? Choose your top 4.

- ☐ Live transit arrival displays
- ☐ Clear directional signage for key destinations upon arrival
- ☐ Comfortable waiting areas with seating, shade, and weather protection
- ☐ Bike and scooter share options
- ☐ Secure bike and scooter lockers
- ☐ Real-time bus/train transfer coordination
- ☐ Music and announcements at all levels
- ☐ Increased security presence
- ☐ Emergency call boxes
- ☐ Better lighting throughout the station
- ☐ Public art and interactive spaces

Other: _____

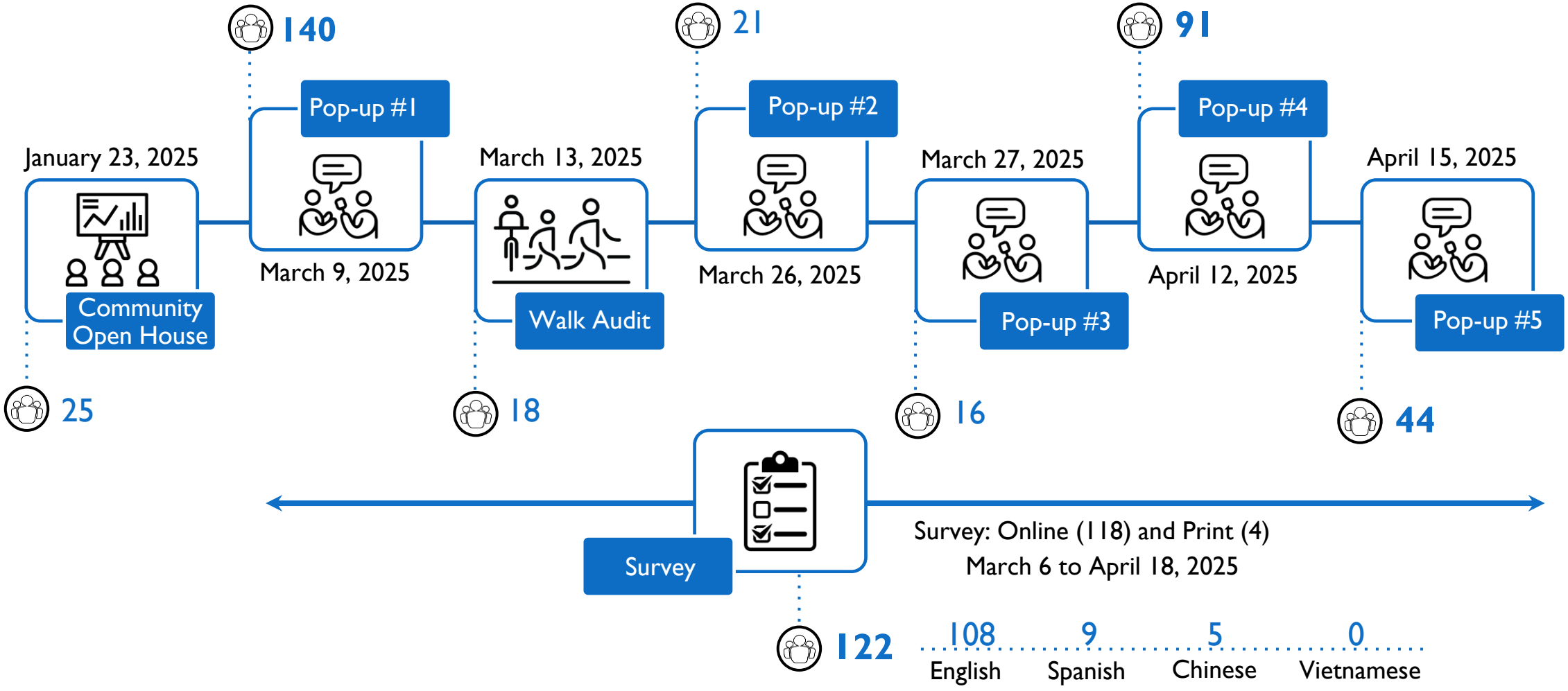
Form-Based Questions

Great Mall Station Access Study

Engagement Summary
Phase I

Phase I Engagement Timeline

Phase I Engagement
477



Community Open House

Milpitas Farmers Market Pop-up

Milpitas Library Pop-up

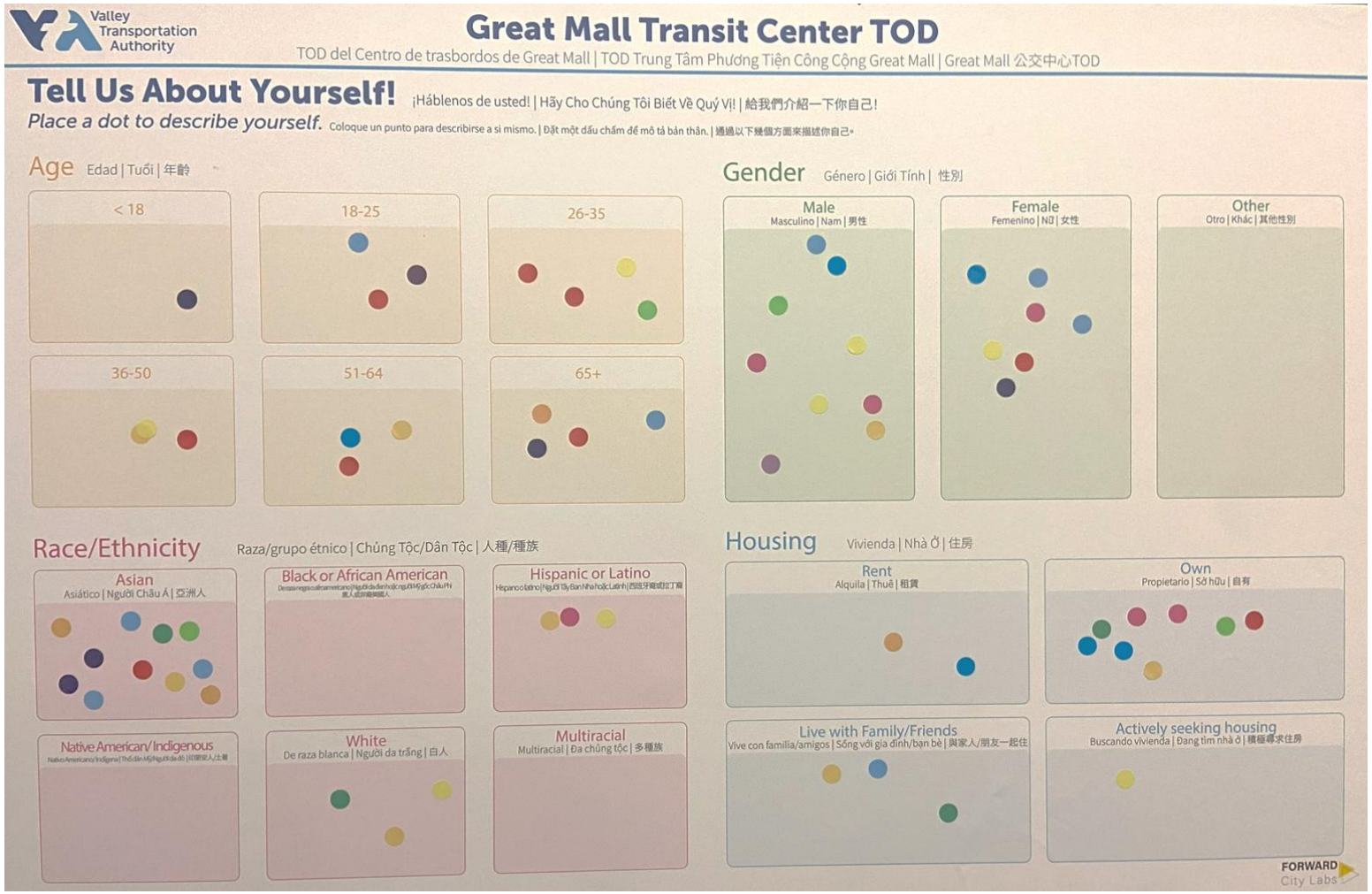
Trader Joe's Pop-up

Murphy Park (Earth Day) Pop-up

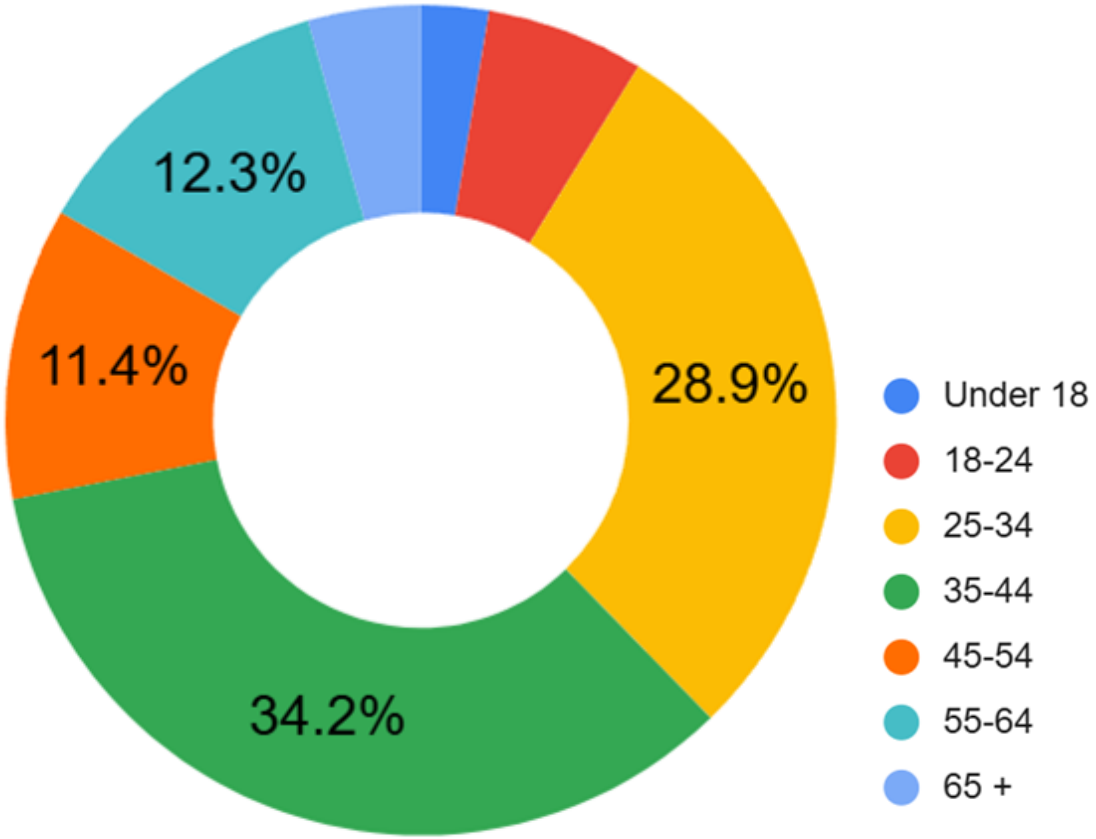
Milpitas Transit Station Pop-up

Demographic Summary

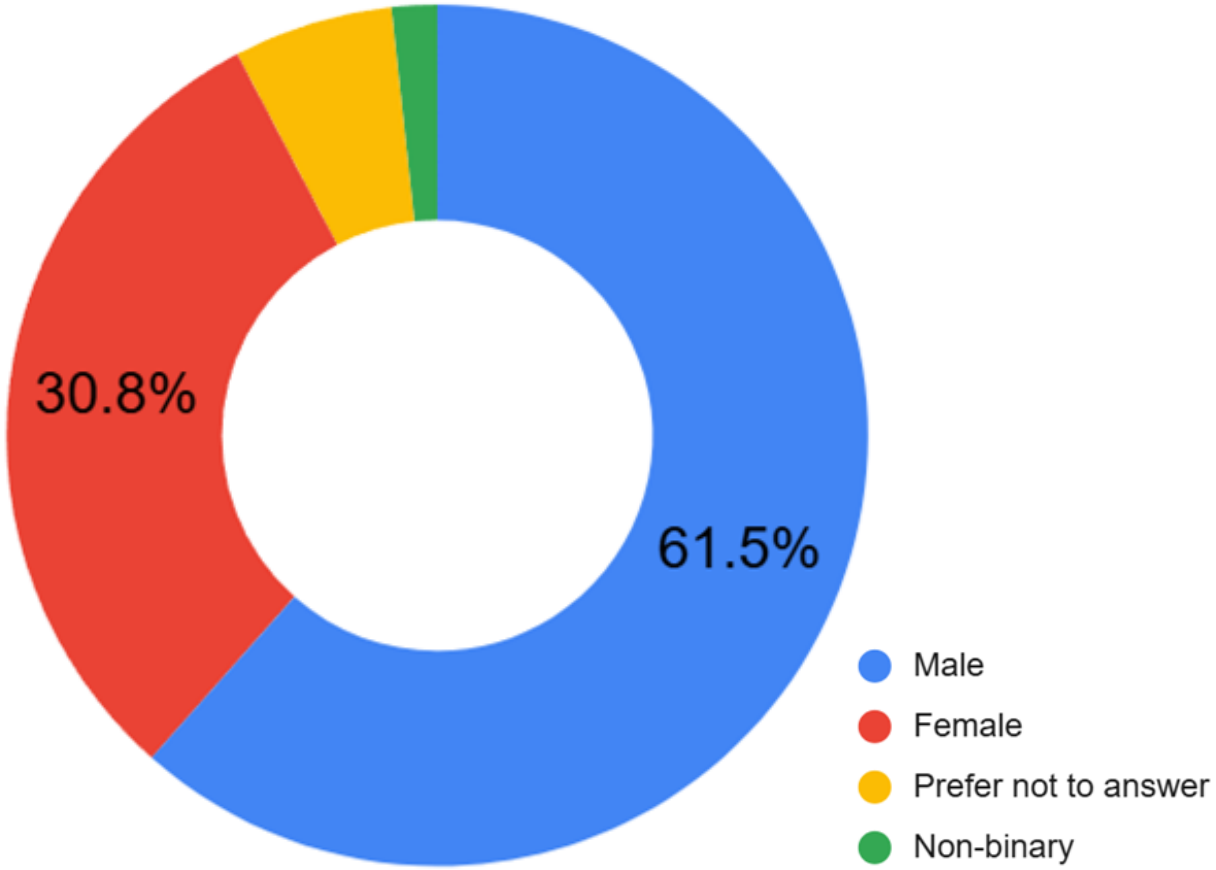
- Majority respondents were **adults**, consistent with census data
- Majority **Asian (English-speaking)** respondents, consistent with 81% Asian population reflected in the census data
- Most respondents are **homeowners**, matching local homeownership rates
- More male respondents than female respondents.



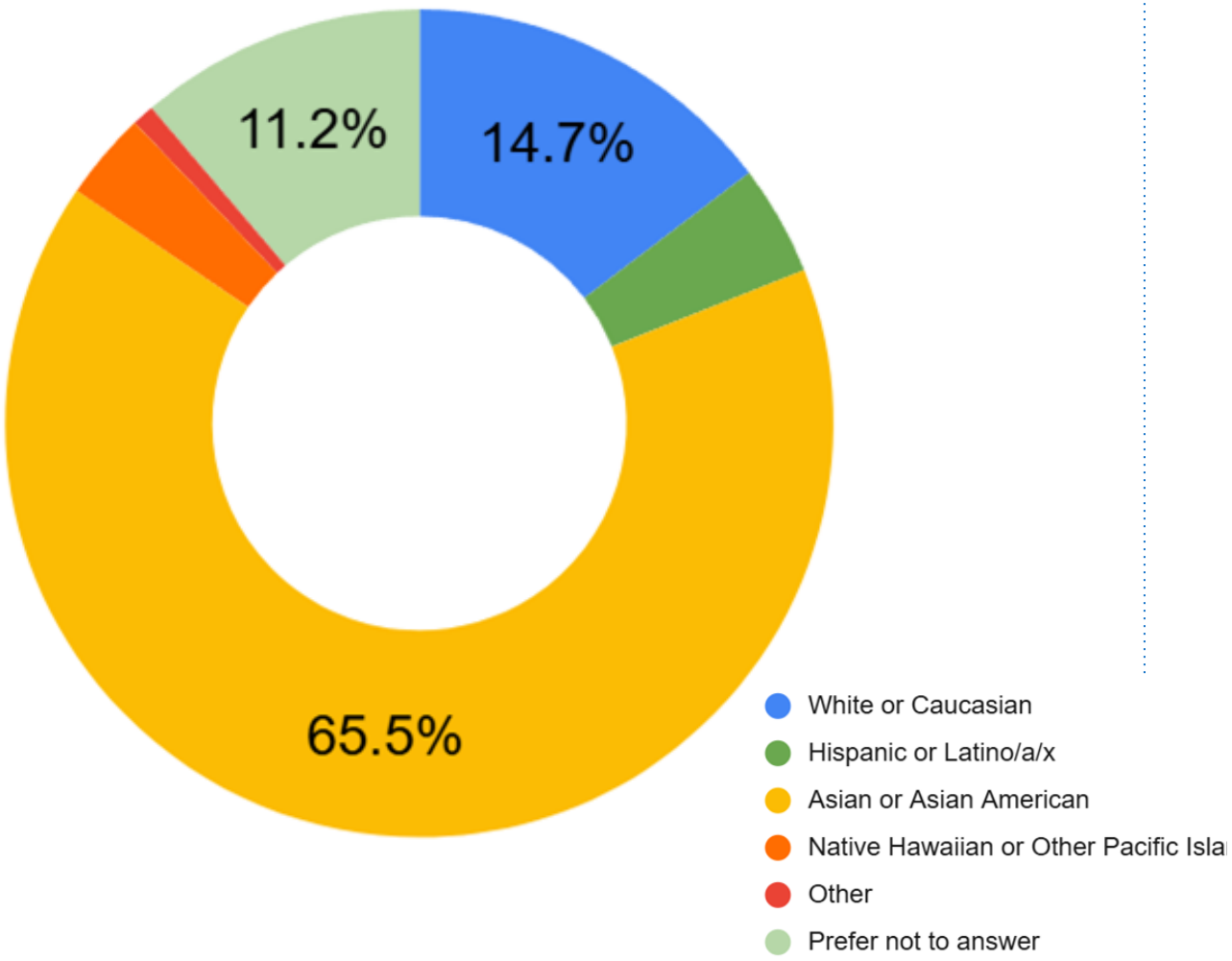
Age


12.3%
11.4%
28.9%
34.2%
Under 18
18-24
25-34
35-44
45-54
55-64
65 +

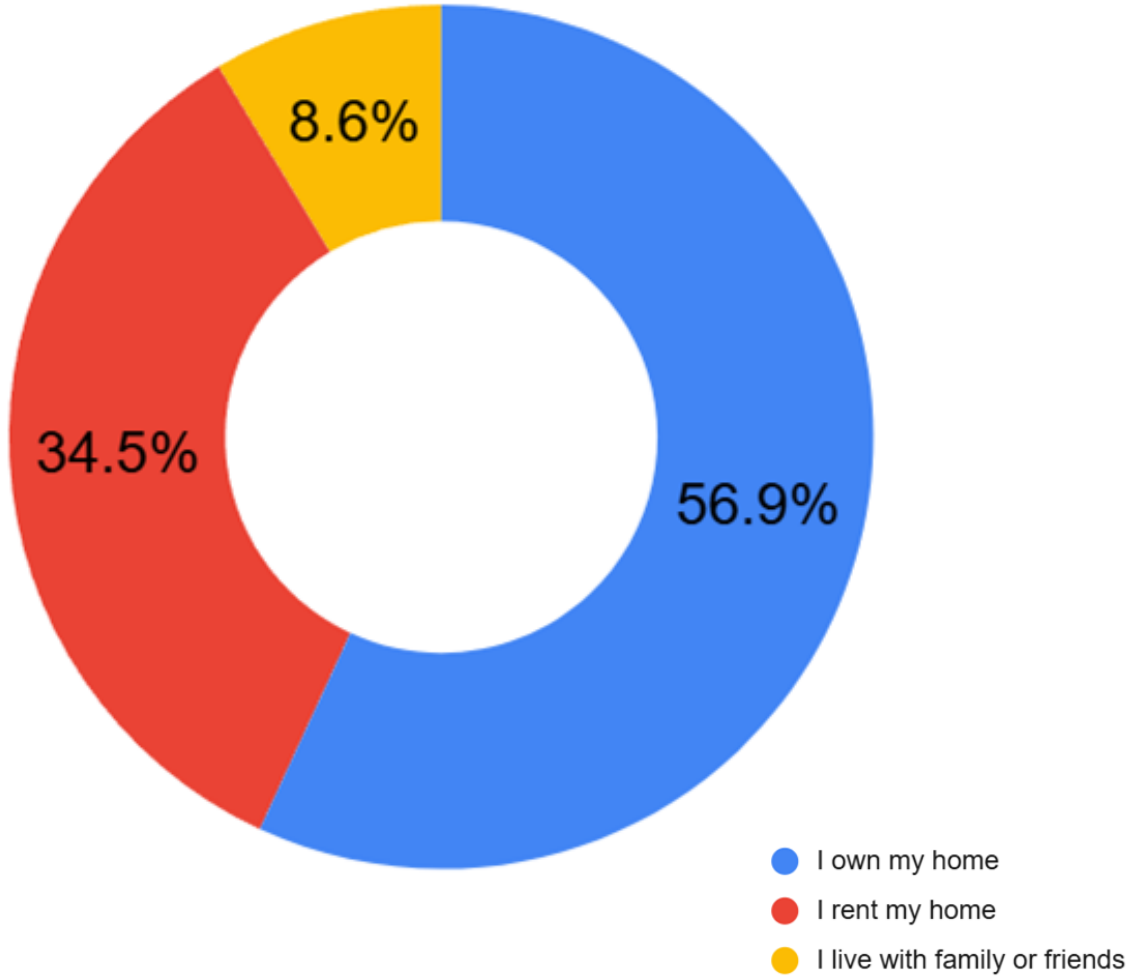
Gender


30.8%
61.5%
Male
Female
Prefer not to answer
Non-binary

Ethnicity/Race

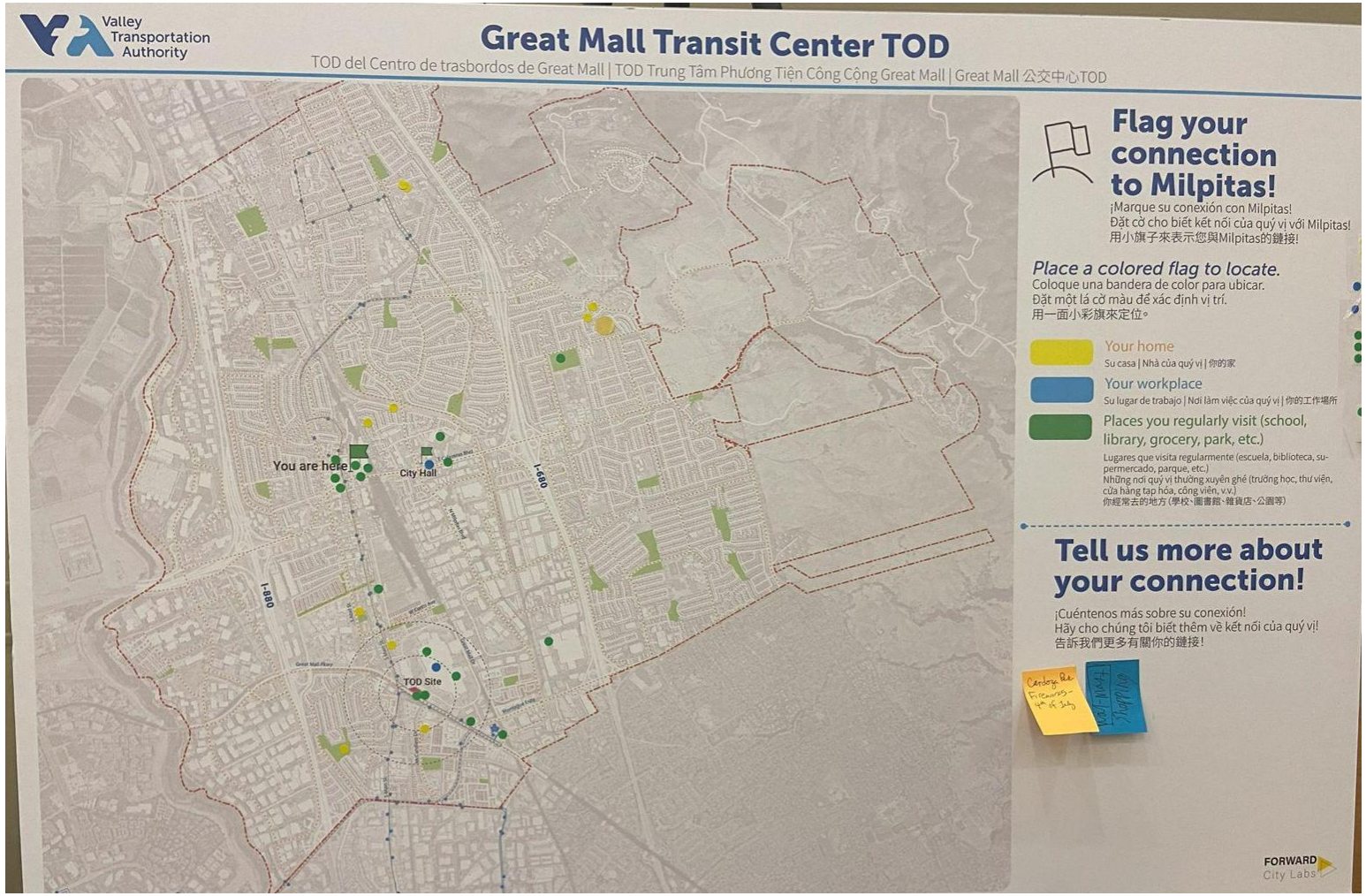


Current Housing Situation



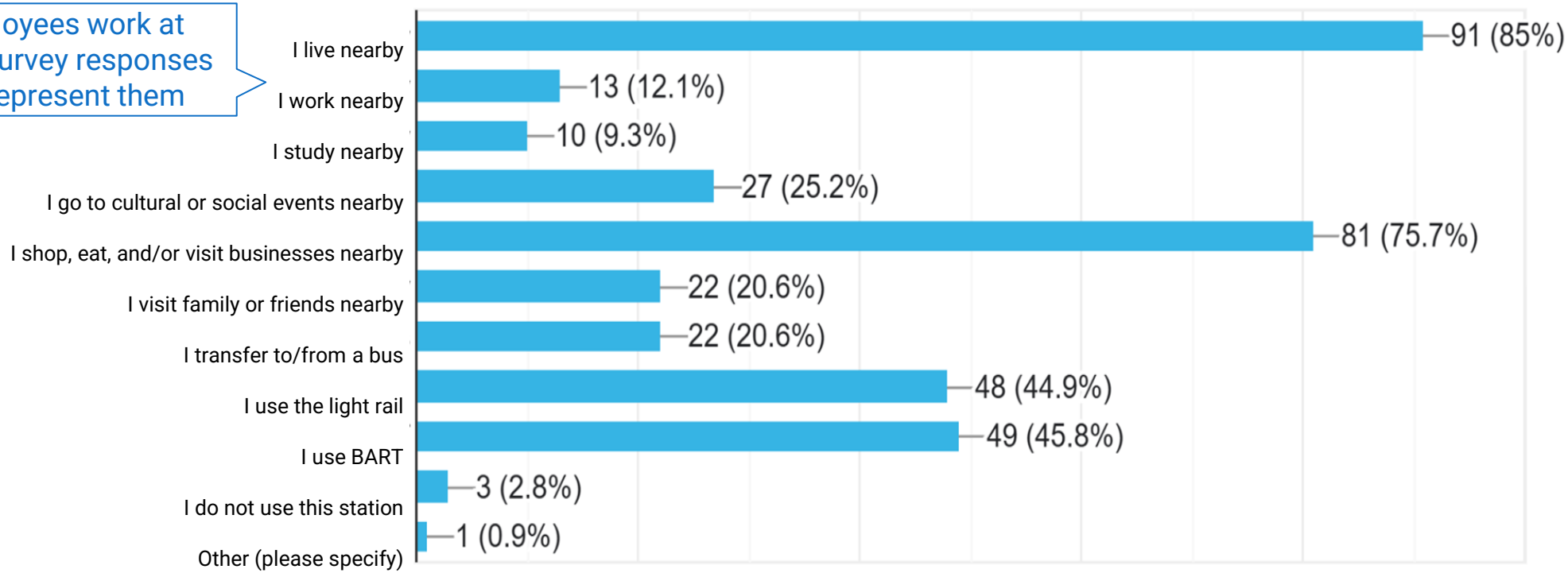
Use Pattern Summary

- **Majority of respondents live and shop near Great Mall Station**, indicating strong input from local residents.
- **Limited input from people working nearby**, including Great Mall employees, highlights a gap in the survey's reach to a key user group that may have different transit needs and schedules.
- **High proportion of respondents who walk to the station** suggests that the survey primarily engaged nearby residents rather than regional visitors, shoppers, or employees of the mall, which may skew results toward hyperlocal concerns.



What activities do you typically do within the Great Mall Station project area (approximately within ½ mile radius)?

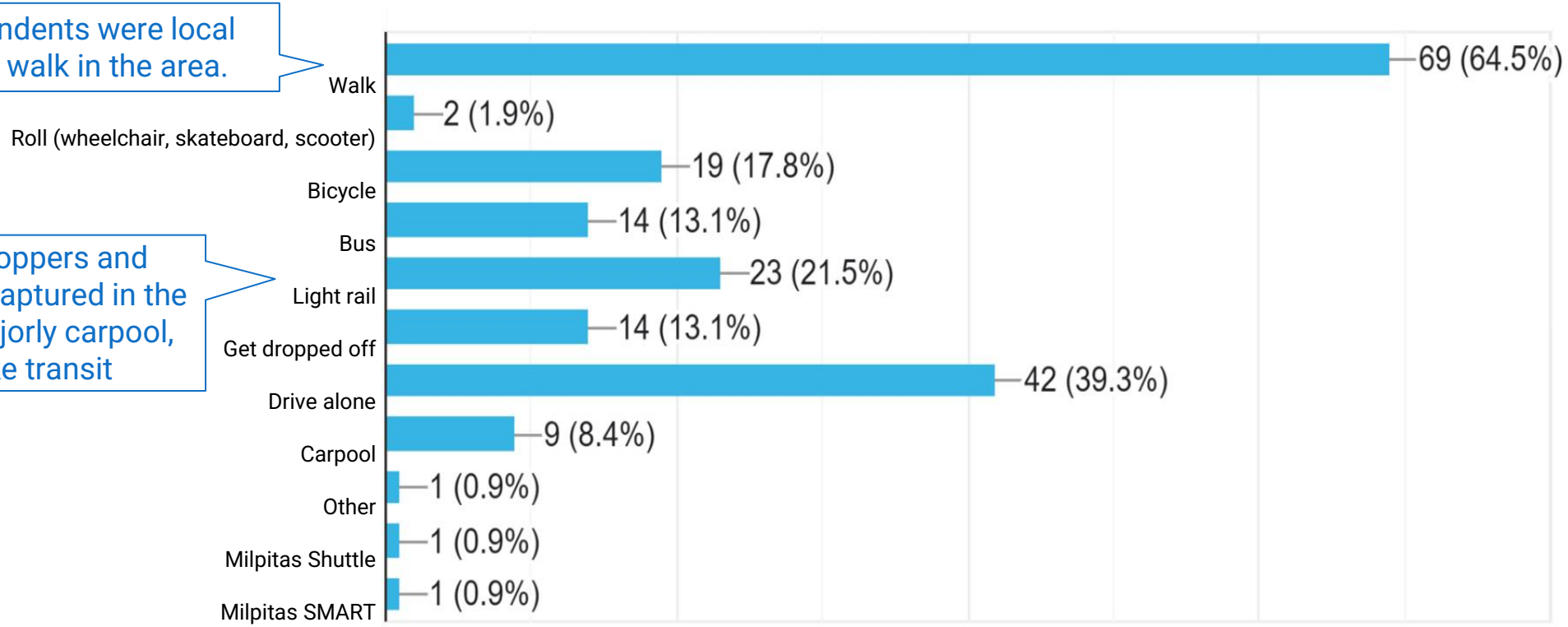
4000 employees work at Great Mall, survey responses does not represent them



How do you typically get to the Great Mall Station?

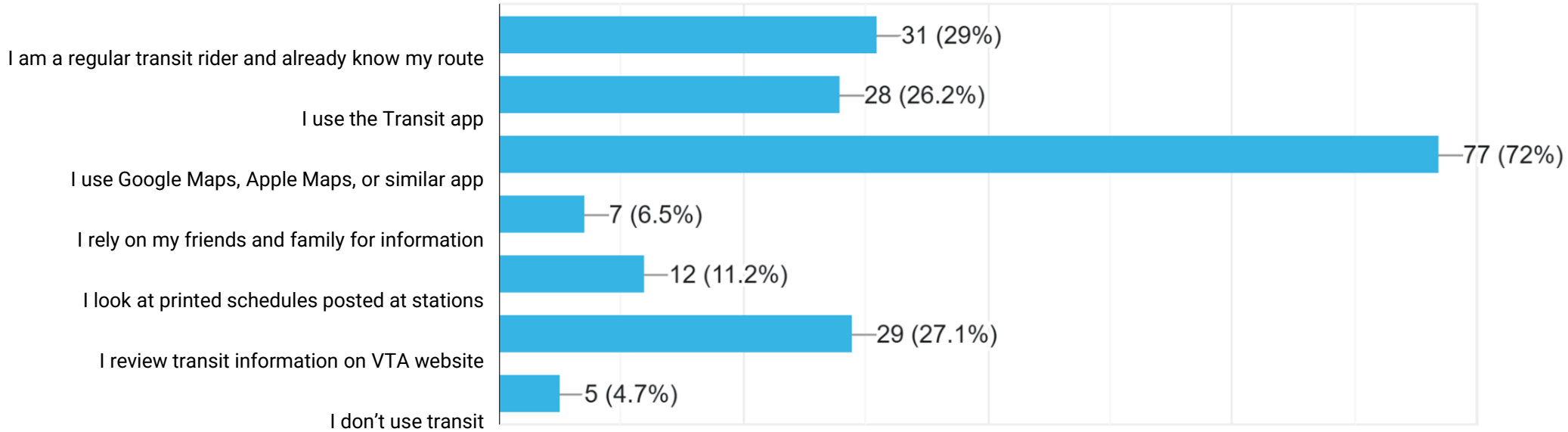
Majority respondents were local residents who walk in the area.

Great Mall shoppers and employees not captured in the survey, who majorly carpool, drive or take transit



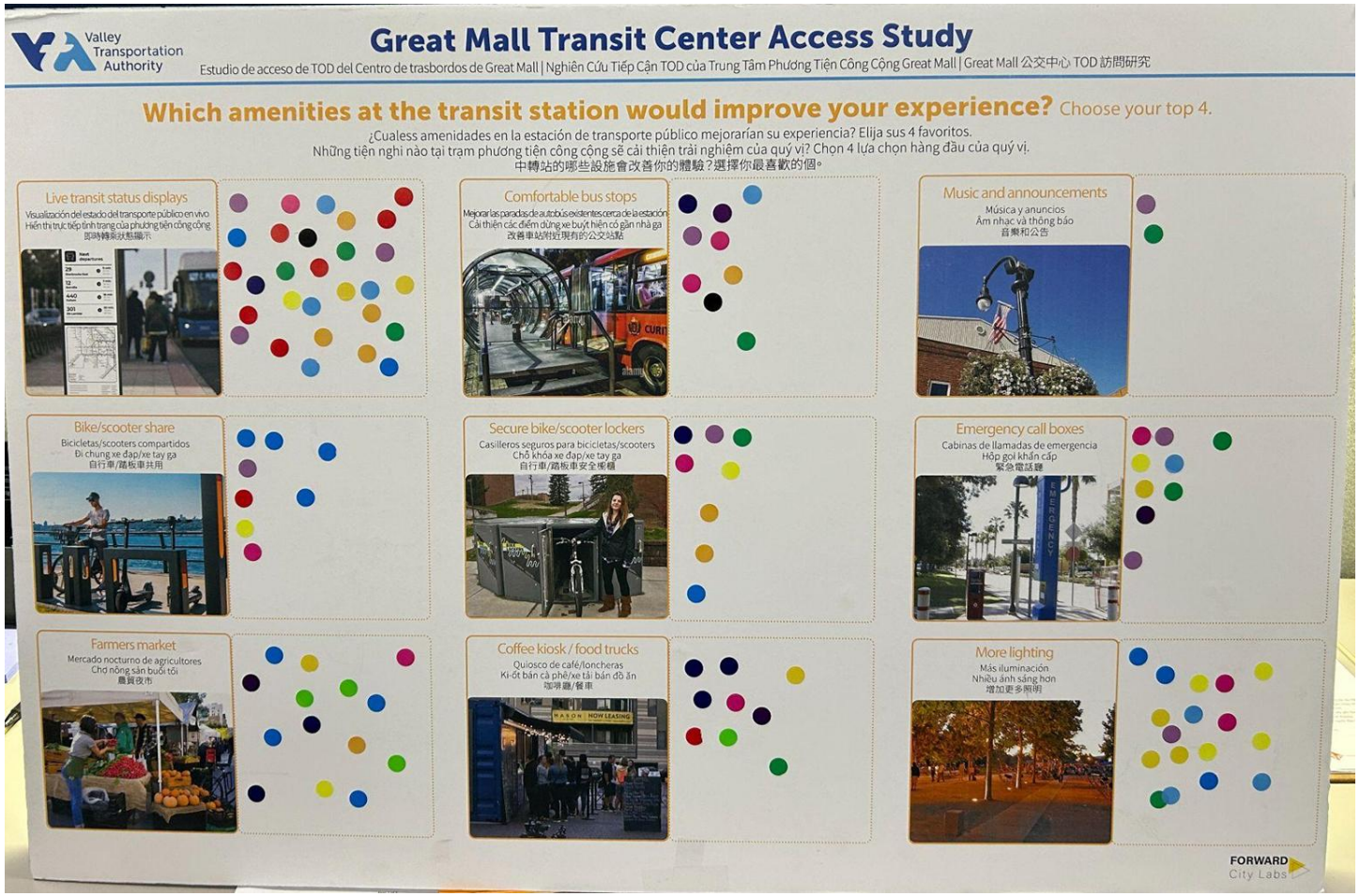
How do you access transit information and plan your route:

- Since most users rely on **Google Maps, Apple Maps, and similar apps** over official transit websites or apps, it is essential to keep these platforms updated with accurate and timely transit information.

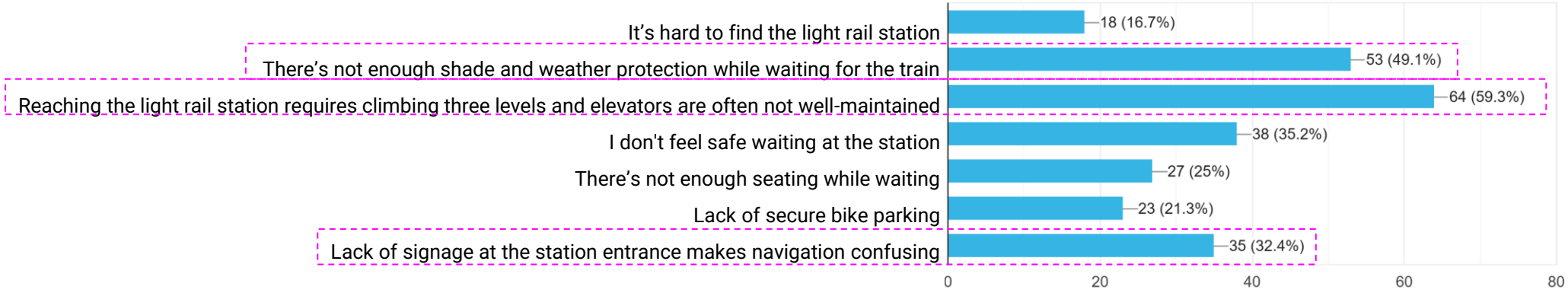


Challenges and Amenities - at the station

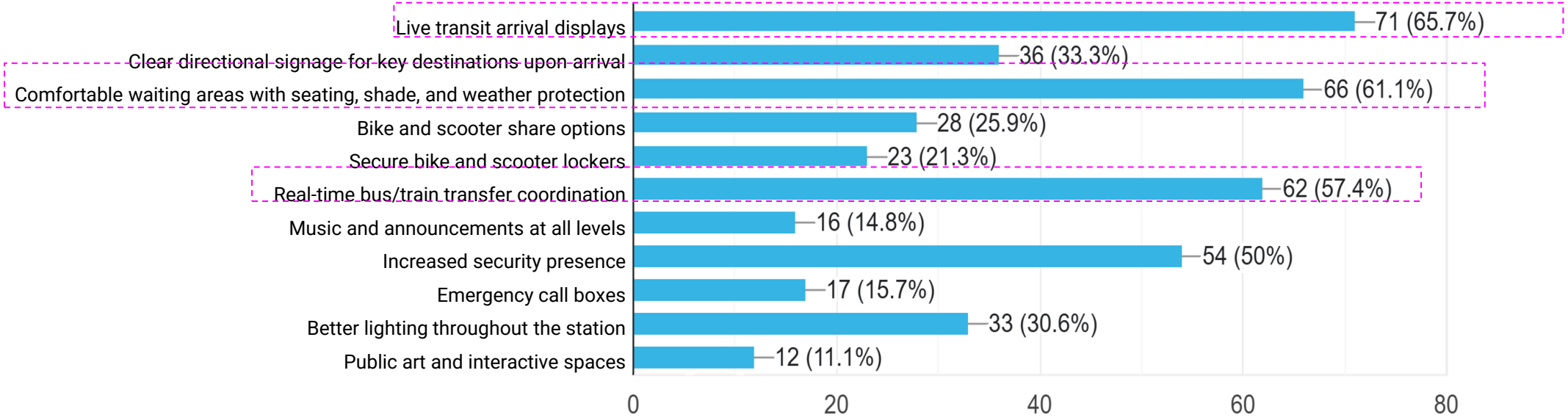
- **Poor wayfinding and signage** suggests a critical need for user-centered design improvements to support first-time riders, tourists, and non-English speakers, impacting station navigability and usability.
- **Non-functional or poorly maintained elevators** at the elevated station create significant access barriers for people with disabilities, seniors, and those with strollers or luggage, highlighting a gap in ADA compliance and inclusive design.
- **Demand for real-time transit displays** reflects a broader need for up-to-date information to reduce uncertainty and improve the rider experience, particularly for time-sensitive commuters.
- **Desire for enhanced lighting and comfortable bus stops** indicates that current amenities fall short in providing a sense of safety and physical comfort, potentially discouraging ridership.
- **Lack of weather protection** at the light rail station discourages use during inclement conditions, affecting ridership reliability and comfort throughout the year.
- **Security concerns** at and around the station reflect broader perceptions of safety that may deter ridership, especially during early morning or late evening hours, and point to a need for increased surveillance, presence, or design interventions.



What challenges do you encounter at the station? (Multiple choice)

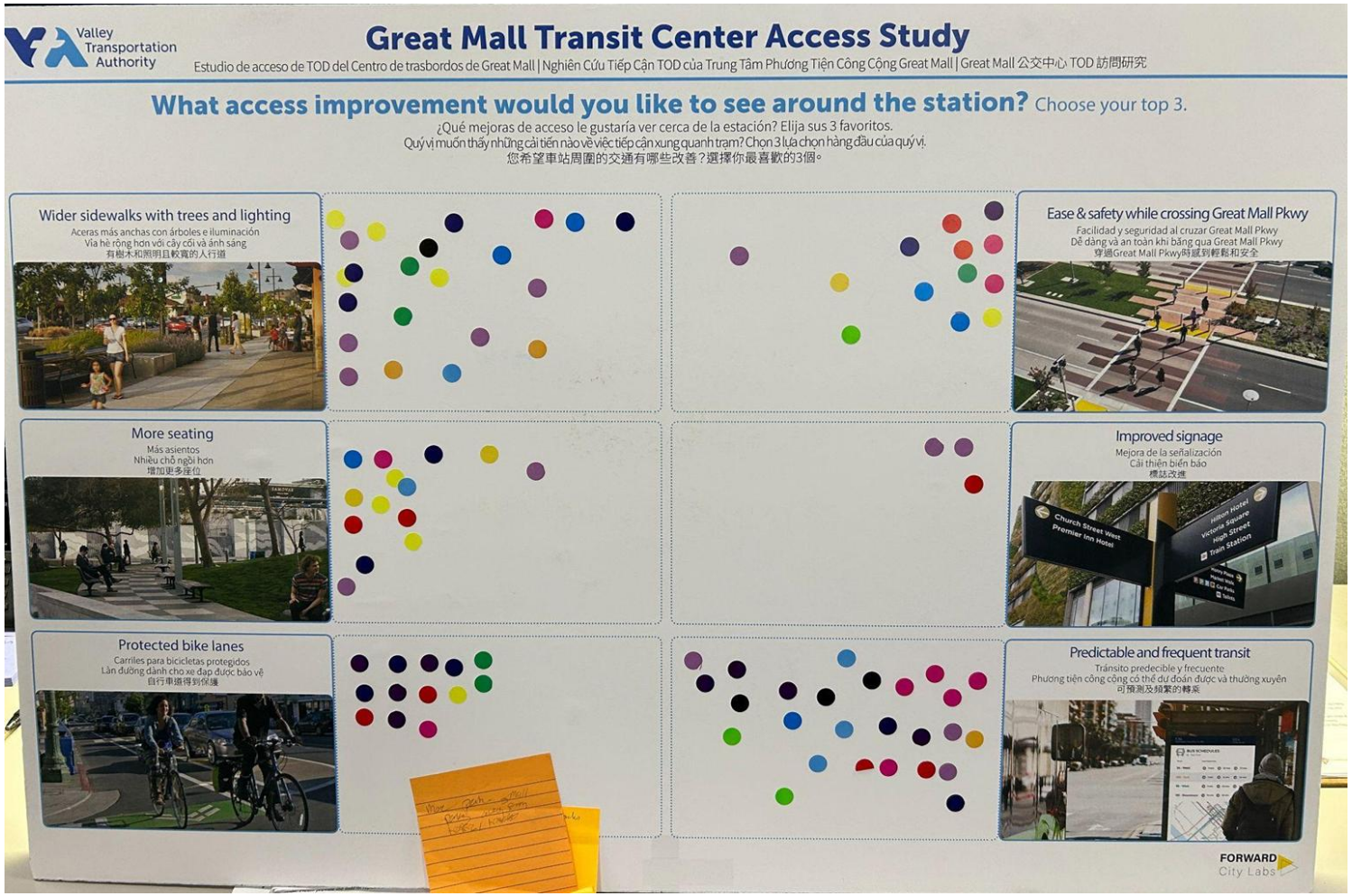


Which amenities at the transit station would improve your experience? (Multiple choice)

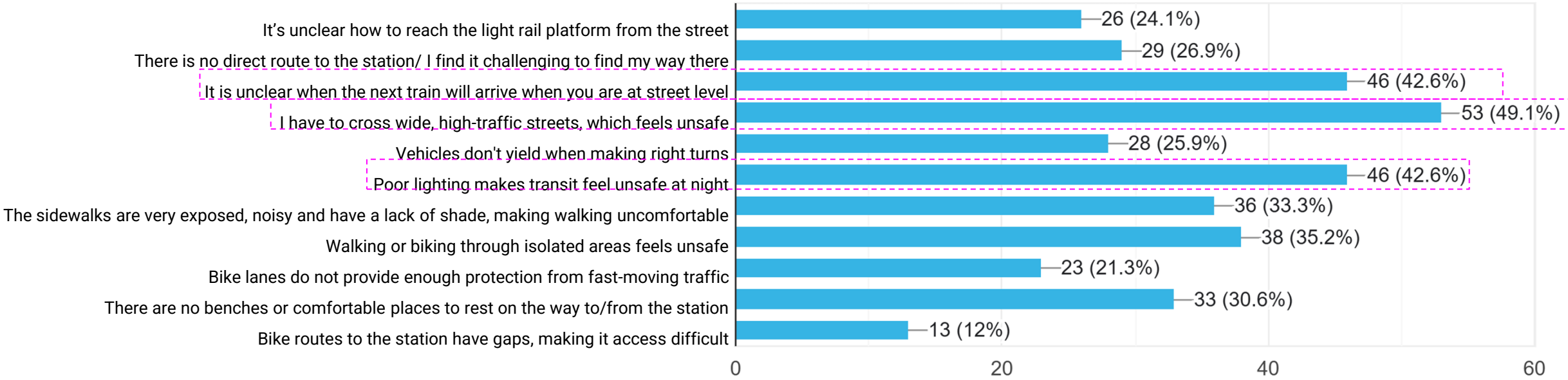


Challenges and Amenities - around the station

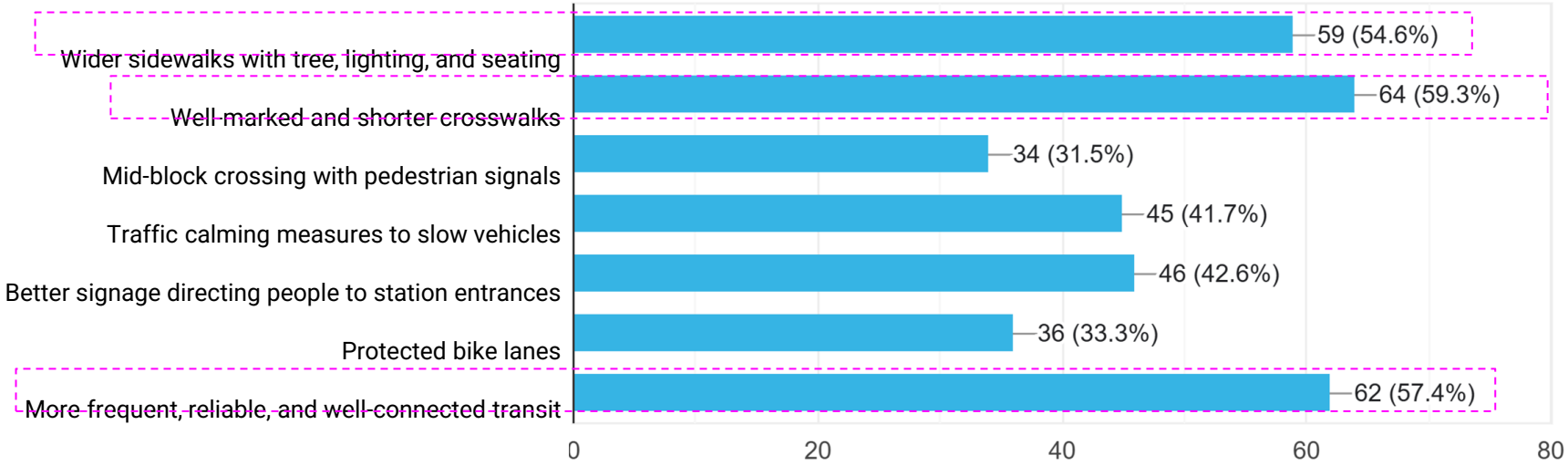
- **Majority of respondents prefer wider sidewalks, well-marked, and shorter crosswalks**, indicating a need for a safer, more pedestrian-friendly environment that supports walkability and transit access.
- **Desire for predictable and frequent transit service** reflects concerns about reliability and a need for reduced wait times to encourage consistent ridership.
- **Difficulty in understanding when the next train will arrive**—caused by the elevated platform and lack of signage or wayfinding at ground level—creates confusion and discourages spontaneous or first-time ridership.
- **Poor lighting contributes to safety concerns**, especially during early morning or evening hours, and signals the need for infrastructure improvements to enhance real and perceived security.
- **Wide streets and long crosswalks feel unsafe**, reinforcing the demand for traffic-calming measures and pedestrian-first design interventions such as shorter crossing distances, median refuges, and better signal timing.



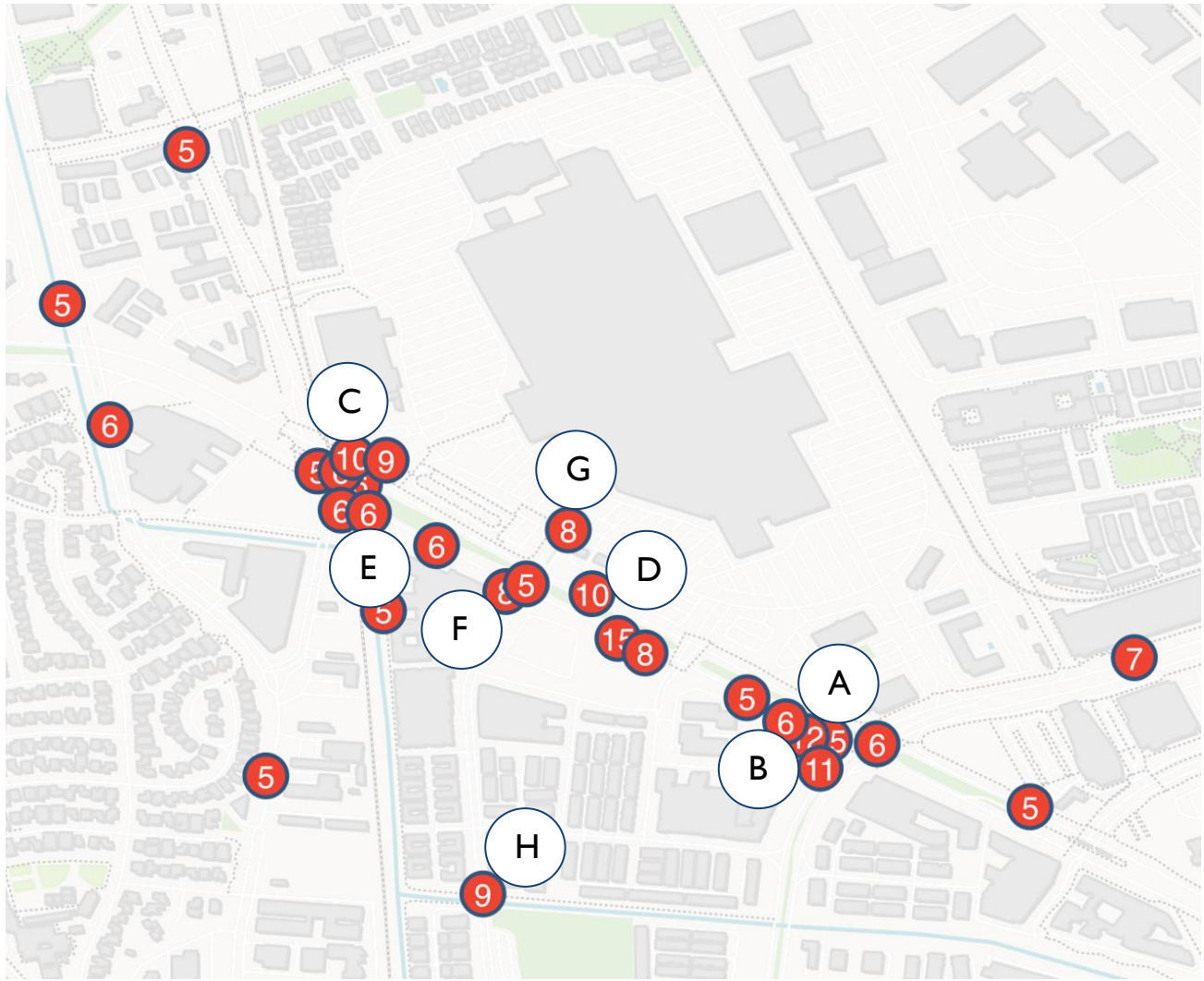
What challenges do you encounter in accessing the station?



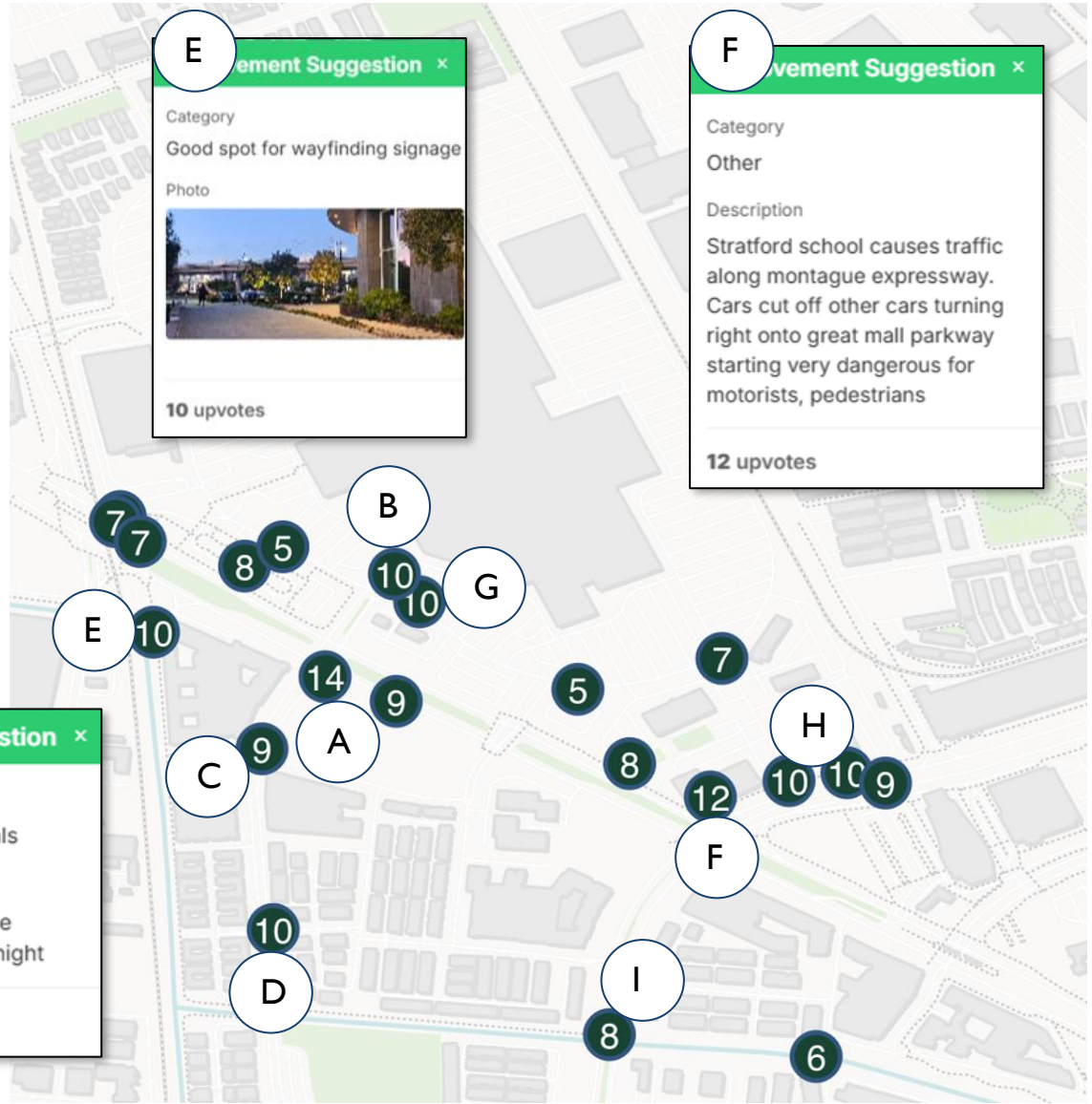
What access improvements would you like to see around the station?



Geographic Distribution of Highly Upvoted Issues



Geographic Distribution of Highly Upvoted Opportunities



A

vement Suggestion ×

Category

Better crosswalks/signals

Description

Need brighter lighting for pedestrians crossing by B street and B C along

14 upvotes

B

vement Suggestion ×

Category

Better crosswalks/signals

Description

Lots of folks cross this particular street. No pedestrian markings or walkway on this side. We usually have to cross on the other side.

10 upvotes

C

vement Suggest

Category

Better crosswalks/signals

Description

Needs better lighting or reflective paint or pedestrian crossing button/lights. Very hard to see pedestrians crossing at night

9 upvotes

D

vement Suggestion ×

Category

Better crosswalks/signals

Description

Almost impossible to see pedestrians walking at night

10 upvotes

E

ement Suggestion ×

Category

Good spot for wayfinding signage

Photo

10 upvotes

F

vement Suggestion ×

Category

Other

Description

Stratford school causes traffic along montague expressway. Cars cut off other cars turning right onto great mall parkway starting very dangerous for motorists, pedestrians

12 upvotes

G

vement Suggestion ×

Category

New pedestrian crossings

Description

No walkway here. There needs to be a sidewalk. We are forced to walk in front of Tesla vehicles charging so not safe. This is all misleading since there is a pedestrian walkway from the Great Mall to this particular corner but then ends. Try it for yourself

10 upvotes

H

ement Suggestion ×

Category

New pedestrian crossings

Description

People cross montague expressway here all the time, since the Milpitas Bart and bus station is right across from it. This is very dangerous since cars are going by very quickly. Please add a pedestrian crossing since people will keep on crossing it regardless of the signs posted

10 upvotes

I

vement Suggestio

Category

New pedestrian crossings

Description

No access to the park, or even safe crossing across montague. Ped overcrossing should be here

8 upvotes

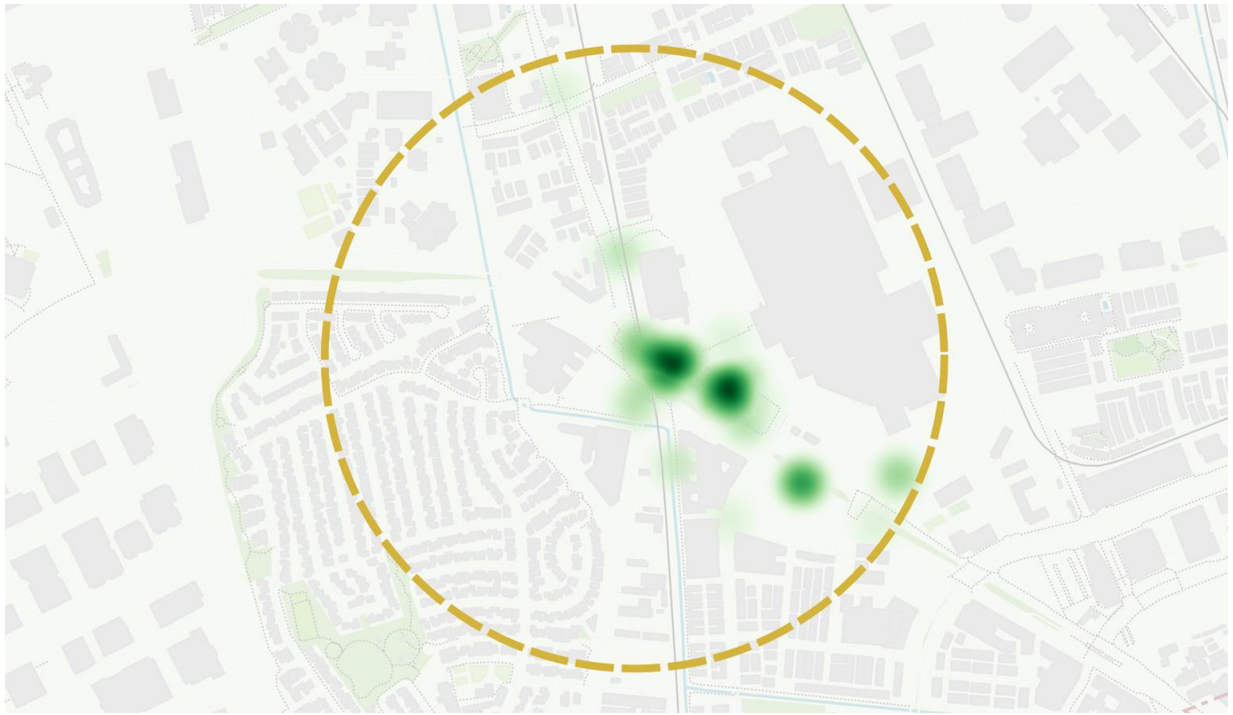
Other Comments

Some of the colorful cement here is very smooth and gets slippery in the rain.

Brighter lighting at night along great mall parkway starting from BART station down to VTA station

Cleanliness - The elevator and stairs are always smelly and often nasty dirty - need enforcement to prevent - not just cleaning

Add Pedestrian Flashing Beacon



There should be a hiking/biking trail (paved or unpaved) open to public along the canal

Need to improve stop for buses at this location

Cover from weather, better security, and a cover to prevent falling onto rails

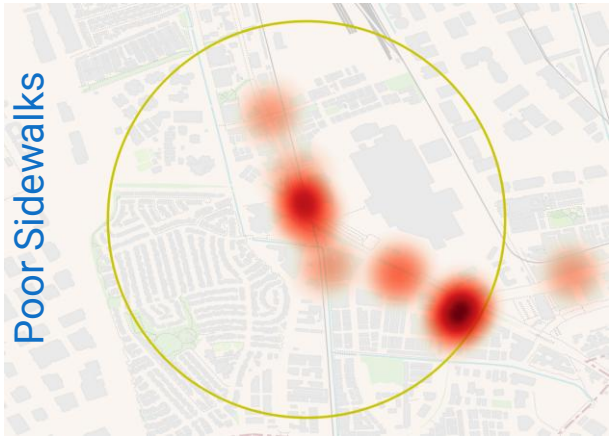
Suggest extending solid median to great mall blvd using yellow flex posts to decrease speeds

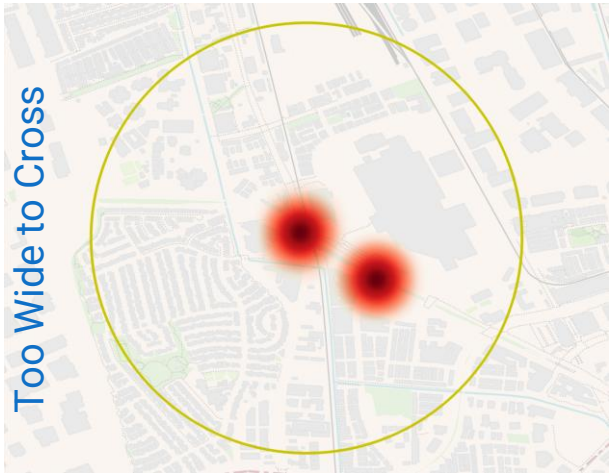
You should add how long it will take to get to light rail

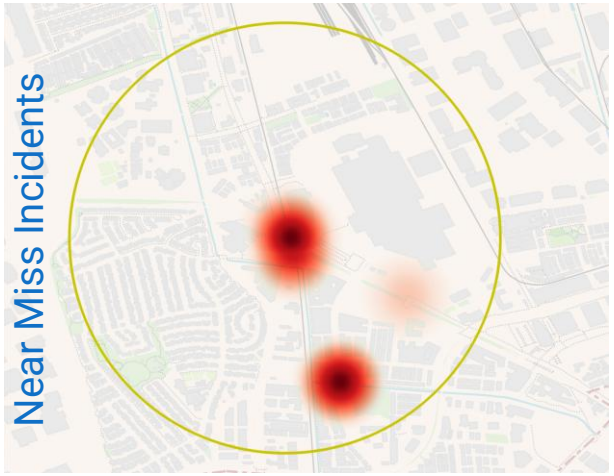
The trail next to the creek is a perfect route for pedestrians - but always littered with dog poop and needs to be developed further

Key Themes: Pedestrian Access

- **Long and unsafe** pedestrian crossing
- Traffic signal crossings are **not timed or well-integrated for pedestrian mobility**
- Lack of pedestrian **wayfinding & signage**
- **Vehicles not yielding** or stopping at crosswalks
- Sidewalks **damaged/ obstructed**





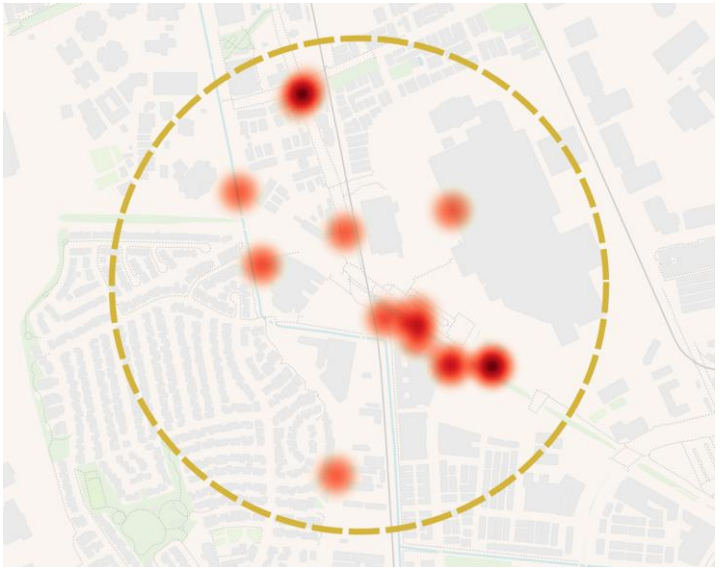


Key Themes: Bicycle Access

- **Lack of safe bike lane** on Great Mall Parkway
- **No wayfinding/signage** directing cyclists to/from station
- Increasing risk to people bicycling due to the **high volumes and speeds of vehicles**
- **No curb ramp** for bicyclists to access the station

Sidewalks are used as bike lanes

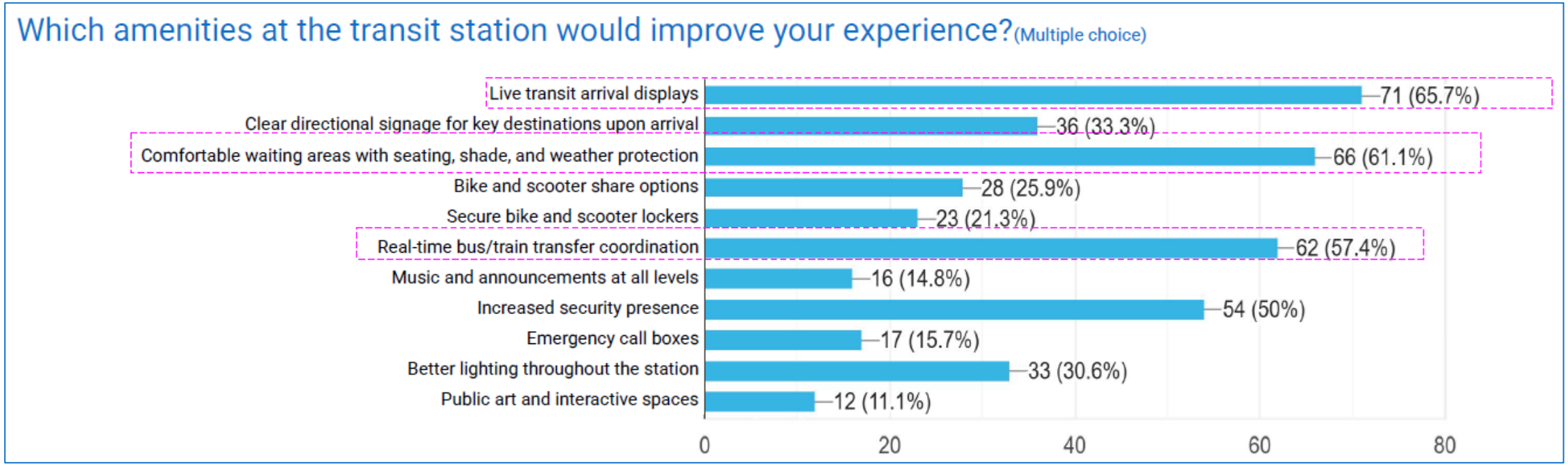
Unsafe biking conditions



	Report	Upvote
Unsafe biking conditions	17	57
Poor sidewalk conditions	11	53
Unsafe crossing	18	32
Poor lighting at night	20	3
Drivers not yielding	7	14
Near-miss incidents	6	9
Heavy traffic congestion	4	9
No weather protection	1	6
Too wide to cross	2	3
Speeding vehicles	2	3

Key Themes: Transit Access

- **Lack of weather protection** at elevated platform
- **No visual presence** of station from street level
- **Elevators** not working with no alternative
- Bus and light rail are **not well integrated**
- No r**eal time departure information** at street level
- Station **lacks lighting** at night
- Lack of activation at **station decreases perception of safety**
- Unclear which **platform exit** to use to get to Great Mall

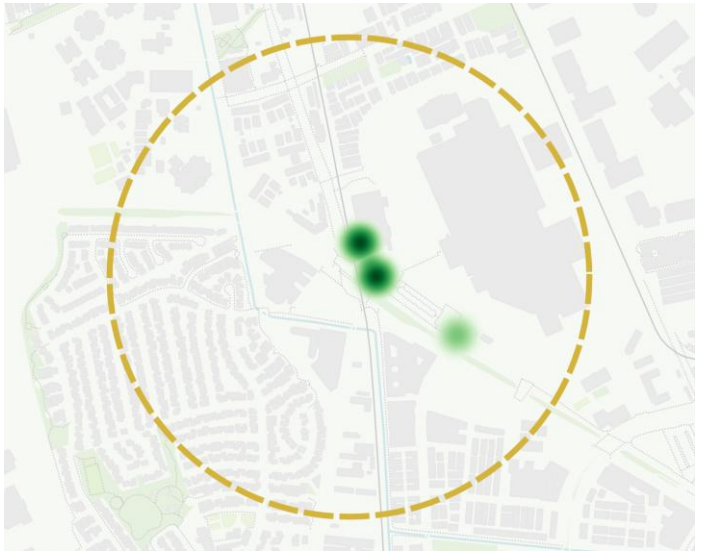


Key Themes: Placemaking Opportunities

- Good spot for **public art**
  - resolve signage
  - create identity
  - canopy for shaded waiting area

- **Community activation**
  - Night Market
  - Pocket Park
  - Walking track at the tail behind home depot
  - Trail enhancement

Good spot for public art



The trail next to the creek is a perfect route for pedestrians - but always littered with dog poop and needs to be developed further

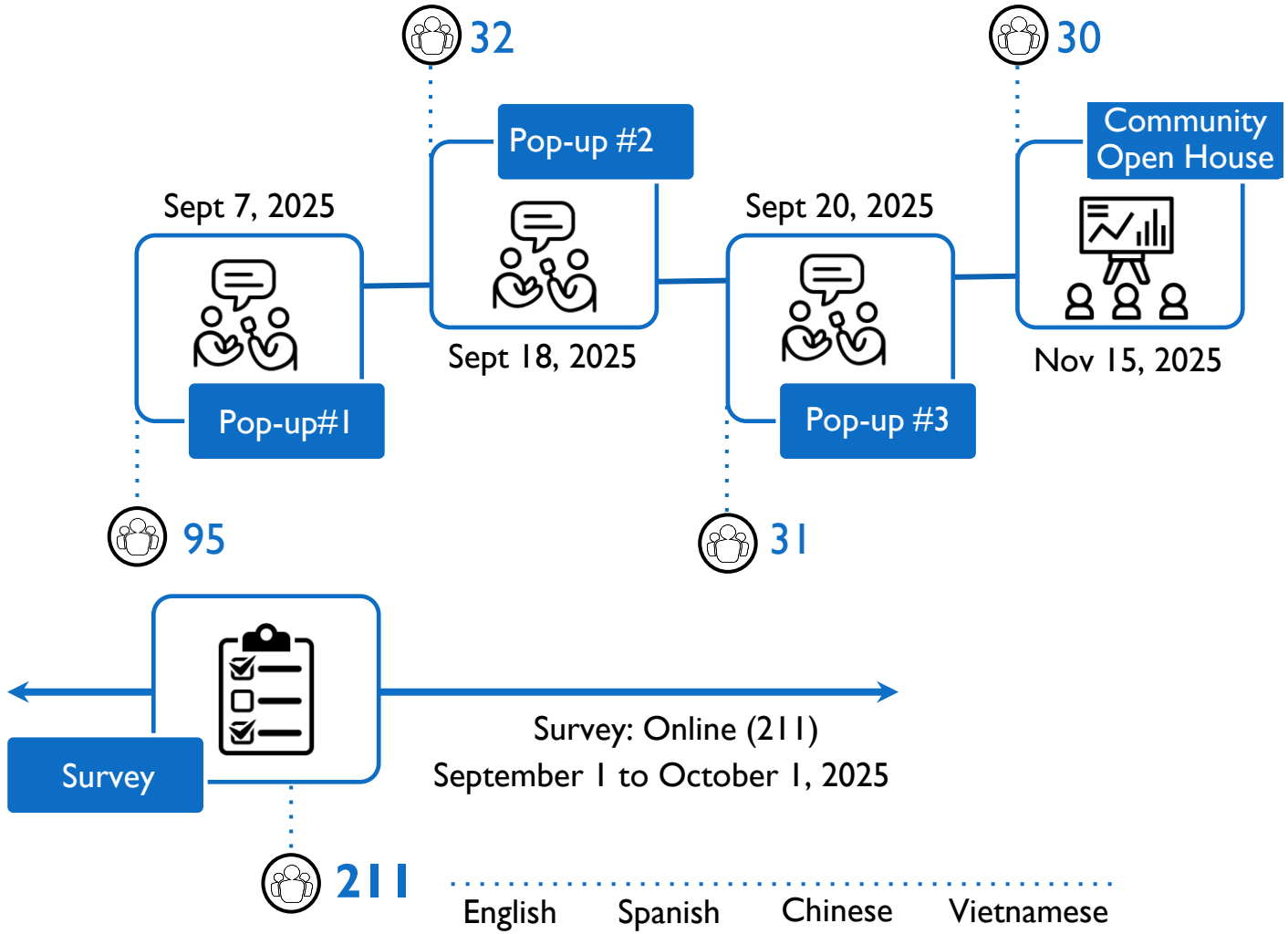
There should be a hiking/biking trail (paved or unpaved) open to public along the canal

Great Mall Station Access Study

Engagement Summary
Phase II

Phase II Engagement Timeline

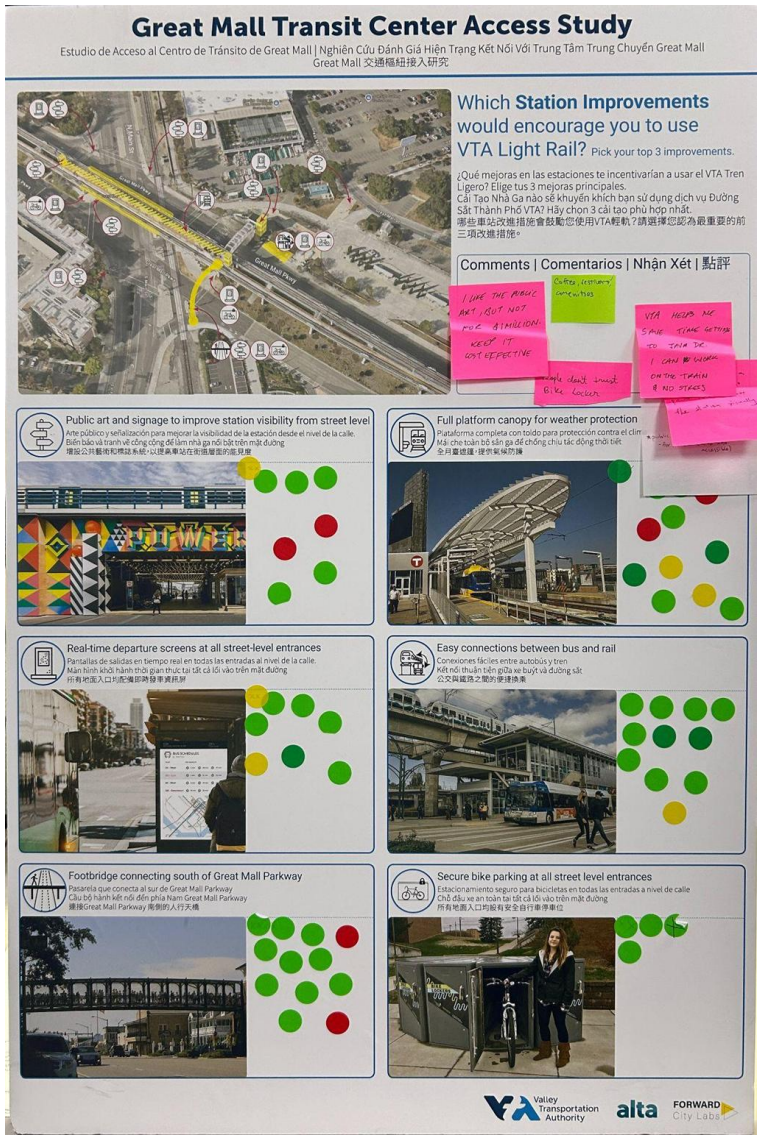
Phase II Engagement
399



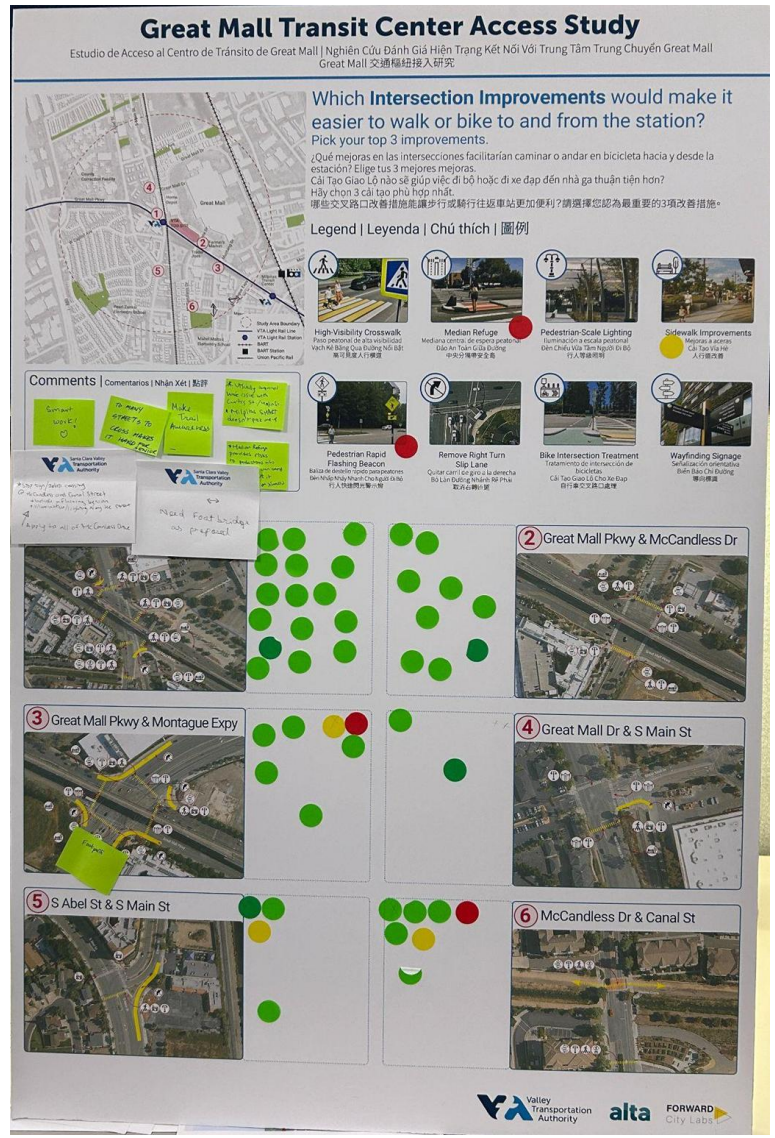
Pop-up#1 Milpitas Farmers Market

Community Open House at Mabel Mattos Elementary

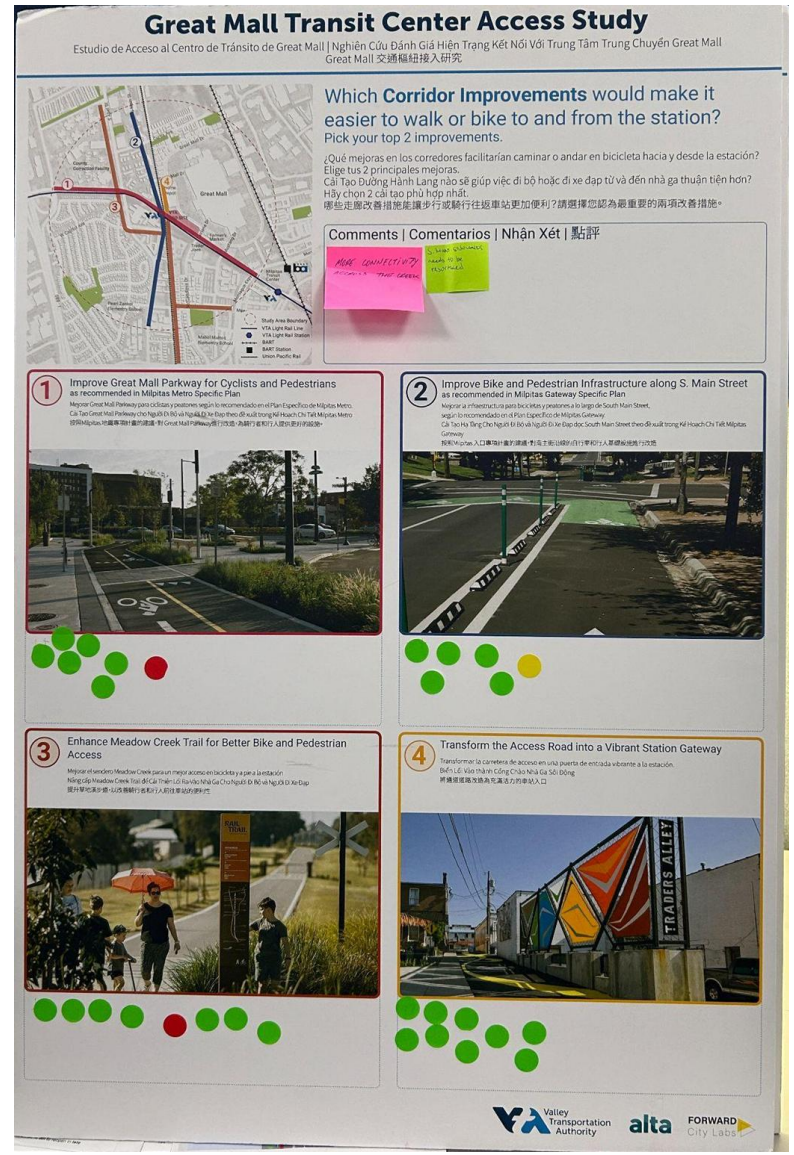
Great Mall Station Improvements



Major Intersection Improvements

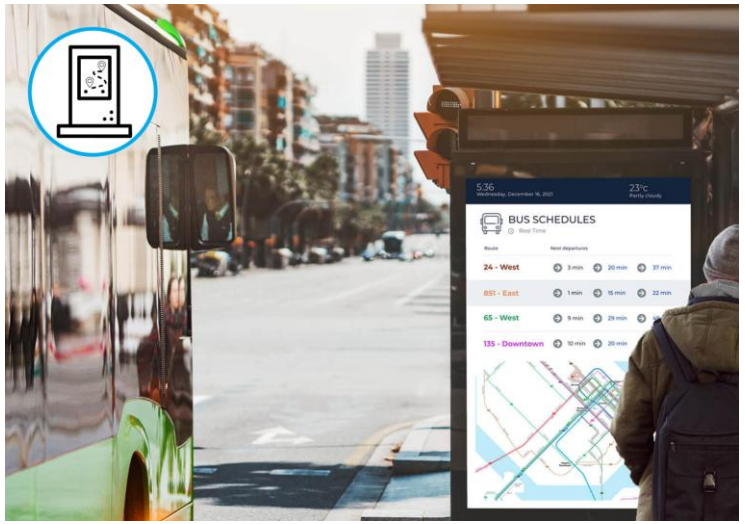


Corridor Wide Improvements



Top Great Mall Station Access Improvements

Real-time Departure Displays

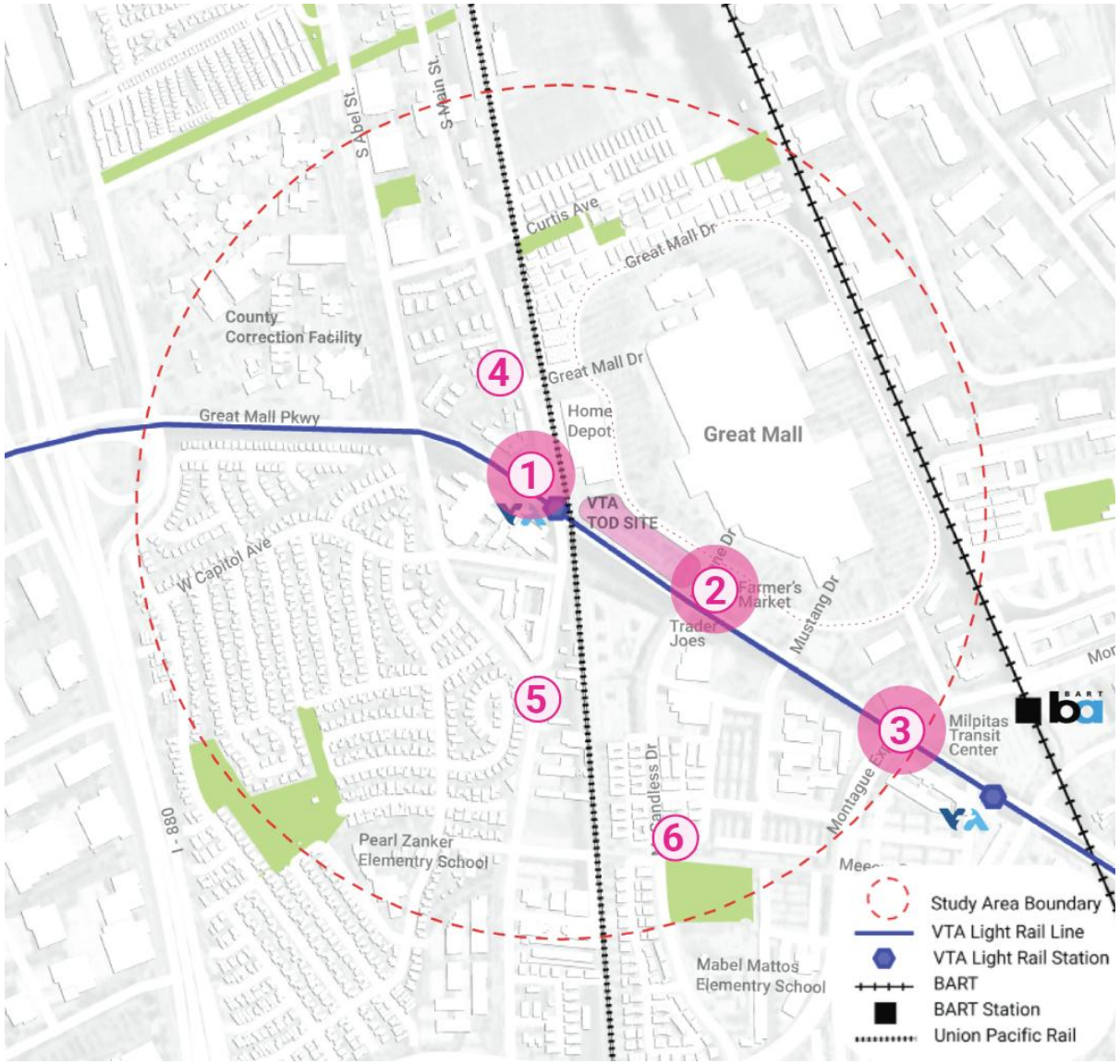


Easier Bus and Rail Connections

Footbridge South of Great Mall Parkway

Which station improvements would encourage you to use VTA Light Rail? Choose top 3.		
Answer Choices	Response Percent	Total
Public art and signage to improve station visibility from street level	8.39%	46
Full platform canopy for weather protection	20.44%	112
Real-time departure screens at all street-level entrances	20.99%	115
Easy connections between bus and rail	21.17%	116
Footbridge connecting south of Great Mall Parkway	21.35%	117
Secure bike parking at all street level entrances	7.66%	42
	Total	548

Top Major Intersection Improvements



Legend | Leyenda | Chú thích | 圖例

High-Visibility Crosswalk
Paso peatonal de alta visibilidad
Vạch Kẻ Băng Qua Đường Nổi Bật
高可見度人行橫道

Median Refuge
Mediana central de espera peatonal
Đảo An Toàn Giữa Đường
中央分隔帶安全島

Pedestrian Rapid Flashing Beacon
Baliza de destello rápido para peatones
Đèn Nhấp Nháy Nhanh Cho Người Đi Bộ
行人快速閃光警示燈

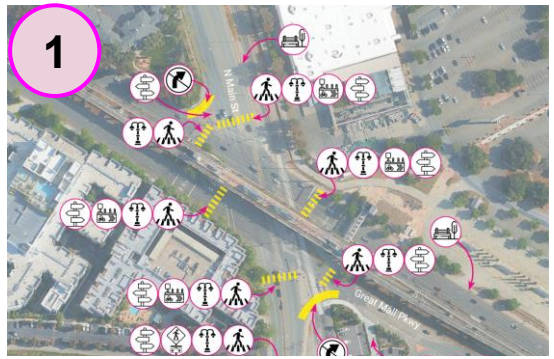
Remove Right Turn Slip Lane
Quitar carril de giro a la derecha
Bỏ Làn Đường Nhánh Rẽ Phải
取消右轉匝道

Pedestrian-Scale Lighting
Iluminación a escala peatonal
Đèn Chiếu Vừa Tầm Người Đi Bộ
行人等級照明

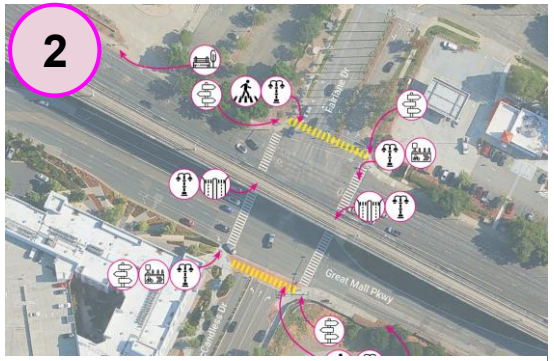
Sidewalk Improvements
Mejoras a aceras
Cải Tạo Vỉa Hè
人行道改善

Bike Intersection Treatment
Tratamiento de intersección de bicicletas
Cải Tạo Giao Lộ Cho Xe Đạp
自行車交叉路口處理

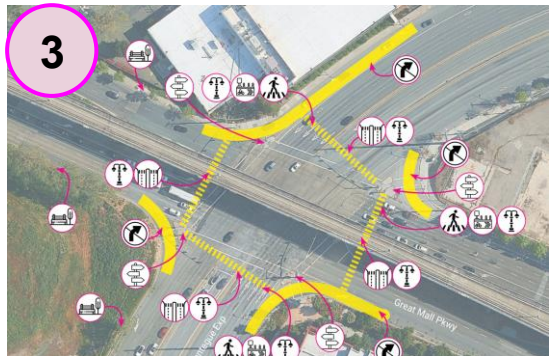
Wayfinding Signage
Señalización orientativa
Biển Báo Chỉ Đường
導向標識



Great Mall Pkwy & S Main St

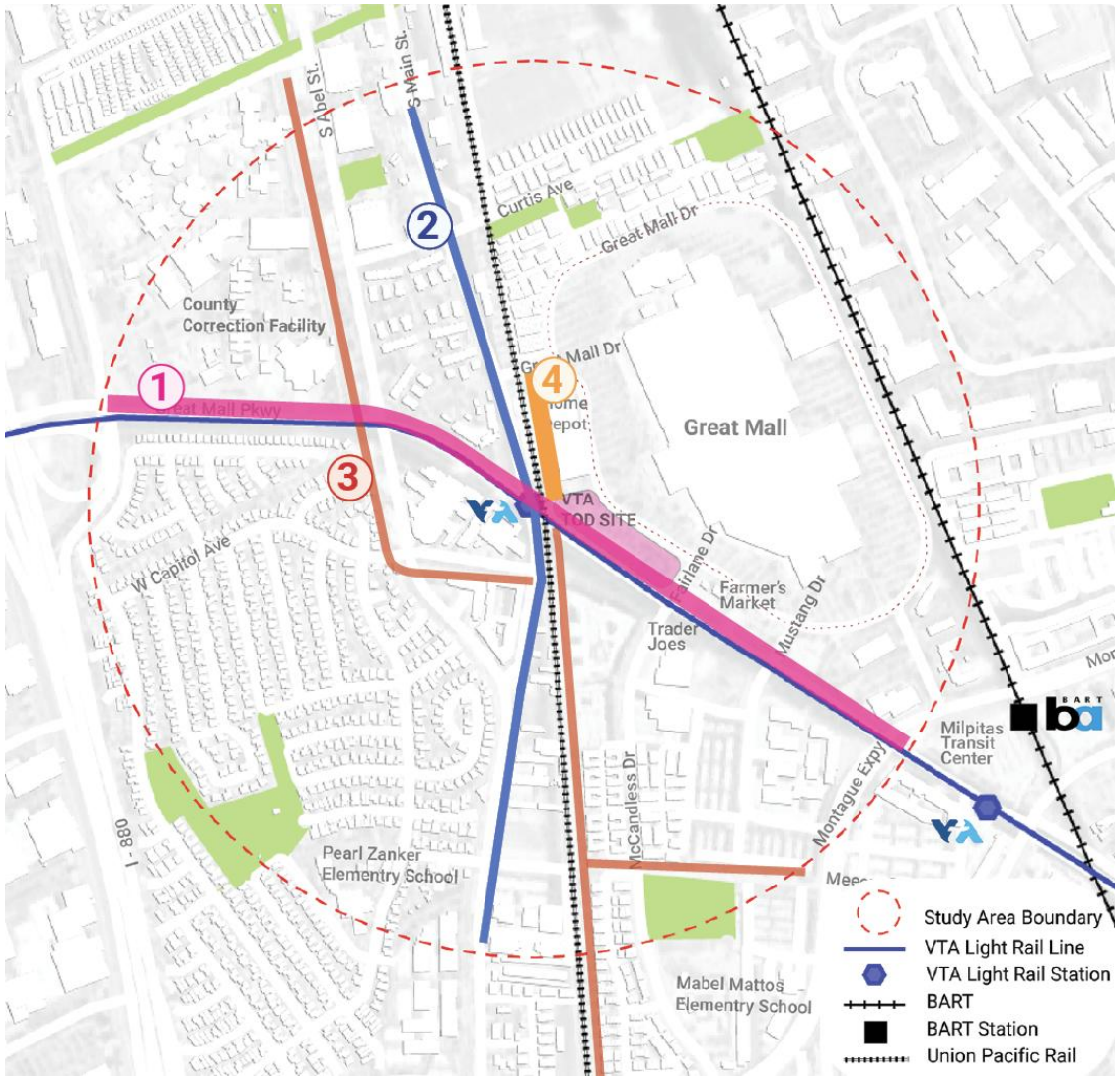


Great Mall Pkwy & McCandless Dr



Great Mall Pkwy & Montague Expy

Top Corridor Wide Improvements



Which corridor(s) should be prioritized for improvement? Choose top 2.		
Answer Choices	Response Percent	Response Number
1. Improve Great Mall Parkway for Cyclists and Pedestrians	32.51%	131
2. Improve Bike and Pedestrian Infrastructure along S. Main Street	21.34%	86
3. Enhance Meadow Creek Trail for Better Bike and Pedestrian Access	22.58%	91
4. Transform the Access Road into a Vibrant Station Gateway	23.57%	95
	Total	403

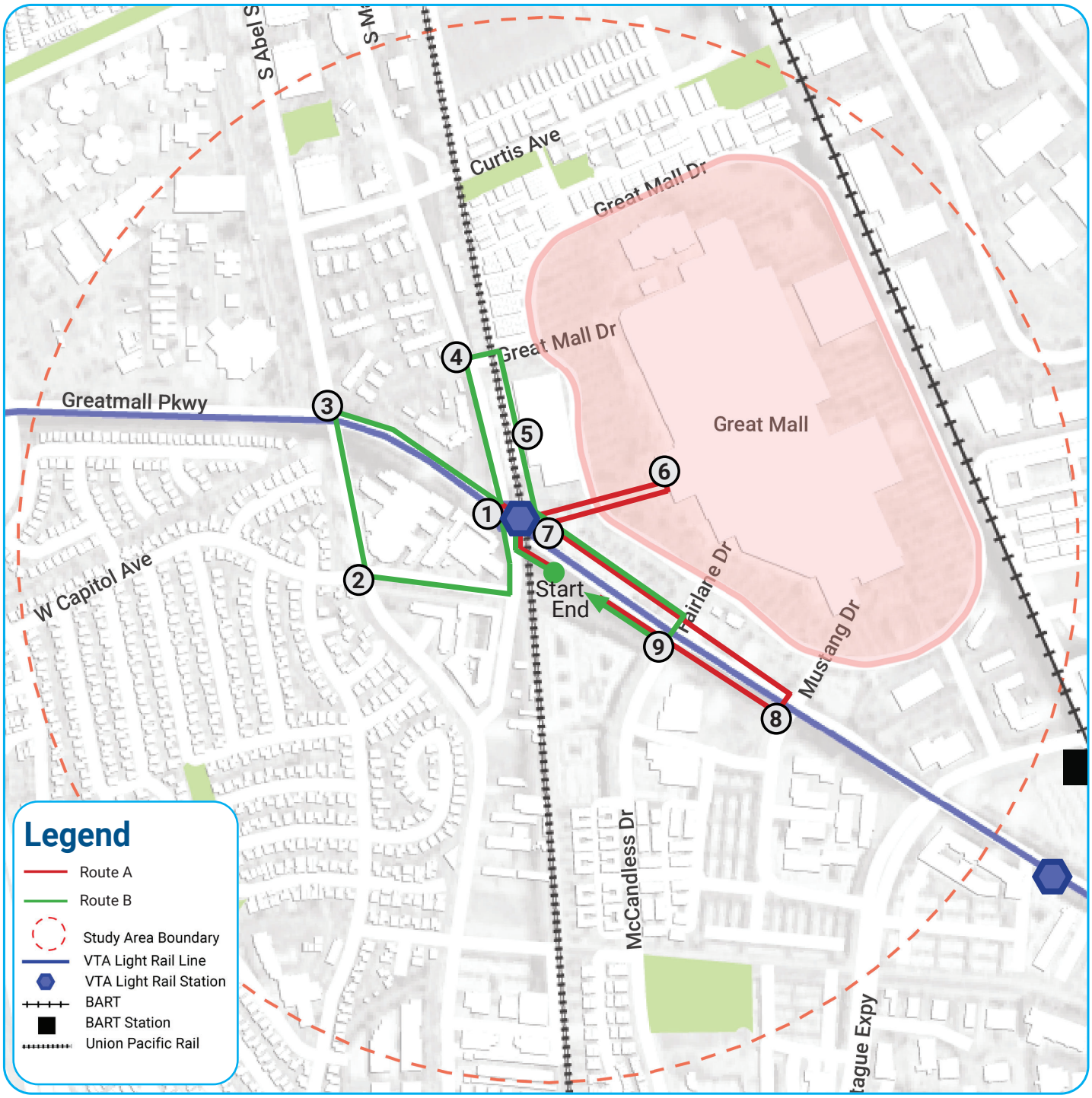
1. Improve Great Mall Parkway for Cyclists and Pedestrians

4. Transform the Access Road into a Vibrant Station Gateway

Appendix B

Walk Audit Findings

Walk Audit Findings



Key Points:

1: Great Mall Pkwy & S Main St
2: S Abel St & W Capitol Ave
3: Great Mall Pkwy & S Abel St
4: S Main St & Great Mall Dr
5: VTA Bus Loop Access Road behind Home Depot
6: Alley to Great Mall Entrance
7: VTA Great Mall Station
8: Mustang Dr & Great Mall Pkwy
9: McCandless Dr & Great Mall Pkwy

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 Transit Station Access Study, VTA and 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.

Assessing existing sidewalk conditions along Great Mall Pkwy

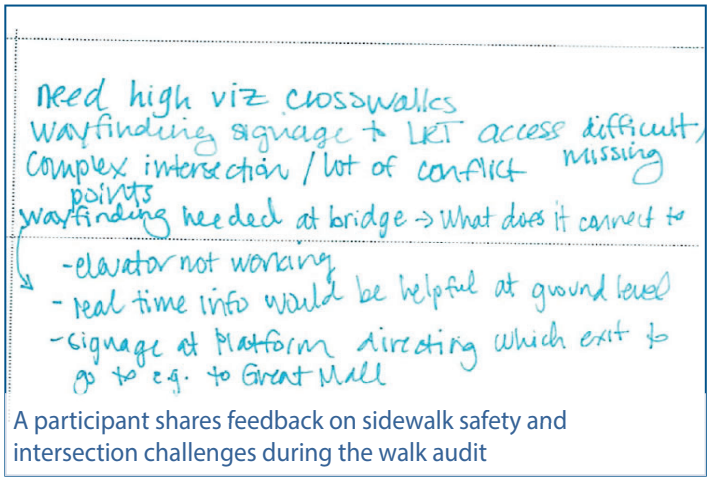
Debrief after the walk audit to gather collective insights and discuss highlights

Intersection: Great Mall Pkwy and S Main St

Key Observations:

- Attendees observed pedestrians attempting to cross Great Mall Parkway to reach the median and VTA elevators experienced **multiple near misses with vehicles.**
- Visibility of **pedestrian beacons** was experienced to be limited by attendees driving, particularly those turning left onto Great Mall Parkway from South Main Street, contributing to the unsafe conditions.
- Attendees observed the elevators located in the median were out of service. This forced pedestrians to cross the intersection up to three times, creating a hazardous and frustrating situation. Attendees expressed that this **unexpected detour** poses significant challenges for parents with strollers, seniors, cyclists, and individuals using wheelchairs, and can result in missed transit connections as people attempt to find alternate routes to the platform.
- The Union Pacific Railroad line runs parallel to South Main Street, which creates challenges for pedestrian and bicycle access to the east entrance of the light rail station from the south side of the Great Mall Parkway.
- **Poor wayfinding and signage** observed at this intersection.
- Some attendees mentioned the station is not inviting.
- Overall, the street design of Great Mall Parkway and surrounding areas prioritizes high vehicle speeds over the safety of all road users. This **vehicle-centric approach** will likely be challenging to change in the near future.

Participants observe traffic flow and pedestrian safety conditions at the intersection



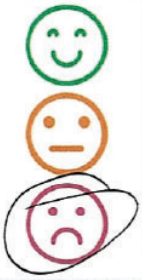
A participant shares feedback on sidewalk safety and intersection challenges during the walk audit

Nighttime view showing existing street lighting—present but insufficient for creating a safe and welcoming pedestrian

The Union Pacific tracks add additional layer of complication to the intersection geometry

Challenging pedestrian access due to elevated median location and poor signage.

Feedback from Walk Audit Forms

1 South Main Street and Great Mall Parkway		Way finding to Elevators ~~For~~ No out of service at ground level
2 VTA Light Rail Station		NO Sinage on Train Direction and next arivel time. way Finding needs work on Platform.
3 Great Mall Entrance		way Finding poor a canopy from Light Rail to Great mall entrest Sinage with way to Lightrail.

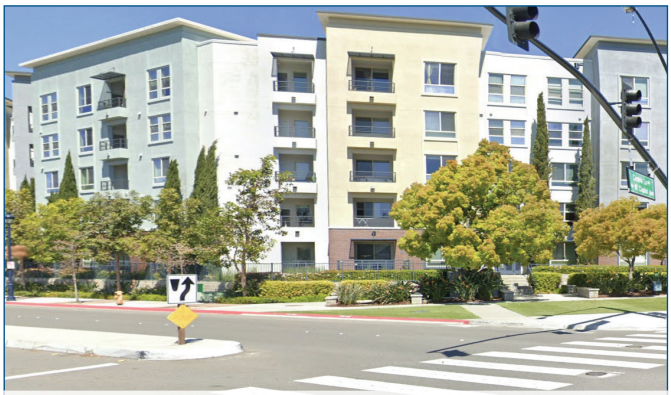
1 South Main Street and Great Mall Parkway		Easy to cross but with heavy traffic cars driving fast, might be challenging for others esp kids + senior citizen. No sign elevator not working
2 VTA Light Rail Station Station is not inviting		No disable access if elevator is not working more cover for raining season + hot weather No big sign of the station's name No signs on where to get/buy tickets Not enough map of the Station/no bicylee rack
3 Great Mall Entrance		No sign which way to Great mall. Great mall sign is only one direction so its not visible at all angle.

Intersection: S Abel St and W Capitol Ave

Key Observations:

- The intersection has adequate sidewalks with curb ramps and well-marked crosswalks, ensuring safe pedestrian movement.
- It transitions into a peaceful trail, providing an alternative to heavy traffic on the main street.
- While the creekside trail and walkway offer a tranquil route, they lack adequate lighting and safety features, making them vulnerable for pedestrians after dark.

The trail and walkway alongside the creek lack adequate lighting and safety features, making it vulnerable for pedestrians at night



The intersection features well-marked crosswalks and offers adequate crossing time for pedestrians

Walking along the creek offers a peaceful route to the station, avoiding the heavy traffic on the main street for residents

Intersection: Great Mall Pkwy and S Abel St

Key Observations:

- Crosswalks are poorly marked, with wide spans that make pedestrians feel unsafe. Limited signal timing and long wait periods further hinder safe crossing.
- There are no pedestrian islands available to provide a safe mid-block stopping point for individuals with wheelchairs or strollers on very wide street intersection
- Although the sidewalks are generally in good repair, they lack appropriate amenities such as a consistent tree canopy, pedestrian-level lighting, seating areas, and wayfinding signage.

Observing pedestrian challenges at the intersection

Crossroads at Great Mall Pkwy

Intersection: S Main St and Great Mall Dr

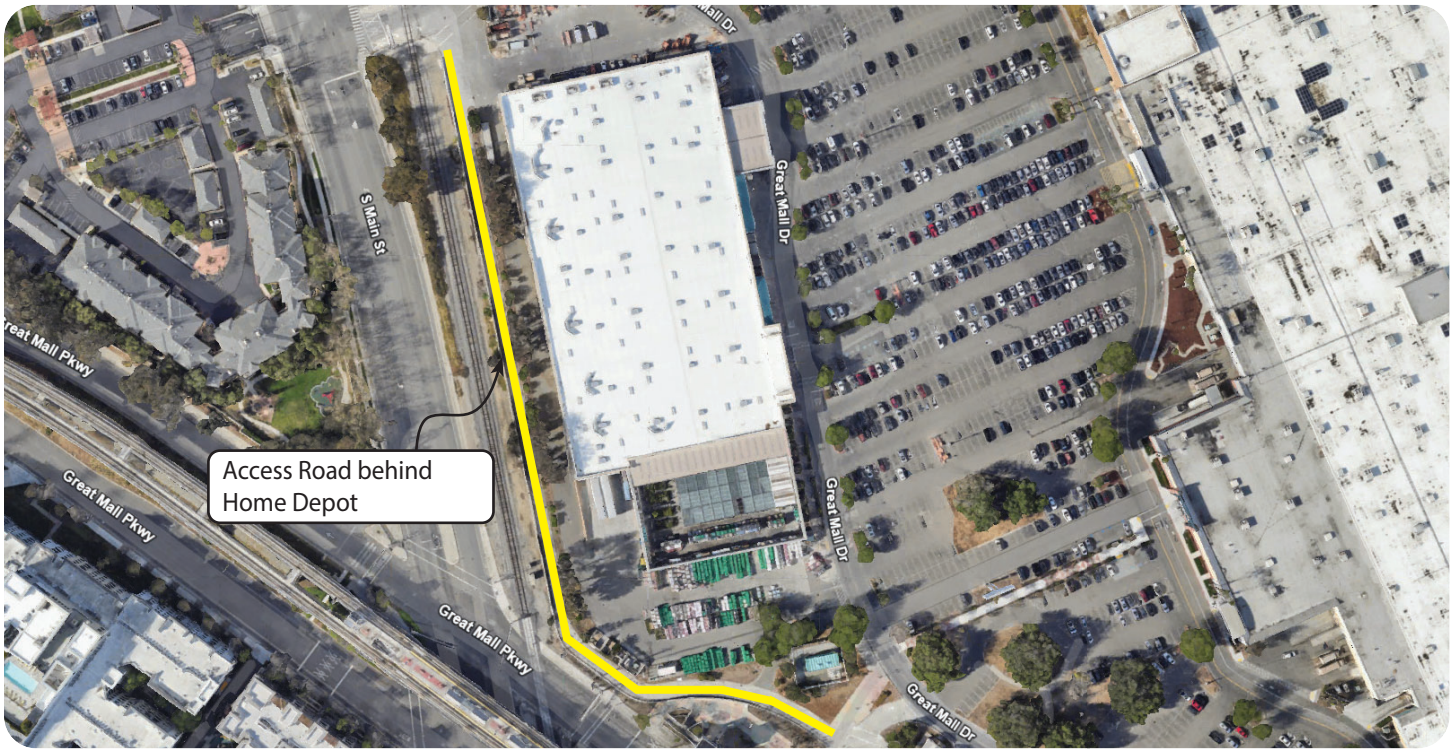
Key Observations:

- Wait times at all signalized intersections are longer than usual, creating delays for pedestrians. Some attendees mentioned “Ideally, pedestrians should receive a walk signal during every signal cycle without having to press a beg button.” Additionally, split signal cycles further lengthen wait times unnecessarily. For example, when vehicles are allowed a protected turn, pedestrians on the opposite side of the intersection have to wait for the entire cycle.
- As a key access point to Great Mall Drive for northbound traffic and Home Depot visitors, the rail crossing is poorly marked, creating confusion and safety risks for all users—drivers, cyclists, and pedestrians—along this active rail line.

Poorly-marked crosswalks

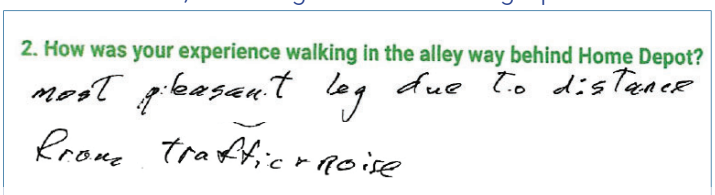
Participants waited through three signal cycles to safely cross the road to reach Great Mall Drive

Access Road Behind Home Depot



Key Observations:

- Some attendees experienced the VTA bus loop access road behind Home Depot offered a pleasant walking route away from traffic, providing a peaceful path to Great Mall Station from S. Main St. During the walk audit, it was mentioned that this area presents a great opportunity for placemaking, with potential for a vibrant walkway and public art installations that can enhance the pedestrian experience.
- While many appreciated the tranquility of walking away from high-traffic zones, some mentioned there is room for improvement in terms of the visual and auditory experience near the freight railroad tracks. Collaboration with the Union Pacific railroad company could help mitigate noise and improve aesthetics around the tracks, creating a more inviting space.



A participant shares feedback during the walk audit

Pleasant walking experience away from traffic

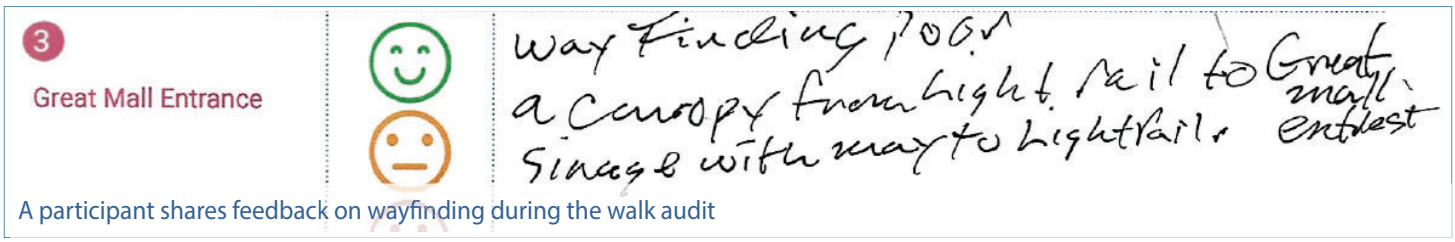
Needs to improve aesthetics of underutilized space

Alley to the Great Mall Entrance

Key Observations:

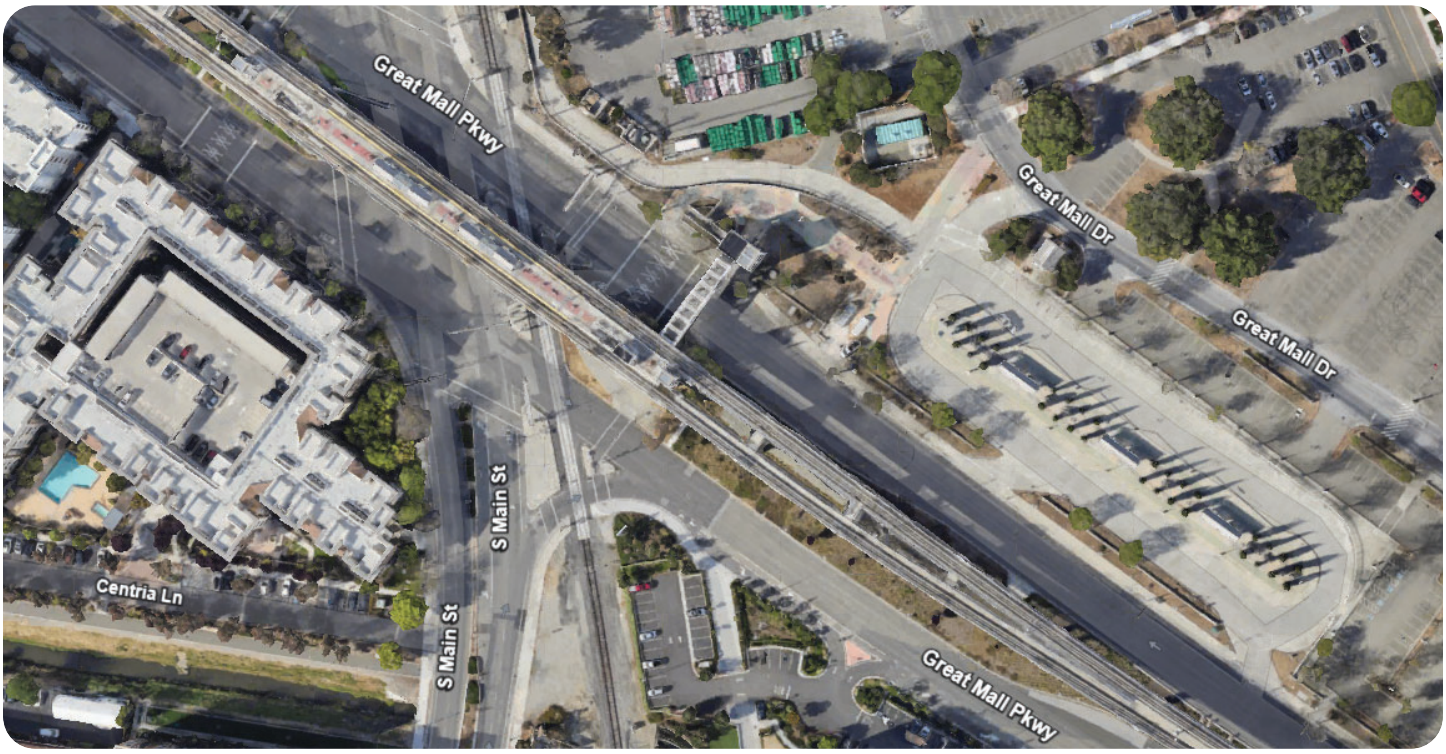
- There was no directional signage at the platform directing people to a regional destination.
- There was no clear walking experiential path connecting people from the transit station to the Great Mall main entry.
- Pedestrian and bicycle safety emerged as a key issue when accessing the main entry to the great mall, particularly within multiple areas on the privately owned Great Mall parcel, which included:
  - Lack of well-marked crosswalks
  - Lack of lighting
  - Lack of directional signage
  - Lack of bike lanes or safe bike access to mall entry

Alley leading to the Great Mall



A participant shares feedback on wayfinding during the walk audit

VTA Great Mall Station



Key Observations:

- Attendees emphasized that the transit status display should be available at all levels of the station and in multiple locations on the platform.
- The station was exposed to weather conditions.
- Attendees expressed a need for improved wayfinding signage to help orient them toward their destinations and specific street sides, particularly for those heading to the Great Mall. Without this guidance, users may exit on the incorrect ground level, forcing them to navigate a large intersection.
- Attendees noted that when elevators are non-operational, people with mobility issues, especially wheelchair users, are unable to access the ground level. A key concern was the lack of available contact information for VTA Facilities to request assistance or inquire about alternative transportation options.
- Attendees observed the existing VTA bus stop conditions:

  - Information regarding VTA bus line connections was unavailable.

  - The bus stop was lacking a weather shelter, Real-time displays for bus and light rail status, Route maps.

Elevated station challenging to access

Nighttime view at the station

Easy to cross but with heavy traffic cars driving fast, might be challenging for others esp kids + senior citizen.
No sign elevator not working
No disable access if elevator is not working
more cover for raing season + hot weather
No big sign of the station's name
No signs on where to get/buy tickets
Not enough map of the station/no bicylee rack

Comments by attendees

Lighting—present but insufficient for creating a safe and welcoming pedestrian environment

Elevated Light Rail Station

Intersection: Mustang Dr and Great Mall Pkwy

Wide intersection for pedestrians

Well-marked crosswalks, but lack of pedestrian island creates safety concerns on heavy traffic intersection.

Intersection: McCandless Dr and Great Mall Pkwy

- Well-marked crosswalks with curb ramps ensure safer pedestrian access, but the area lacks signage towards the Great Mall, the VTA bus stop, and VTA light rail.
- The long crosswalks feel out of scale for pedestrians, and the absence of a pedestrian island increases safety concerns.
- The signal timing barely allowed an able-bodied person to cross.

Nighttime lighting conditions at the intersection

Well-marked crosswalks with curb ramps ensure safer pedestrian access

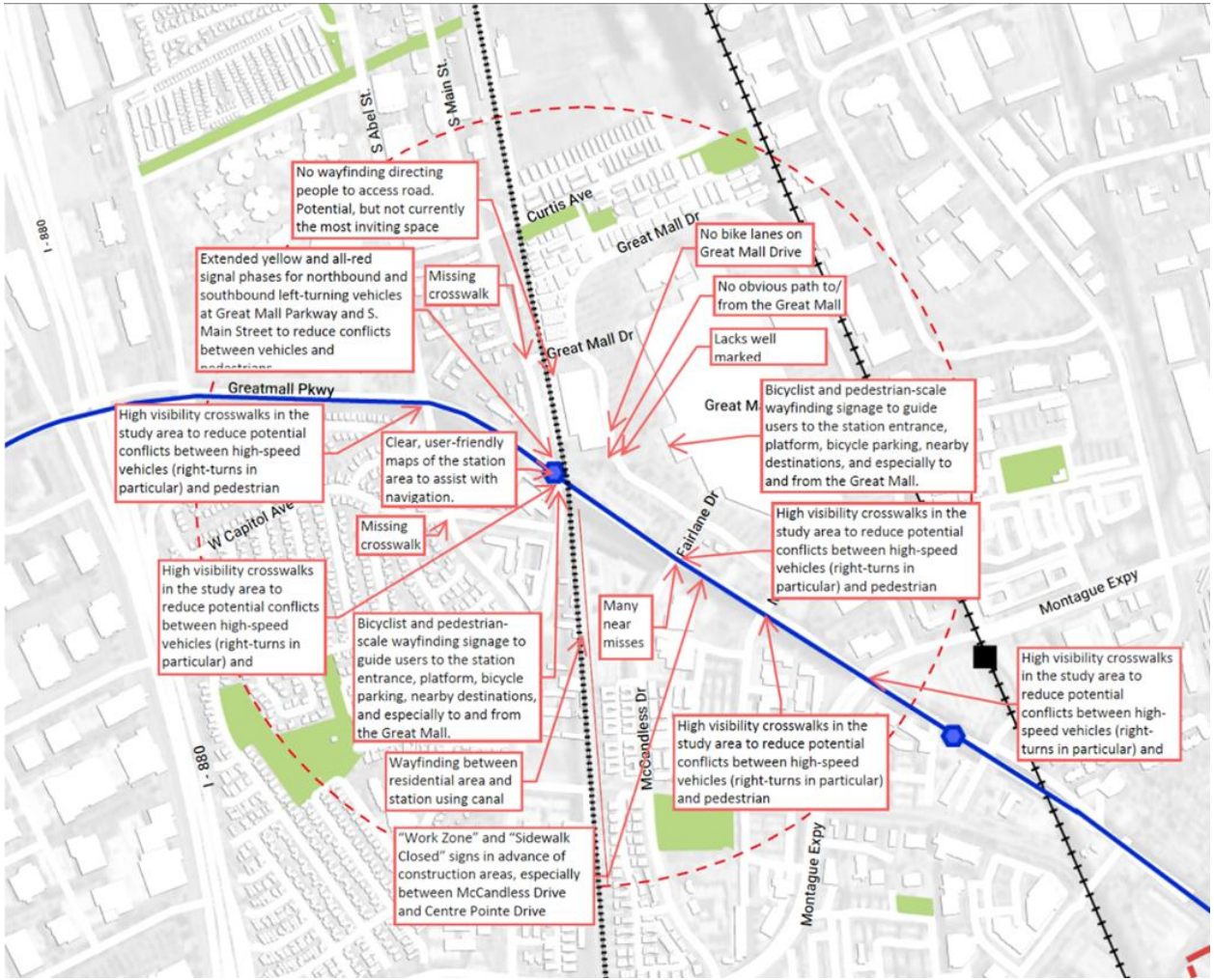
Key Themes and Observations

- **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.

Top Areas of Improvement

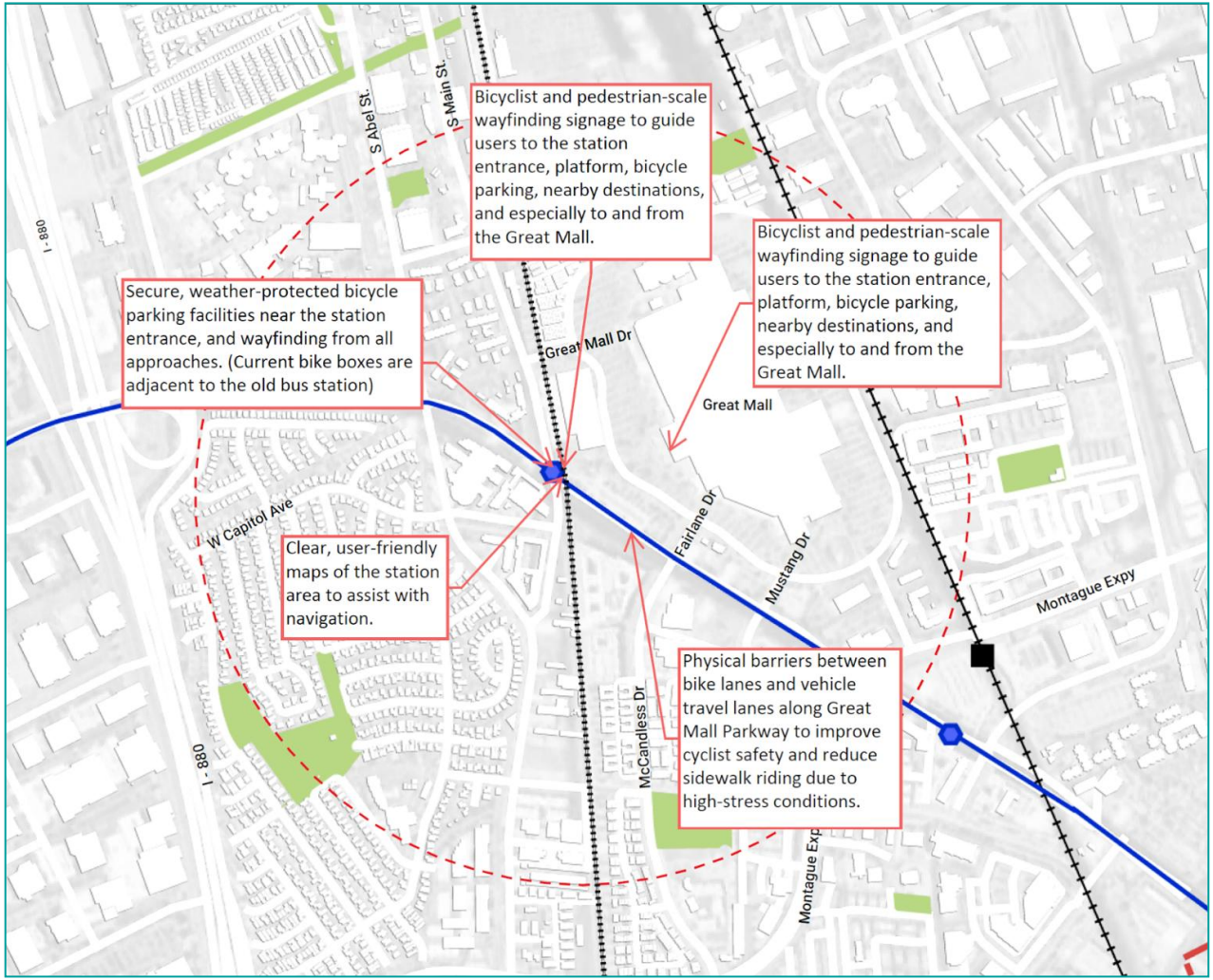
- Enhanced wayfinding and signage, especially around the station and connecting areas.
- Improvements to bike and pedestrian infrastructure, including expanded bike lanes, more visible crosswalks, and secured bike parking.
- Greater emphasis on beautification, public art, and placemaking.
- Improved 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 development and mall
- Work with Union Pacific freight railroad to improve visual/auditory experience around tracks

Appendix C: TOD Needs Assessment



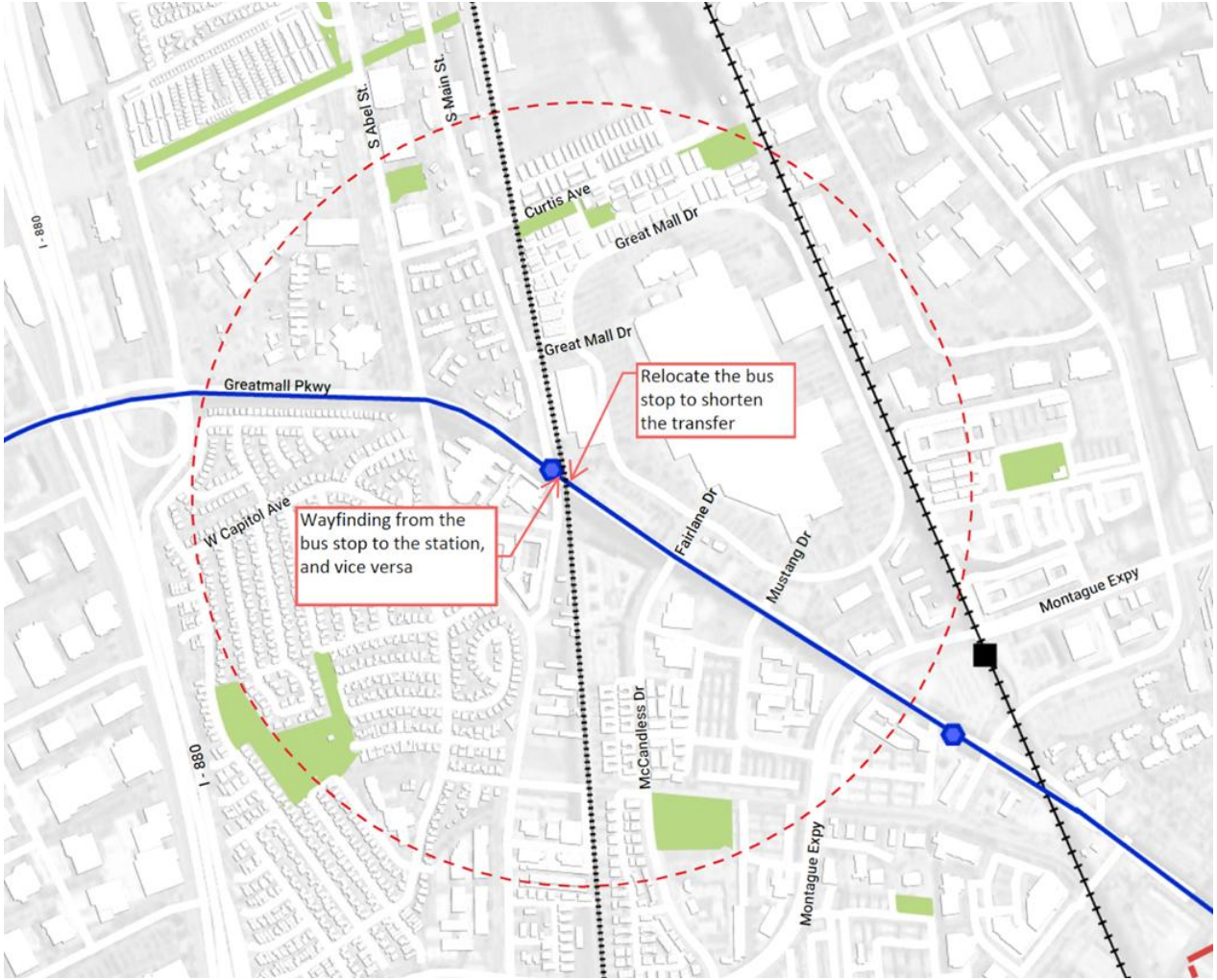
Appendix C1

Pedestrian Network Observations and Gaps



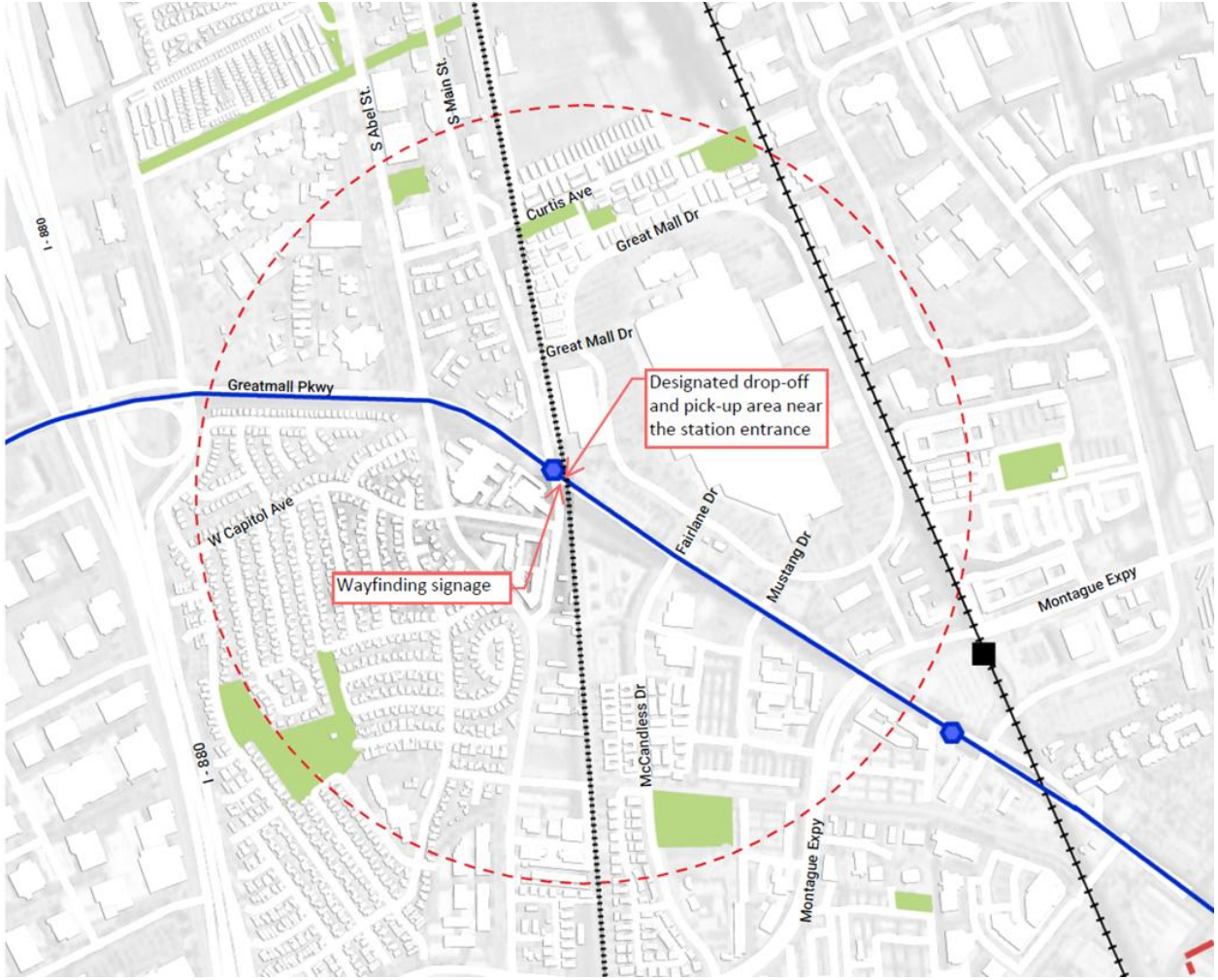
Appendix C2

Bicycle Network Observations and Gaps



Appendix C3

Transit Network Observations and Gaps



Appendix C4

Vehicular Network Observations and Gaps

Appendix D – Priority Scores

Type	ID	Recommendations	Improves Connectivity to Transit	Improves Accessibility	Community Integration	Coordination With Planned Projects	Improves Safety	Constructability	Proximity to Station	Community Preference (bonus)	Normalized Total Score
Category 1 – Great Mall Station & Surrounding Area		**Great Mall Station**									
	P1-	Add elevator and bridge from South side of Great Mall Parkway to VTA light rail station	1.0	1	0	1	0.3	0.3	1.0	1.0	**0.70**
	P12-	Conduct a lighting study to determine the appropriate amount of lighting to add under LRT track at station	0.3	0	0	0	0.3	0.3	1.0	0.0	**0.27**
	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)	0.3	0	0	0	0.3	0.6	0.6	0.0	**0.26**
	P18-	Add maps of surrounding area at station. Both on platform and at ground level.	0.3	0	0	0	0.3	1	1.0	0.0	**0.37**
	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)	0.6	1	0	0	0.3	1	1.0	0.0	**0.56**
	T1-	Move bus stop to base of light rail station (need to take the turn pocket into consideration), add wayfinding between them	1.0	1	0	0	0.3	1	1.0	1.0	**0.66**
	T2-	Update VTA Bus Stop and Passenger Facilities Design Criteria and Standards to provide better facilities at basic bus stops. Also see PM1	0.6	1	0	0	0.3	0.6	0.6	0.0	**0.44**
	T3-	Add signage/branding to station, complemented by wayfinding directing people to the station	0.3	0	0	1	0.3	1	0.6	0.0	**0.46**
	T4-	Live Transit displays at street level before crossing to median	0.6	0	0	0	0.3	1	1.0	1.0	**0.49**
	T5-	Appropriately scaled fully covered platform continuous weather cover	0.3	0	0	0	0.3	1	0.6	1.0	**0.40**
	T6-	Provide directional signage at platform to use the correct exit directing people close their destination	0.3	0	0	0	0.3	1	1.0	0.0	**0.37**
	T7-	Conduct a lighting study to determine the appropriate amount of lighting at station	0.3	0	0	0	0.3	0.6	1.0	0.0	**0.31**
	B1-	Secure, weather-protected bicycle parking facilities near the station entrance.	1.0	0	0	0	0.3	1	1.0	0.3	**0.45**
	B2-	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).	0.3	0	0	0	0.3	0.6	0.6	0.0	**0.26**
	B4-	Add curb ramp as near to station entrance and new bike storage as practical. Include signage in advance and at curb ramp	1.0	0	0	0	0.3	1	1.0	0.0	**0.47**
	V1-	Clearly designated and well-marked drop-off and pick-up zones	0.6	0	0	0	0.3	0.6	1.0	0.0	**0.36**
	V2-	Wayfinding signage and circulation guidance to reduce confusion and unsafe behavior near the station	0.3	0	0	0	0.3	1	1.0	0.0	**0.37**
	PM1-	Create street level presence of the Great Mall Light Rail Station through large bold public art with VTA Great Mall branding to set it apart from Milpitas BART	0.3	0	0	1	0.3	1	1.0	0.3	**0.49**
	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.	1.0	0	1	0	0.3	1	1.0	0.0	**0.61**
	PM5-	Create a themed, shaded pathway with festive lighting and a landscape connecting the two nodes.	0.3	0	1	1	0.3	0.6	0.6	0.0	**0.54**
	PM6-	Add appropriate crosswalk, sidewalk, curb ramps between Great Mall Station and the Great Mall entrance	1.0	1	0	1	0.6	0.6	0.6	0.0	**0.69**
	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.	0.3	0	0	1	0.3	0.6	0.6	0.0	**0.40**

Type	ID	Recommendations	Improves Connectivity to Transit	Improves Accessibility	Community Integration	Coordination With Planned Projects	Improves Safety	Constructability	Proximity to Station	Community Preference (bonus)	Normalized Total Score
Category 2 – Intersections		**Great Mall Pkwy & S Main St**									
	P3-	Increase the distance between the vehicle stop bar and the crosswalk to improve safety	0.3	0	0	0	1	0.6	0.6	1.0	**0.44**
	P4-	Enhance lighting at the intersection and on the crosswalks to make crossing pedestrians more visible to vehicles	0.3	0	0	0	1	0.6	0.6	1.0	**0.44**
	P5-	Make crosswalk perpendicular to the road to reduce crossing distance	0.3	0	0	0	0.3	0.6	0.6	1.0	**0.35**
	P8-	Conduct a signal operation study to evaluate pedestrian recall (a walk signal is provided automatically with every cycle).	0.3	1	0	0	0.3	0.3	0.6	1.0	**0.44**
	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.	0.3	1	0	0	0.6	0.3	1.0	1.0	**0.53**
	P13-	Repair damaged sidewalks and remove obstructions	1.0	1	0	0	1	0.6	1.0	1.0	**0.70**
	P15-	Fill in slip lanes. Vehicles turn at intersection.	0.6	0	0	0	1	0.3	0.6	1.0	**0.44**
	P16-	Relocate the pedestrian beacon at Great Mall Pkwy/S Main SE corner and make it visible for left turn vehicles	0.6	0	0	0	0.6	0.6	1.0	1.0	**0.48**
	B3-	Conduct a signal operation study to evaluate adding dedicated bike phase and prohibit turn on red.	0.3	0	0	1	0.6	0.6	0.6	1.0	**0.51**
		Great Mall Pkwy & McCandless Dr									
	P3-	Increase the distance between the vehicle stop bar and the crosswalk to improve safety	0.3	0	0	0	1	0.6	0.6	1.0	**0.44**
	P4-	Enhance lighting at the intersection and on the crosswalks to make crossing pedestrians more visible to vehicles	0.3	0	0	0	1	0.6	0.6	1.0	**0.44**
	P6-	Add pedestrian refuge islands for crossing Great Mall Parkway (potentially by extending median under the elevated track).	0.3	1	0	0	0.6	0.6	0.6	1.0	**0.51**
	P7-	Conduct a signal operation study to evaluate two-stage pedestrian crossing.	0.3	1	0	0	0.6	0.3	0.6	1.0	**0.48**
	P8-	Conduct a signal operation study to evaluate pedestrian recall (a walk signal is provided automatically with every cycle).	0.3	1	0	0	0.3	0.3	0.6	1.0	**0.44**
	B3-	Conduct a signal operation study to evaluate adding dedicated bike phase and prohibit turn on red.	0.3	0	0	1	0.6	0.6	0.6	1.0	**0.51**
		Great Mall Pkwy & Center Point Dr									
	P3-	Increase the distance between the vehicle stop bar and the crosswalk to improve safety	0.3	0	0	0	1	0.6	0.6	0.0	**0.36**
	P4-	Enhance lighting at the intersection and on the crosswalks to make crossing pedestrians more visible to vehicles	0.3	0	0	0	1	0.6	0.6	0.0	**0.36**
	P6-	Add pedestrian refuge islands for crossing Great Mall Parkway (potentially by extending median under the elevated track).	0.3	1	0	0	0.6	0.6	0.6	0.0	**0.44**
	P7-	Conduct a signal operation study to evaluate two-stage pedestrian crossing.	0.3	1	0	0	0.6	0.3	0.6	0.0	**0.40**
	P8-	Conduct a signal operation study to evaluate pedestrian recall (a walk signal is provided automatically with every cycle).	0.3	1	0	0	0.3	0.3	0.6	0.0	**0.36**
	B3-	Conduct a signal operation study to evaluate adding dedicated bike phase and prohibit turn on red.	0.3	0	0	1	0.6	0.6	0.6	0.0	**0.44**
		Great Mall Pkwy & Montague Expressway									
	P3-	Increase the distance between the vehicle stop bar and the crosswalk to improve safety	0.3	0	0	0	1	0.6	0.6	1.0	**0.44**
	P4-	Enhance lighting at the intersection and on the crosswalks to make crossing pedestrians more visible to vehicles	0.3	0	0	0	1	0.6	0.6	1.0	**0.44**
	P6-	Add pedestrian refuge islands for crossing Great Mall Parkway (potentially by extending median under the elevated track).	0.3	1	0	0	0.6	0.6	0.6	1.0	**0.51**
	P7-	Conduct a signal operation study to evaluate two-stage pedestrian crossing.	0.3	1	0	0	0.6	0.3	0.6	1.0	**0.48**
	P15-	Fill in slip lanes. Vehicles turn at intersection.	0.6	0	0	0	1	0.3	0.6	1.0	**0.44**
	B3-	Conduct a signal operation study to evaluate adding dedicated bike phase and prohibit turn on red.	0.3	0	0	1	0.6	0.6	0.6	1.0	**0.51**

Type	ID	Recommendations	Improves Connectivity to Transit	Improves Accessibility	Community Integration	Coordination With Planned Projects	Improves Safety	Constructability	Proximity to Station	Community Preference (bonus)	Normalized Total Score
Category 2 – Intersections		**Great Mall Pkwy & S Abel St**									
	P4-	Enhance lighting at the intersection and on the crosswalks to make crossing pedestrians more visible to vehicles	0.3	0	0	0	1	0.6	0.6	0.0	**0.36**
	P5-	Make crosswalk perpendicular to the road to reduce crossing distance	0.3	0	0	0	0.3	0.6	0.6	0.0	**0.26**
	P6-	Add pedestrian refuge islands for crossing Great Mall Parkway (potentially by extending median under the elevated track).	0.3	1	0	0	0.6	0.6	0.6	0.0	**0.44**
	P7-	Conduct a signal operation study to evaluate two-stage pedestrian crossing.	0.3	1	0	0	0.6	0.3	0.6	0.0	**0.40**
	P15-	Fill in slip lanes. Vehicles turn at intersection.	0.6	0	0	0	1	0.3	0.6	0.0	**0.36**
	B3-	Conduct a signal operation study to evaluate adding dedicated bike phase and prohibit turn on red.	0.3	0	0	1	0.6	0.6	0.6	0.0	**0.44**
		Great Mall Dr & Fairlane Dr									
	P11-	Add missing crosswalks - all new/restriped crosswalks should be high visibility ("zebra")	1.0	1	1	0	0.6	0.3	0.3	0.0	**0.60**
		Great Mall Dr & S Main St									
	P11-	Add missing crosswalks - all new/restriped crosswalks should be high visibility ("zebra")	1.0	1	1	0	0.6	0.3	0.3	0.6	**0.60**
		S Abel St & Capitol Ave									
	P11-	Add missing crosswalks - all new/restriped crosswalks should be high visibility ("zebra")	1.0	1	1	0	0.6	0.3	0.3	0.0	**0.60**
		S Abel St & S Main St									
	P11-	Add missing crosswalks - all new/restriped crosswalks should be high visibility ("zebra")	1.0	1	1	0	0.6	0.3	0.3	0.3	**0.56**
	P15-	Fill in slip lanes. Vehicles turn at intersection.	0.6	0	0	0	1	0.3	0.3	0.3	**0.31**
		Curtis Ave & Hammond Way									
	P15-	Fill in slip lanes. Vehicles turn at intersection.	0.6	0	0	0	1	0.3	0.3	0.0	**0.31**
		McCandless Dr & Meadow Creek									
	P14-	Bulbouts where possible, raised crosswalks, high-visibility crosswalk markings, lighting and pedestrian flashing beacon where needed	0.6	0	0	0	0.6	0.6	0.3	0.6	**0.34**
		McCandless Dr & Newbury St									
	P14-	Bulbouts where possible, raised crosswalks, high-visibility crosswalk markings, lighting and pedestrian flashing beacon where needed	0.6	0	0	0	0.6	0.6	0.3	0.0	**0.30**
		McCandless Dr & DeLong Ln									
	P14-	Bulbouts where possible, raised crosswalks, high-visibility crosswalk markings, lighting and pedestrian flashing beacon where needed	0.6	0	0	0	0.6	0.6	0.3	0.0	**0.30**

Type	ID	Recommendations	Improves Connectivity to Transit	Improves Accessibility	Community Integration	Coordination With Planned Projects	Improves Safety	Constructability	Proximity to Station	Community Preference (bonus)	Normalized Total Score
Category 3 – Corridors		**Along Great Mall Parkway**									
	P2-	Narrow vehicle travel lanes to 11', and add protected bicycle lanes with concrete buffer. This will shorten pedestrian crossings by 6-10 feet in either direction.	1.0	0	0	0	1	0.3	0.6	1.0	**0.49**
	P5-	Make crosswalk perpendicular to the road to reduce crossing distance	0.3	0	0	0	0.3	0.6	0.6	0.0	**0.26**
	B5-	Add physical barriers between bike lanes and vehicle travel lanes on Great Mall Parkway and S Main Street	1.0	0	0	1	1	0.6	1.0	1.0	**0.70**
		Along South Main Street									
	B5-	Add physical barriers between bike lanes and vehicle travel lanes on Great Mall Parkway and S Main Street	1.0	0	0	1	1	0.6	1.0	0.6	**0.65**
		Along Great Mall Drive (Private Road)									
	B6-	Add bike lanes on Great Mall Drive (note, this is a private street)	1.0	0	0	0	0.6	0.3	0.3	0.6	**0.35**
		Along the Creek Trails									
	PM2-	Develop trailheads 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.	0.3	0	1	0	0.3	0.6	0.3	0.6	**0.39**
		Along the VTA access road									
	PM4-	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.	1.0	0	1	1	0.3	1	0.6	0.6	**0.69**

Appendix E – Unit Cost

Improvement	Unit	Low	High	2025 Low	2025 High	Source	Notes
Right-Turn Slip Lane Removal(s)	EA	$10,000	$50,000	$12,000	$60,000	City of Santa Clara Pedestrian Master Plan	No utility or storm drain relocations, a 20% inflation is assumed from 2021 to 2025
Standard Crosswalk(s)	EA	$2,000	$40,000	$2,400	$48,000	City of Santa Clara Pedestrian Master Plan	One leg, cost varies by length of crosswalk and color, a 20% inflation is assumed from 2021 to 2025
High Visibility Crosswalk Marking(s)	EA	$10,000	$25,000	$12,000	$30,000	City of Santa Clara Pedestrian Master Plan	One leg, cost varies by length of crosswalk and color, a 20% inflation is assumed from 2021 to 2025
Pedestrian Refuge Island(s)	SF	$8	$15	$10	$18	City of Santa Clara Pedestrian Master Plan	No utility or storm drain relocations. Cost varies with size of crossing, a 20% inflation is assumed from 2021 to 2025
Traffic and Pedestrian Signal Changes	LS	$5,000	$500,000	$6,000	$600,000	City of Santa Clara Pedestrian Master Plan	Per intersection. Costs vary by type of change and equipment required, a 20% inflation is assumed from 2021 to 2025
Signage	EA	$375	$500	$450	$600	City of Santa Clara Pedestrian Master Plan	New sign with foundation and pole, a 20% inflation is assumed from 2021 to 2025
Transit Waiting Area Improvements/Bus Shelter	EA	$50,000	$400,000	$60,000	$480,000	City of Santa Clara Pedestrian Master Plan	Varies by type, a 20% inflation is assumed from 2021 to 2025
Advance Yield/Stop Line(s)	EA	$500	$2,000	$600	$2,400	City of Santa Clara Pedestrian Master Plan	Thermoplastic paint, a 20% inflation is assumed from 2021 to 2025
Curb Extension	EA	$10,000	$50,000	$12,000	$60,000	City of Santa Clara Pedestrian Master Plan	Per corner. No utility or strorm drain relocations. Cost depends on size of intersection, whether regrading of intersection required, a 20% inflation is assumed from 2021 to 2025
Class II Bike Lane	Mile	$80,000	$423,000	$104,000	$550,000	City of Santa Clara Bicycle Master Plan	High cost estimate assumes $8 per square foot for roadway grinding, overlay, and slurry seal for an 80 feet wide roadway, a 30% inflation is assumed from 2018 to 2025
Class IV Separated Bikeway	Mile	$250,000	$350,000	$325,000	$455,000	City of Santa Clara Bicycle Master Plan	Assumes painted buffer with flexible post separation; can be higher with more separation, a 30% inflation is assumed from 2018 to 2025
Bike Lockers	EA	$1,280	$2,680	$1,800	$3,800	FHWA Paper: Costs for Pedestrian and Bic	A 40% inflation is assumed from 2013 to 2025
Bike Signal and Detection	EA	$5,000	$7,500	$6,000	$9,000	Los Angeles River Path Project	Loop detection, a 20% inflation is assumed from 2021 to 2025
Sidewalk	LF	$150	$200	$155	$206	Bay Trail Gap Closure Implementation Plar	Demolition and construction, a 3% inflation is assumed from 2021 to 2025
Overhead Crosswalk Lighting	LS	$5,000	$20,000	$6,000	$24,000	City of Santa Clara Pedestrian Master Plan	A 20% inflation is assumed from 2021 to 2025
Raised Pedestrian Crossing(s)	EA	$5,000	$20,000	$6,000	$24,000	City of Santa Clara Pedestrian Master Plan	A 20% inflation is assumed from 2021 to 2025

Note: 1. EA=each, SF=square foot, LS=lump sum, LF=linear feet

Appendix F – Cost Estimates

Type	ID	Recommendations	Detailed Cost	Total Cost - Low	Total Cost - High	Phasing Considerations
Category 1 – Great Mall Station & Surrounding Area		**Great Mall Station**	**Station Area Total**	**$ 5,810,300.00**	**$ 18,857,400.00**	
	P1-	Add elevator and bridge from South side of Great Mall Parkway to VTA light rail station	Elevator - $2-5M, Bridge - $1-5M	$ 3,000,000.00	$ 10,000,000.00	Mid-term
	P12-	Conduct a lighting study to determine the appropriate amount of lighting to add under LRT track at station	Lighting study $20,000-50,000	$ 20,000.00	$ 50,000.00	Short-term
	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)	Signage $450-600/ea, 20 total	$ 9,000.00	$ 12,000.00	Immediate-term
	P18-	Add maps of surrounding area at station. Both on platform and at ground level.	Maps $250-750/ea, 4 locations	$ 4,000.00	$ 12,000.00	Immediate-term
	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)	minimal, mostly labor cost	$ 200.00	$ 800.00	Immediate-term
	T1-	Move bus stop to base of light rail station (need to take the turn pocket into consideration), add wayfinding between them	relocation basic $3000, with amenity $30000, 2 locations	$ 6,000.00	$ 60,000.00	Immediate-term
	T2-	Update VTA Bus Stop and Passenger Facilities Design Criteria and Standards to provide better facilities at basic bus stops. Also see PM1	$20,000-50,000 per bus stop, 2 locations	$ 40,000.00	$ 100,000.00	Mid-term
	T3-	Add signage/branding to station, complemented by wayfinding directing people to the station	Signage $450-600/ea, LED sign $5,000–$15,000	$ 15,400.00	$ 37,200.00	Immediate-term
	T4-	Live Transit displays at street level before crossing to median	Screen $5,000-15,000/ea, 4 locations	$ 20,000.00	$ 60,000.00	Immediate-term
	T5-	Appropriately scaled fully covered platform continuous weather cover	Shelter $30,000-50,000/ea, 3 shelters	$ 90,000.00	$ 150,000.00	Short-term
	T6-	Provide directional signage at platform to use the correct exit directing people close their destination	Signage $450-600/ea, 6 locations	$ 2,700.00	$ 3,600.00	Immediate-term
	T7-	Conduct a lighting study to determine the appropriate amount of lighting at station	Lighting study $20,000-50,000	$ 20,000.00	$ 50,000.00	Short-term
	B1-	Secure, weather-protected bicycle parking facilities near the station entrance.	Bike locker $1,800-3,800, 2 locations	$ 3,600.00	$ 7,600.00	Immediate-term
	B2-	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).	Signage $450-600/ea, 20 locations	$ 9,000.00	$ 12,000.00	Immediate-term
	B4-	Add curb ramp as near to station entrance and new bike storage as practical. Include signage in advance and at curb ramp	Curb Ramp $10,000-80,000, 4 locations	$ 40,000.00	$ 320,000.00	Short-term
	V1-	Clearly designated and well-marked drop-off and pick-up zones	Curbside with Signage and Striping $25,000–$75,000	$ 25,000.00	$ 75,000.00	Immediate-term
	V2-	Wayfinding signage and circulation guidance to reduce confusion and unsafe behavior near the station	Signage $450-600/ea, 12 locations	$ 5,400.00	$ 7,200.00	Immediate-term
	PM1-	Create street level presence of the Great Mall Light Rail Station through large bold public art with VTA Great Mall branding to set it apart from Milpitas BART	Collaborate with local community groups and local artists to paint the over bridge structure.	$ 50,000.00	$ 100,000.00	Short-term
	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.	Work with TOD developer to create a well-integrated transit plaza/mobility hub. Cost to be based on the design of the transit plaza.	$ 2,000,000.00	$ 5,000,000.00	Short-term
	PM5-	Create a themed, shaded pathway with festive lighting and a landscape connecting the two nodes.	Collaborate with Simons to create an experiential path on the entire property.	$ 250,000.00	$ 2,500,000.00	Short-term
	PM6-	Add appropriate crosswalk, sidewalk, curb ramps between Great Mall Station and the Great Mall entrance	Collaborate with Simons to create an experiential path on the entire property.	$ 100,000.00	$ 150,000.00	Short-term
	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.	Collaborate with Simons to create an experiential path on the entire property.	$ 100,000.00	$ 150,000.00	Short-term

Type	ID	Recommendations	Detailed Cost	Total Cost - Low	Total Cost - High	Phasing Considerations
Category 2 – Intersections		**Great Mall Pkwy & S Main St**	**Intersection Total**	**$ 74,300.00**	**$ 248,920.00**	
	P3-	Increase the distance between the vehicle stop bar and the crosswalk to improve safety	Advance Yield/Stop Line(s) $600-2,400, 2 per intersection	$ 1,200.00	$ 4,800.00	Immediate-term
	P4-	Enhance lighting at the intersection and on the crosswalks to make crossing pedestrians more visible to vehicles	Overhead crosswalk lighting	$ 5,000.00	$ 20,000.00	Short-term
	P5-	Make crosswalk perpendicular to the road to reduce crossing distance	High Visibility Crosswalk Marking(s) $12,000-30,000, 2 per intersection	$ 24,000.00	$ 60,000.00	Short-term
	P8-	Conduct a signal operation study to evaluate pedestrian recall (a walk signal is provided automatically with every cycle).	Signal study $6,000-10,000/ea	$ 6,000.00	$ 10,000.00	Short-term
	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.	Covered by P8	$ -	$ -	Short-term
	P13-	Repair damaged sidewalks and remove obstructions	Sidewalk $155-206/linear foot, 20 feet total	$ 3,100.00	$ 4,120.00	Immediate-term
	P15-	Fill in slip lanes. Vehicles turn at intersection.	Right-Turn Slip Lane Removal(s) $12,000-60,000, 2 locations	$ 24,000.00	$ 120,000.00	Mid-term
	P16-	Relocate the pedestrian beacon at Great Mall Pkwy/S Main SE corner and make it visible for left turn vehicles	Relocate ped beacon	$ 5,000.00	$ 20,000.00	Immediate-term
	B3-	Conduct a signal operation study to evaluate adding dedicated bike phase and prohibit turn on red.	Signal study $6,000-10,000/ea, could be overlapped with P7 & P8	$ 6,000.00	$ 10,000.00	Short-term
		Great Mall Pkwy & McCandless Dr	**Intersection Total**	**$ 36,200.00**	**$ 78,000.00**	
	P3-	Increase the distance between the vehicle stop bar and the crosswalk to improve safety	Advance Yield/Stop Line(s) $600-2,400, 2 per intersection	$ 1,200.00	$ 4,800.00	Immediate-term
	P4-	Enhance lighting at the intersection and on the crosswalks to make crossing pedestrians more visible to vehicles	Overhead crosswalk lighting	$ 5,000.00	$ 20,000.00	Short-term
	P6-	Add pedestrian refuge islands for crossing Great Mall Parkway (potentially by extending median under the elevated track).	Pedestrian Refuge Island(s) $10-18/sqft, 2,400 sq ft	$ 24,000.00	$ 43,200.00	Mid-term
	P7-	Conduct a signal operation study to evaluate two-stage pedestrian crossing.	Signal study $6,000-10,000/ea	$ 6,000.00	$ 10,000.00	Short-term
	P8-	Conduct a signal operation study to evaluate pedestrian recall (a walk signal is provided automatically with every cycle).	Covered by P7	$ -	$ -	Short-term
	B3-	Conduct a signal operation study to evaluate adding dedicated bike phase and prohibit turn on red.	Covered by P7	$ -	$ -	Short-term
		Great Mall Pkwy & Center Point Dr	**Intersection Total**	**$ 36,200.00**	**$ 78,000.00**	
	P3-	Increase the distance between the vehicle stop bar and the crosswalk to improve safety	Advance Yield/Stop Line(s) $600-2,400, 2 per intersection	$ 1,200.00	$ 4,800.00	Immediate-term
	P4-	Enhance lighting at the intersection and on the crosswalks to make crossing pedestrians more visible to vehicles	Overhead crosswalk lighting	$ 5,000.00	$ 20,000.00	Short-term
	P6-	Add pedestrian refuge islands for crossing Great Mall Parkway (potentially by extending median under the elevated track).	Pedestrian Refuge Island(s) $10-18/sqft, 2,400 sq ft	$ 24,000.00	$ 43,200.00	Mid-term
	P7-	Conduct a signal operation study to evaluate two-stage pedestrian crossing.	Signal study $6,000-10,000/ea	$ 6,000.00	$ 10,000.00	Short-term
	P8-	Conduct a signal operation study to evaluate pedestrian recall (a walk signal is provided automatically with every cycle).	Covered by P7	$ -	$ -	Short-term
	B3-	Conduct a signal operation study to evaluate adding dedicated bike phase and prohibit turn on red.	Covered by P7	$ -	$ -	Short-term
		Great Mall Pkwy & Montague Expressway	**Intersection Total**	**$ 60,200.00**	**$ 198,000.00**	
	P3-	Increase the distance between the vehicle stop bar and the crosswalk to improve safety	Advance Yield/Stop Line(s) $600-2,400, 2 per intersection	$ 1,200.00	$ 4,800.00	Immediate-term
	P4-	Enhance lighting at the intersection and on the crosswalks to make crossing pedestrians more visible to vehicles	Overhead crosswalk lighting	$ 5,000.00	$ 20,000.00	Short-term
	P6-	Add pedestrian refuge islands for crossing Great Mall Parkway (potentially by extending median under the elevated track).	Pedestrian Refuge Island(s) $10-18/sqft, 2,400 sq ft	$ 24,000.00	$ 43,200.00	Mid-term
	P7-	Conduct a signal operation study to evaluate two-stage pedestrian crossing.	Signal study $6,000-10,000/ea	$ 6,000.00	$ 10,000.00	Short-term

Type	ID	Recommendations	Detailed Cost	Total Cost - Low	Total Cost - High	Phasing Considerations
Category 2 – Intersections	P15-	Fill in slip lanes. Vehicles turn at intersection.	Right-Turn Slip Lane Removal(s) $12,000-60,000, 2 locations	$ 24,000.00	$ 120,000.00	Mid-term
	B3-	Conduct a signal operation study to evaluate adding dedicated bike phase and prohibit turn on red.	Covered by P7	$ -	$ -	Short-term
		Great Mall Pkwy & S Abel St	**Intersection Total**	**$ 71,000.00**	**$ 193,200.00**	
	P4-	Enhance lighting at the intersection and on the crosswalks to make crossing pedestrians more visible to vehicles	Overhead crosswalk lighting	$ 5,000.00	$ 20,000.00	Short-term
	P5-	Make crosswalk perpendicular to the road to reduce crossing distance	High Visibility Crosswalk Marking(s) $12,000-30,000, 2 per intersection	$ 24,000.00	$ 60,000.00	Short-term
	P6-	Add pedestrian refuge islands for crossing Great Mall Parkway (potentially by extending median under the elevated track).	Pedestrian Refuge Island(s) $10-18/sqft, 2,400 sq ft	$ 24,000.00	$ 43,200.00	Mid-term
	P7-	Conduct a signal operation study to evaluate two-stage pedestrian crossing.	Signal study $6,000-10,000/ea	$ 6,000.00	$ 10,000.00	Short-term
	P15-	Fill in slip lanes. Vehicles turn at intersection.	Right-Turn Slip Lane Removal(s) $12,000-60,000	$ 12,000.00	$ 60,000.00	Mid-term
	B3-	Conduct a signal operation study to evaluate adding dedicated bike phase and prohibit turn on red.	Covered by P7	$ -	$ -	Short-term
		Great Mall Dr & Fairlane Dr	**Intersection Total**	**$ 24,000.00**	**$ 60,000.00**	
	P11-	Add missing crosswalks - all new/restriped crosswalks should be high visibility ("zebra")	High Visibility Crosswalk Marking(s) $12,000-30,000, 2 per intersection	$ 24,000.00	$ 60,000.00	Short-term
		Great Mall Dr & S Main St	**Intersection Total**	**$ 12,000.00**	**$ 30,000.00**	
	P11-	Add missing crosswalks - all new/restriped crosswalks should be high visibility ("zebra")	High Visibility Crosswalk Marking(s) $12,000-30,000, 2 per intersection	$ 12,000.00	$ 30,000.00	Short-term
		S Abel St & Capitol Ave	**Intersection Total**	**$ 12,000.00**	**$ 30,000.00**	
	P11-	Add missing crosswalks - all new/restriped crosswalks should be high visibility ("zebra")	High Visibility Crosswalk Marking(s) $12,000-30,000, 2 per intersection	$ 12,000.00	$ 30,000.00	Short-term
		S Abel St & S Main St	**Intersection Total**	**$ 24,000.00**	**$ 90,000.00**	
	P11-	Add missing crosswalks - all new/restriped crosswalks should be high visibility ("zebra")	High Visibility Crosswalk Marking(s) $12,000-30,000, 2 per intersection	$ 12,000.00	$ 30,000.00	Short-term
	P15-	Fill in slip lanes. Vehicles turn at intersection.	Right-Turn Slip Lane Removal(s) $12,000-60,000	$ 12,000.00	$ 60,000.00	Mid-term
		Curtis Ave & Hammond Way	**Intersection Total**	**$ 12,000.00**	**$ 60,000.00**	
	P15-	Fill in slip lanes. Vehicles turn at intersection.	Right-Turn Slip Lane Removal(s) $12,000-60,000	$ 12,000.00	$ 60,000.00	Mid-term
		McCandless Dr & Meadow Creek	**Intersection Total**	**$ 15,000.00**	**$ 160,000.00**	
	P14-	Bulbouts where possible, raised crosswalks, high-visibility crosswalk markings, lighting and pedestrian flashing beacon where needed	raised crosswalks $5,000-20,000, crosswalk lighting $5,000-20,000, bulbout $40,000-$80,000 per corner	$ 15,000.00	$ 160,000.00	Short-term
		McCandless Dr & Newbury St	**Intersection Total**	**$ 15,000.00**	**$ 160,000.00**	
	P14-	Bulbouts where possible, raised crosswalks, high-visibility crosswalk markings, lighting and pedestrian flashing beacon where needed	raised crosswalks $5,000-20,000, crosswalk lighting $5,000-20,000, bulbout $40,000-$80,000 per corner	$ 15,000.00	$ 160,000.00	Short-term
		McCandless Dr & DeLong Ln	**Intersection Total**	**$ 15,000.00**	**$ 160,000.00**	
	P14-	Bulbouts where possible, raised crosswalks, high-visibility crosswalk markings, lighting and pedestrian flashing beacon where needed	raised crosswalks $5,000-20,000, crosswalk lighting $5,000-20,000, bulbout $40,000-$80,000 per corner	$ 15,000.00	$ 160,000.00	Short-term

Type	ID	Recommendations	Detailed Cost	Total Cost - Low	Total Cost - High	Phasing Considerations
Category 3 – Corridors		**Along Great Mall Parkway**	**Corridor Total**	**$ 397,000.00**	**$ 635,000.00**	
	P2-	Narrow vehicle travel lanes to 11', and add protected bicycle lanes with concrete buffer. This will shorten pedestrian crossings by 6-10 feet in either direction.	Per mile, 1 mile total	$ 325,000.00	$ 455,000.00	Mid-term
	P5-	Make crosswalk perpendicular to the road to reduce crossing distance	High Visibility Crosswalk Marking(s) $12,000-30,000, 2 per intersection	$ 72,000.00	$ 180,000.00	Short-term
	B5-	Add physical barriers between bike lanes and vehicle travel lanes on Great Mall Parkway and S Main Street	Covered by P2	$ -	$ -	Mid-term
		Along South Main Street	**Corridor Total**	**$ 325,000.00**	**$ 455,000.00**	
	B5-	Add physical barriers between bike lanes and vehicle travel lanes on Great Mall Parkway and S Main Street	Per mile, 1 mile total	$ 325,000.00	$ 455,000.00	Mid-term
		Along Great Mall Drive (Private Road)	**Corridor Total**	**$ 156,000.00**	**$ 825,000.00**	
	B6-	Add bike lanes on Great Mall Drive (note, this is a private street)	Per mile, 1.5 mile total	$ 156,000.00	$ 825,000.00	Mid-term
		Along the Creek Trails	**Corridor Total**	**$ 250,000.00**	**$ 2,500,000.00**	
	PM2-	Develop trailheads 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.	Collaborate with Valley Water district to place directional signage towards VTA light rail station. Additionally, connect the missing links in the trail as recommended in the Bike-Ped master plan.	$ 250,000.00	$ 2,500,000.00	Short-term
		Along the VTA access road	**Corridor Total**	**$ 50,000.00**	**$ 200,000.00**	
	PM4-	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.	Collaborate with local artists and the City to activate the alley. Provide basic amenities like electric hook-up for food trucks. Allow three trucks to operate until the last train service.	$ 50,000.00	$ 200,000.00	Short-term