



RIVER OAKS STATION ACCESS STUDY

Final Report – January 2026



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INTRODUCTION

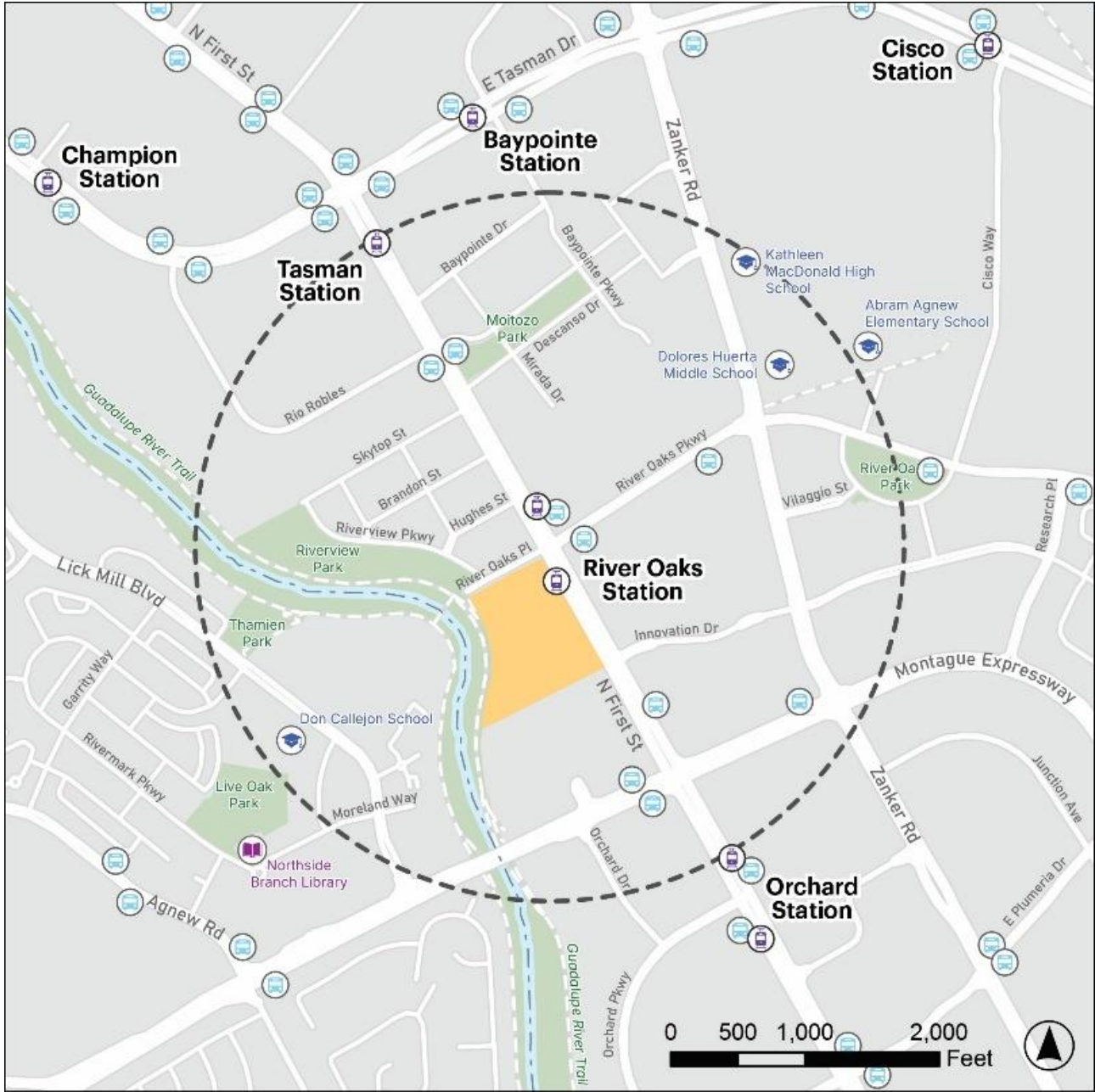
The Santa Clara Valley Transportation Authority (VTA) conducted the River Oaks Station Access Study (Study), in coordination with the River Oaks Station Transit-Oriented Development (TOD) Project, to analyze multimodal access to and from the River Oaks Light Rail Station and future TOD site. VTA plans to develop their 17-acre headquarters site and park-and-ride lot for transit users into higher density development, which offers the potential to improve transit accessibility, reduce congestion, and boost transit ridership.

The River Oaks Light Rail Station is located at the intersection of North First Street and River Oaks Place/River Oaks Parkway within the City of San José, as shown in **Figure 1**. The station is served by VTA's Light Rail Blue and Green lines, which provide convenient access to Downtown San José, San José Diridon Station, Levi's Stadium, and major employers along the North First Street corridor. Connections to the Guadalupe River Trail, a major regional trail, and the River Oaks Bridge, a pedestrian and bicycle bridge to the City of Santa Clara, are located near the station. While the Station is well-positioned to serve these destinations, first/last mile connectivity gaps may prevent some riders from biking and walking to the Station or using transit altogether.

As part of the site development effort, VTA analyzed multimodal access to River Oaks Light Rail Station within a half-mile radius of the Station. The Study also included two rounds of public outreach, which was guided by the public outreach and community engagement plan included in **Appendix A**. This report summarizes the findings of the existing conditions review, feedback received during outreach, recommended access improvements both on the site and along nearby streets, and project prioritization.



Figure 1: Study Area Map



Legend

- Study Area
- River Oaks TOD Site
- Light Rail Station
- Bus Stop
- School
- Library



EXISTING CONDITIONS OVERVIEW



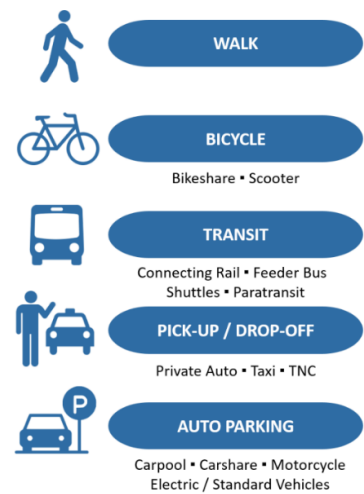
EXISTING CONDITIONS OVERVIEW

Prior to generating access recommendations, the Study evaluated the existing station access conditions around River Oaks Station to identify potential needs for improvement. This analysis reviewed existing planning documents from relevant jurisdictions, examined relevant collision and traffic data, and identified existing station access infrastructure. The project team also conducted a site visit to identify additional needs. Concurrently, the first round of public outreach collected the challenges experienced by residents, employers, and other stakeholders. This section summarizes the key findings from the existing conditions review; the full Existing Conditions report is included in **Appendix B**.

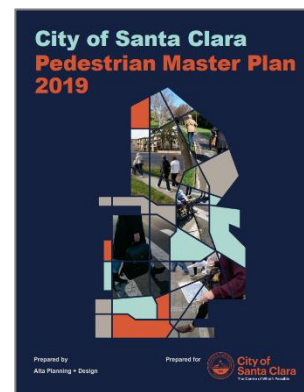
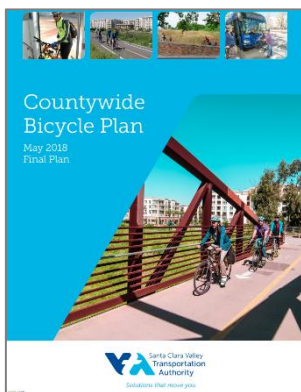
Previous Plan Review

This Study examined a range of relevant planning documents from VTA, the County of Santa Clara, the City of San José, and the City of Santa Clara. Key takeaways from these plans include:

- **VTA policies:** These policies guide VTA’s approach to station access and development surrounding transit, which seek to increase ridership, promote sustainable development, and engage stakeholders.
- **Active transportation:** These plans describe each jurisdiction’s vision for an expanded and interconnected walking and bicycle infrastructure network. Improvements identified within these plans served as the basis for this Study’s access recommendations.
- **Planning for specific improvements:** This includes VTA’s planning efforts to improve the speed and safety for the light rail, and the City of San José’s plans to improve the connectivity of the Guadalupe River Trail.
- **Connect North San José:** The City of San José has been conducting a Multimodal Transportation Improvement Plan (MTIP), which also identifies future transportation improvements. City staff were engaged throughout this Study to ensure this access study aligns with the findings of the MTIP.



VTA's Station Access Hierarchy





Existing Collision and Traffic Data

According to data from UC Berkeley’s Transportation Injury Mapping System (TIMS), between January 1, 2019, and December 31, 2024, there have been 50 recorded collisions that resulted in an injury within a half-mile radius of River Oaks Station. Out of these collisions, 1 involved a pedestrian and 4 involved bicycles. Notably, two bicycle collisions occurred at the North First Street and River Oaks Parkway intersection adjacent to River Oaks Station, both of which were broadside collisions. One bicycle collision at the intersection of Montague Expressway and Orchard Drive resulted in a severe injury: this collision involved a head-on collision between an eastbound vehicle and a northbound bicycle; the bicycle was determined to be at fault.

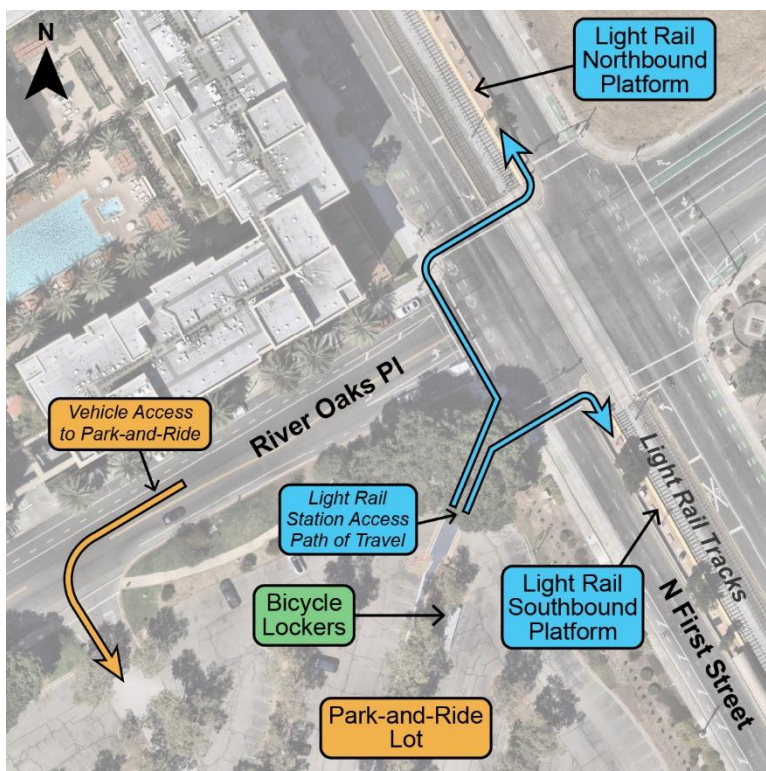


Traffic volume data was collected on Tuesday, April 22, 2025. The highest pedestrian and bicycle activity is concentrated on the Guadalupe River Trail. High activity is also observed at the North First Street and River Oaks Parkway/Place intersection due to the light rail station. Bicycle activity at the intersection is predominantly in the east-west direction, suggesting that River Oaks Parkway is an important bicycle corridor connecting the Guadalupe River Trail, River Oaks Station, and destinations to the east.

Existing Transit, Bicycle, and Pedestrian Conditions

River Oaks Station is located at the intersection of North First Street with River Oaks Parkway/River Oaks Place. **Figure 2** shows the layout of the Station and the nearby park-and-ride lot. The light rail tracks run on the center median of North First Street. There are two platforms at River Oaks Station: the northbound platform is located at the north leg of the intersection, and the southbound platform is at the south leg of the intersection. Both platforms are accessed through crosswalks at the intersection, which all have directional curb ramps. The future TOD site to the southwest of the station currently serves as a park-and-ride lot, with vehicle access on both River Oaks Place and the southbound direction of North First Street. The park-and-ride lot also features secure bicycle lockers and electric vehicle charging stations.

Figure 2: River Oaks Station and Park-and-Ride Layout





River Oaks Station is served by the Blue and Green light rail lines, which both operate at 15-minute frequencies. Two bus routes directly connect to River Oaks Station: ACE Brown Route (a peak-hour shuttle service to Great America ACE/Amtrak Station), and Route 203 (a late-night light rail replacement service). There are two bus stops at the intersection: on the east leg in the eastbound direction, which includes a bus shelter, and on the north leg in the northbound direction, which includes a bench. Additionally, the station is within the service area of ACCESS, VTA's paratransit service that offers on-demand transit to passengers that are unable to use the bus and light rail services.

Figure 3 shows VTA ridership by stop. While River Oaks Station sees 419 total light rail riders per day, neighboring stops along Tasman Drive see much greater ridership. The low ridership may reflect the access challenges and low connecting bus frequency around River Oaks Station.

The Guadalupe River Trail is a Class I multi-use path that is located west of the TOD site, connecting Downtown San José to the south and Alviso to the north. VTA has identified it as a “bicycle superhighway”, which is one of ten corridors in the County that provide the lowest-stress facility feasible and serve as the backbone of the County’s bicycle network. The trail can be accessed from the east at the end of River Oaks Place, and from the west via the River Oaks Bridge and another multi-use path ending in Thamien Park. A third connection from Montague Expressway is possible, but the lack of a sidewalk or bicycle facilities on Montague Expressway makes this connection uncomfortable for all ages and abilities.

Figure 4 summarizes the bicycle and pedestrian conditions near River Oaks Station. Most streets in the area have sidewalks, and major corridors have bicycle facilities. However, large block sizes and infrequent crossings are challenging for station access and overall connectivity. Two major sidewalk gaps that affect station access include the north side of River Oaks Parkway between North First Street and Zanker Road, and along both sides of Montague Expressway between Lick Mill Boulevard and Orchard Drive. The streets directly connected to River Oaks Station (North First Street, River Oaks Parkway, and River Oaks Place) have Class II buffered bicycle lanes. The City of San José identified these corridors to be upgraded to Class IV protected bicycle lanes in the future.



Guadalupe River Trail, which is a Class I multi-use path



Class II bicycle lanes on North First Street



Figure 3: Average Weekday Ridership by Stop

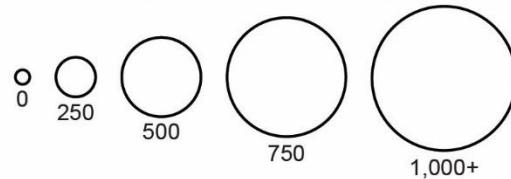


Legend

- Study Area
- River Oaks TOD Site
- Light Rail Station
- Bus Stop

- Transit Routes/Lines**
- Blue Line
 - Green Line
 - Orange Line
 - Route 20
 - Route 59
 - Route 203
 - ACE Brown Route
 - ACE Purple Route

Avg Weekday Ridership (Boardings+Alightings)



Source: VTA, October 2024



Figure 4: Sidewalk Gaps and Existing and Planned Bicycle Facilities



Legend

- Study Area
- River Oaks TOD Site
- Light Rail Station
- Sidewalk Gap

- | EXISTING | PLANNED | |
|----------|---------|---------------------------------|
| | | Class I Multi-Use Path |
| | | Class II Bicycle Lane |
| | | Class IIB Buffered Bicycle Lane |
| | | Class III Bicycle Route |
| | | Class IV Protected Bicycle Lane |

City of San José: 2024 Connect North San José Existing Conditions Report, City of Santa Clara: 2018 Bicycle Master Plan Update, 2020 Pedestrian Master Plan, County of Santa Clara: Active Transportation Plan, October 2024 Draft




Round 1 Outreach Overview


The goal of the first round of public outreach was to understand the community’s challenges with walking, biking, and taking transit around the site. Engagement activities occurred in March and April of 2025 and targeted transit users, nearby residents, and employers. Activities included a walk audit with stakeholders, in-person engagement events, and an online survey, and outreach materials were also provided in Mandarin Chinese. Details of Round 1 outreach, including the full online survey results and outreach collateral used, may be found in **Appendix C**.

Round 1 Outreach Events


Walk Audit



3 Pop-up Events



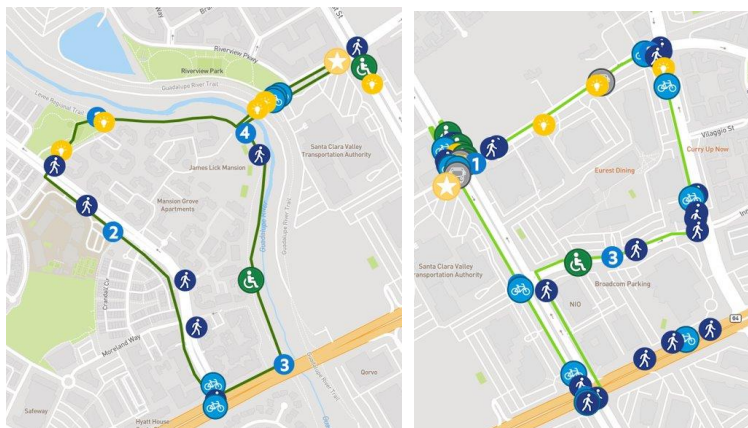
144 Survey Responses



Walk Audit

The walk audit was conducted on April 15, 2025 and was composed of VTA staff. Participants were divided into two groups that started at River Oaks Station. One group proceeded to audit in the City of Santa Clara and the other in the City of San José. Props, such as strollers and bicycles, were provided to invite participants to feel what it is like to use those modes. Feedback was collected through a web application that allows participants to add pins on a map for each observation. Findings include:

- **In City of San José:** narrow and rough sidewalks, long crossing distances with high vehicle speeds that feel unsafe, existing bicycle facilities that feel uncomfortable, and the lack of lighting and wayfinding signage.
- **In City of Santa Clara:** lack of bicycle facilities on Lick Mill Boulevard, the sidewalk gap on Montague Expressway across the Guadalupe River, narrow sidewalks, and the lack of lighting and wayfinding signage.



Walk audit route and feedback icons, left: Santa Clara; right: San José



In-Person Engagement

In-person engagement activities included a community open house and pop-up events. The community open house was conducted on the VTA campus on the evening of February 13, 2025 with the TOD team, which invited the community to learn about the TOD project. The community meeting engaged with 30 members of the public. Pop-up tabling events were designed to meet community members where they are and engage community members that may not typically participate in formal events. The three pop-up events include:

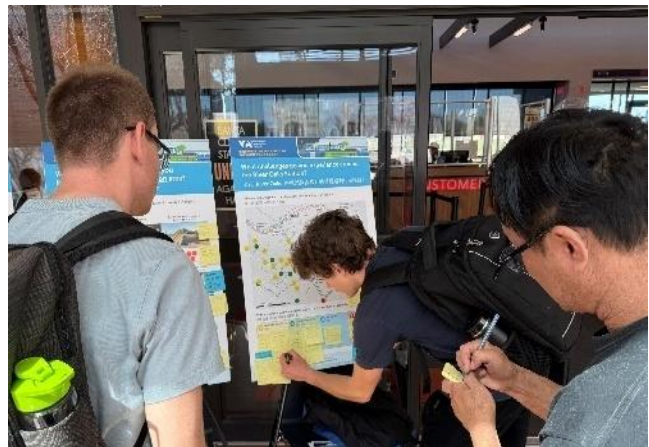
- Northside Branch Library in the morning of Saturday, March 8, 2025, which engaged with 30 people
- Guadalupe River Trail during noon on Thursday, April 3, 2025, estimate of people engaged not identified
- River Oaks Station during lunch and afternoon peaks on Thursday, April 9, 2025, which engaged with 170 people

The engagement boards asked the community to place stickers on a map where they experienced challenges and elaborate on sticky notes. Additionally, the community was asked to pick from several potential improvements that they would be most interested in seeing at and around the Station. The online survey was also advertised through the in-person engagement events.

In general, **most challenges reported by the community were related to crosswalks**. The top improvements requested at the Station were mostly related to additional gathering spaces, such as retail, restaurants, community spaces, and plazas. Meanwhile, the top improvements requested around the station include better connections to the Guadalupe River Trail, pedestrian and bicycle signal improvements, improved bicycle facilities, and additional lighting.



Community open house



Pop-up at Northside Branch Library



Online Survey

The online survey included thirteen multiple choice and open response questions that sought to understand respondents' travel behavior, current station use, and existing challenges to access the station. It was available in English and Mandarin Chinese and was open for responses between February 25 and April 22, 2025. The survey received 144 responses.

Most of the respondents live within the Study Area. 30% of respondents use River Oaks Station or the park-and-ride on a weekly basis, and the most common mode among respondents was walking or using a mobility device.

When asked about the top challenges experienced, many of the respondents pointed to difficulty crossing streets: 45% answered that they have to cross busy, wide streets, while 42% answered that they have to wait too long at intersections (**Figure 5**). Similarly, when asked to rank their top priorities for improvement, 39% of respondents placed improved crossing safety for bicycles and pedestrians in their top three most important (**Figure 6**).

Figure 5: Top Five Challenges Encountered Around River Oaks Station

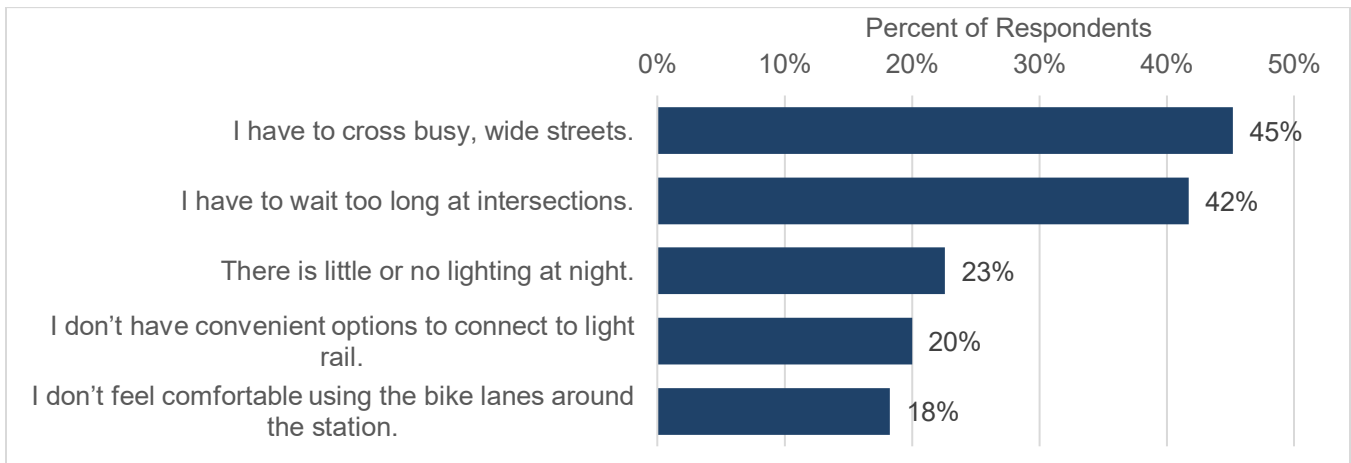
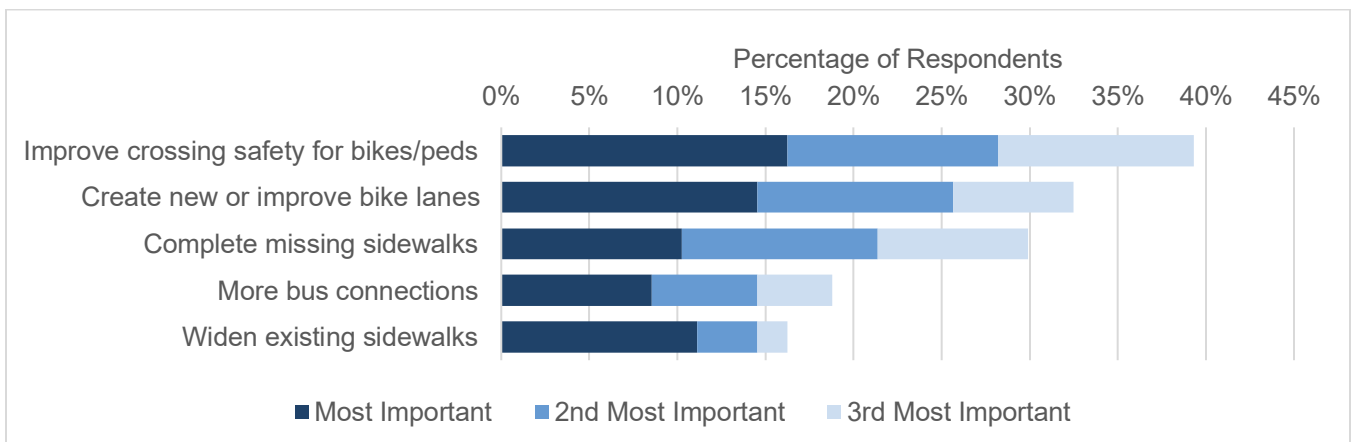


Figure 6: Top Five Priorities for Improvements Around River Oaks Station





Summary of Access Needs and Challenges

This section summarizes the greatest access needs and challenges based on the analyses from the existing conditions review and feedback received from the community. Locations indicated by the community are mapped in **Figure 7**.

Improve Crossing Safety



Crossing distances are long at most major intersections, such as at Zanker Road and River Oaks Parkway

The existing conditions review highlighted that crossing the street does not feel safe due to high vehicle speed, long crossing distances, and poor visibility, especially along North First Street, Montague Expressway, and Zanker Road. The community also expressed frustration with long wait times to cross the street. At River Oaks Station, the community requested midblock crosswalks at the end of the station platform. Many curb ramps were also not ADA-compliant and/or directional (oriented towards the crosswalk to align pedestrians with the direction of travel).

Create New or Improve Existing Bicycle Facilities

While most major corridors around the Station have bicycle facilities, the community has indicated that they do not feel comfortable riding due to high vehicle speeds. Improving existing bicycle facilities to have more separation from vehicles and creating new facilities where they do not exist may attract more people to choose to bicycle.



Some respondents indicated that current bicycle facilities are not comfortable, such as the Class III bicycle route on Lick Mill Boulevard

Complete Missing Sidewalks



A pedestrian walks along the sidewalk gap on the north side of River Oaks Parkway

The sidewalk gap on the north side of River Oaks Parkway between North First Street and Zanker Road directly connects the Station to the schools on Zanker Road. Likewise, the gap along Montague Expressway over the Guadalupe River prevents people from accessing the Guadalupe River Trail. Addressing these two gaps would both benefit station access and strengthen the pedestrian network.



Improve Guadalupe River Trail Access



Some bicyclists noted that the current trail access ramp at River Oaks Place is awkward to navigate

Today, the Guadalupe River Trail is primarily accessed from two locations: a staircase and ramp at the end of River Oaks Place, and from the River Oaks Bridge and Thamien Park. While the community generally praised the Guadalupe River Trail as pleasant to use, some wished for more frequent access points, and that its access ramps are awkward to navigate for bicycles. Improved wayfinding signage to and from the trail can also help aid navigation.

Improve Lighting

The community expressed that existing lighting around the Station area is insufficient and does not feel comfortable. Enhanced lighting, especially pedestrian-scale lighting, could improve the walking and biking experience after dark. Note that the community often mentioned improved lighting on the Guadalupe River Trail; this is currently not feasible due to light pollution impacts on riparian habitats.



Improved lighting was often requested by the community to feel safer after dark

Public Spaces and Amenities



Public common spaces on the River Oaks site was requested

On the River Oaks site, the community expressed strong interest in more public common spaces, including retail, restaurant, community centers, and other amenities. Mobility hub amenities, such as bicycle parking and bikeshare services, were also desired by the community. Site plans should incorporate these amenities, especially at the North First Street and River Oaks Place/Parkway intersection.



Figure 7: Summary of Access Needs and Challenges



Legend

- Study Area
- River Oaks TOD Site
- Light Rail Station

- New or Improved Bicycle Facilities
- Complete Missing Sidewalk
- Improve Crossing Safety
- Improve Guadalupe River Trail Access
- Improve Lighting
- Public Spaces and Amenities

A photograph of a person walking on a sidewalk next to a traffic light pole. The scene is overlaid with a semi-transparent blue filter. The traffic light pole has several lights, including a pedestrian crossing signal showing a red hand icon and a digital display showing the number '18'. The person is wearing a light-colored short-sleeved shirt and dark pants. In the background, there are trees and a building.

ACCESS RECOMMENDATIONS



ACCESS RECOMMENDATIONS

The following section discusses recommendations for access improvements, which were generated from findings of the existing conditions review and the first round of community outreach. At the time of writing, site plans have only been confirmed on the southwest portion of the River Oaks site, while the layout of the rest of the site is to be determined. Therefore, this Study only makes high-level access recommendations for the site itself and makes more specific recommendations outside of the site. The access improvements were also further refined through the second round of community outreach.

Improvements Around River Oaks Station

Along major corridors, the Study identified potential pedestrian and bicycle improvements that could be implemented. On wider, higher-traffic corridors, the recommended bicycle improvements are generally Class I shared-use paths or Class IV protected bicycle lanes along wide, high-traffic corridors. On narrower, lower-traffic corridors, the recommended bicycle improvements are generally Class II bicycle lanes or Class III bicycle boulevards. Pedestrian improvements generally focus on filling sidewalk gaps with a sidewalk or Class I shared-use path. Lighting improvements are recommended along all corridors where they are currently deficient, and wayfinding improvements are recommended along paths for station or trail access.

Wider, Higher-Traffic Corridors



Class I shared-use path

Narrower, Lower-Traffic Corridors



Class II bicycle lane



Class IV bollard-separated bicycle lane



Class III bicycle boulevard



The Study also identified improvements to be made at intersections. Some of the most common improvements are listed below. Note that this list is not comprehensive, and there are improvements specific to an intersection that are not listed below.



Tighten curb radii and remove right-turn slip lanes



High-visibility crosswalks



Directional curb ramps



Enhanced amenities at bus stops



Bicycle lane markings through intersection



Bicycle two-stage left-turn boxes



Improved lighting



Wayfinding signage



Figure 8 maps all access improvements recommended by this Study.

Figure 8: Map of All Recommended Improvements



Legend

River Oaks TOD Site

Light Rail Station

Bus Stop

Bicycle Improvements

Sidewalk Improvements

Bicycle Intersection Treatments

High Visibility Crosswalk with

ADA Curb Ramps

Pedestrian Scale Lighting

Install Traffic Signal

Rectangular Rapid Flashing Beacon (RRFB)

Remove Right-turn Slip Lane

Pedestrian Hybrid Beacon (PHB)

Wayfinding Signage



Round 2 Outreach Overview

The goal of the second round of public outreach was to present the proposed access recommendations to the community and collect their feedback, which will be used to inform the prioritization of the improvements. Engagement activities occurred in August 2025 and targeted transit users, nearby residents, and employers. Activities included pop-up events and an online survey, and outreach materials were also provided in Mandarin Chinese. Details of Round 2 outreach, including the full online survey results and outreach collateral used, may be found in **Appendix D**.

Round 2 Outreach Events

4 Pop-up Events

244 Survey Responses



Pop-Up Events

Similar to the first round of community outreach, pop-up events were designed to meet community members where they are and engage community members that may not typically participate in formal events. The four pop-up events include:

- National Night Out in the evening of Tuesday, August 5, 2025, which engaged with 67 people
- Guadalupe River Trail at noon of Tuesday, August 12, 2025, which engaged with 45 people
- Northside Branch Library in the morning of Saturday, August 16, 2025, which engaged with 11 people
- River Oaks Station during noon and the afternoon peak of Wednesday, August 20, 2025, which engaged with 163 people

The engagement boards presented all the access recommendations on a map, organized by corridor and intersection, and asked the community to indicate which they would support through stickers. Additionally, for the North First Street, River Oaks Place, and Zanker Road corridors, the board presented different implementations of bicycle facilities via cross-section renderings and asked the community which they would prefer.



Pop-Up on the Guadalupe River Trail



Pop-Up at River Oaks Station



Online Survey

The online survey included thirteen multiple choice and open response questions that sought to understand respondents' travel behavior, current station use, and feedback of proposed access recommendations. The online survey was open for responses between August 1 and September 10, 2025. The survey received 244 responses. Most of the respondents live within the Study Area. 48% of respondents use River Oaks Station or the park-and-ride on a weekly basis. Nearly 70% of respondents answered that they would walk, bike, or take transit more if improvements were made.

Summary of Round 2 Outreach Results

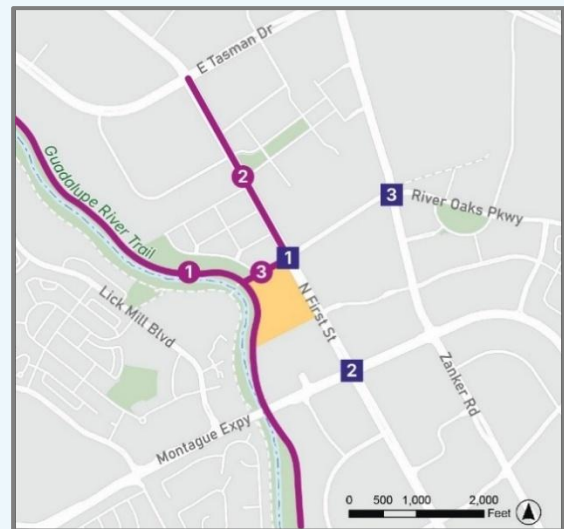
Respondents from both the pop-up events and the online survey supported the Study's recommendations, and little negative feedback was received. In general, the feedback received from both outreach activities was similar. The top locations to prioritize improvements as indicated by the community were:

Intersections

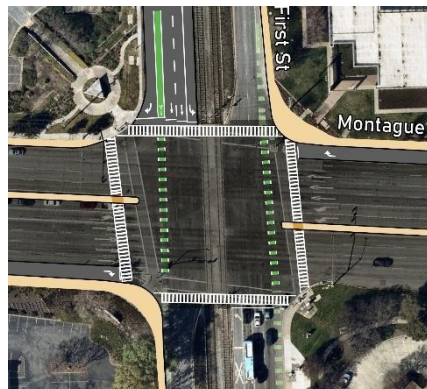
- 1** North First Street and River Oaks Place/Parkway
- 2** North First Street and Montague Expressway
- 3** Zanker Road and River Oaks Parkway

Corridors

- 1** Guadalupe River Trail
- 2** North First Street (north of Station)
- 3** River Oaks Place



Potential improvements at Intersection 1 - North First Street and River Oaks Place/Parkway



Potential Improvements at Intersection 2 - North First Street and Montague Expressway



Potential improvements at Intersection 3 - Zanker Road and River Oaks Parkway



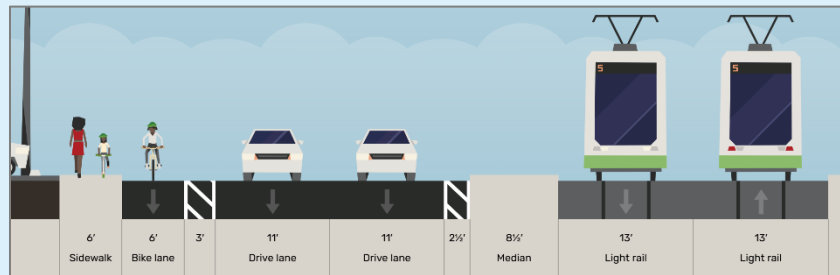
Respondents highlighted the need to improve pedestrian safety at intersections, especially for children. There was strong support for intersection improvements, such as removing right turn slip lanes and adding median refuge islands. Filling sidewalk gaps, such as on the north side of River Oaks Parkway and on Montague Expressway over the Guadalupe River, was also frequently mentioned.

Bicyclists discussed that existing facilities do not feel comfortable due to high vehicle speeds. When asked about which type of bicycle facility they would prefer on key corridors, respondents preferred bollard-separated bicycle lanes on North First Street, and raised bicycle lanes on River Oaks Place and Zanker Road. The existing and community supported cross sections are shown below.

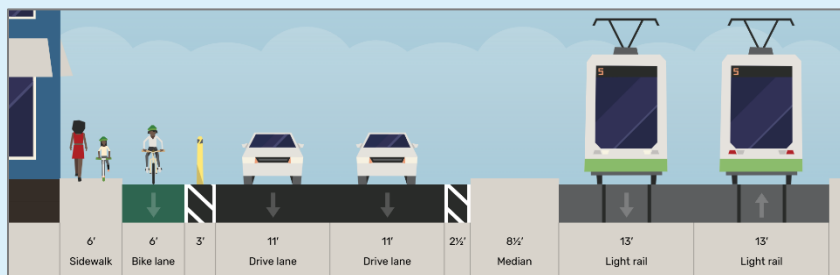


1. North First Street (Facing north at the southbound lanes)

Existing Conditions: Class IIB Buffered Bicycle Lane



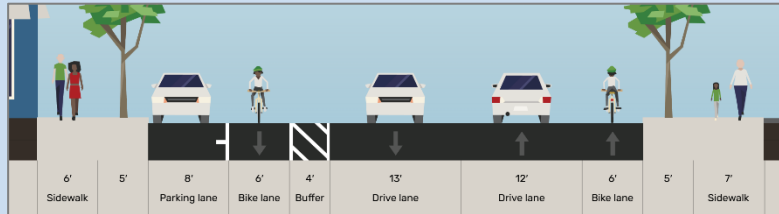
Community Supported: Class IV Protected Bicycle Lane with Bollards



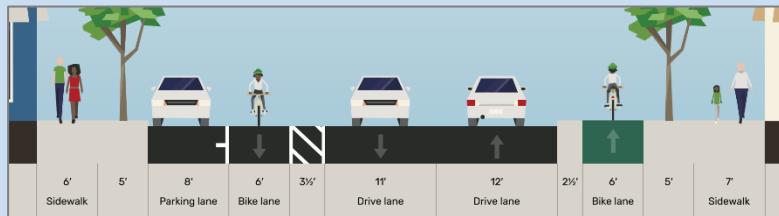


2. River Oaks Place (Facing east)

Existing Conditions: Class II Bike Lane/Class IIB Buffered Bicycle Lane

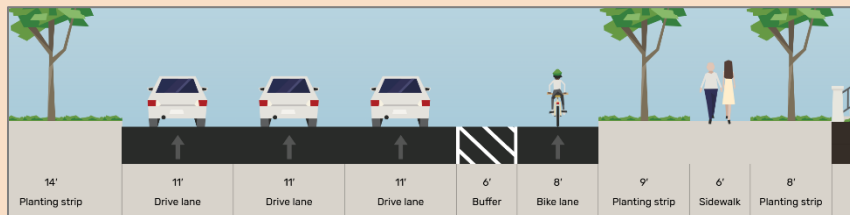


Community Supported: Raised Class IV Protected Bicycle Lane

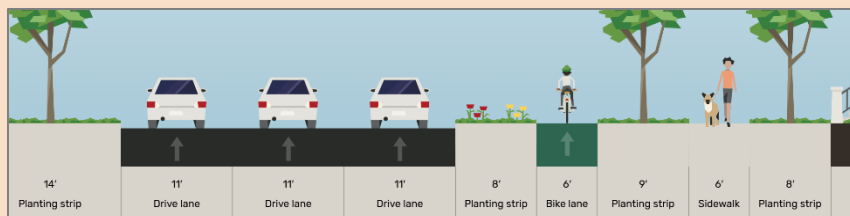


3. Zanker Road (Facing north at the northbound travel lanes)

Existing Conditions: Class IIB Buffered Bicycle Lane



Community Supported: Raised Class IV Protected Bicycle Lanes



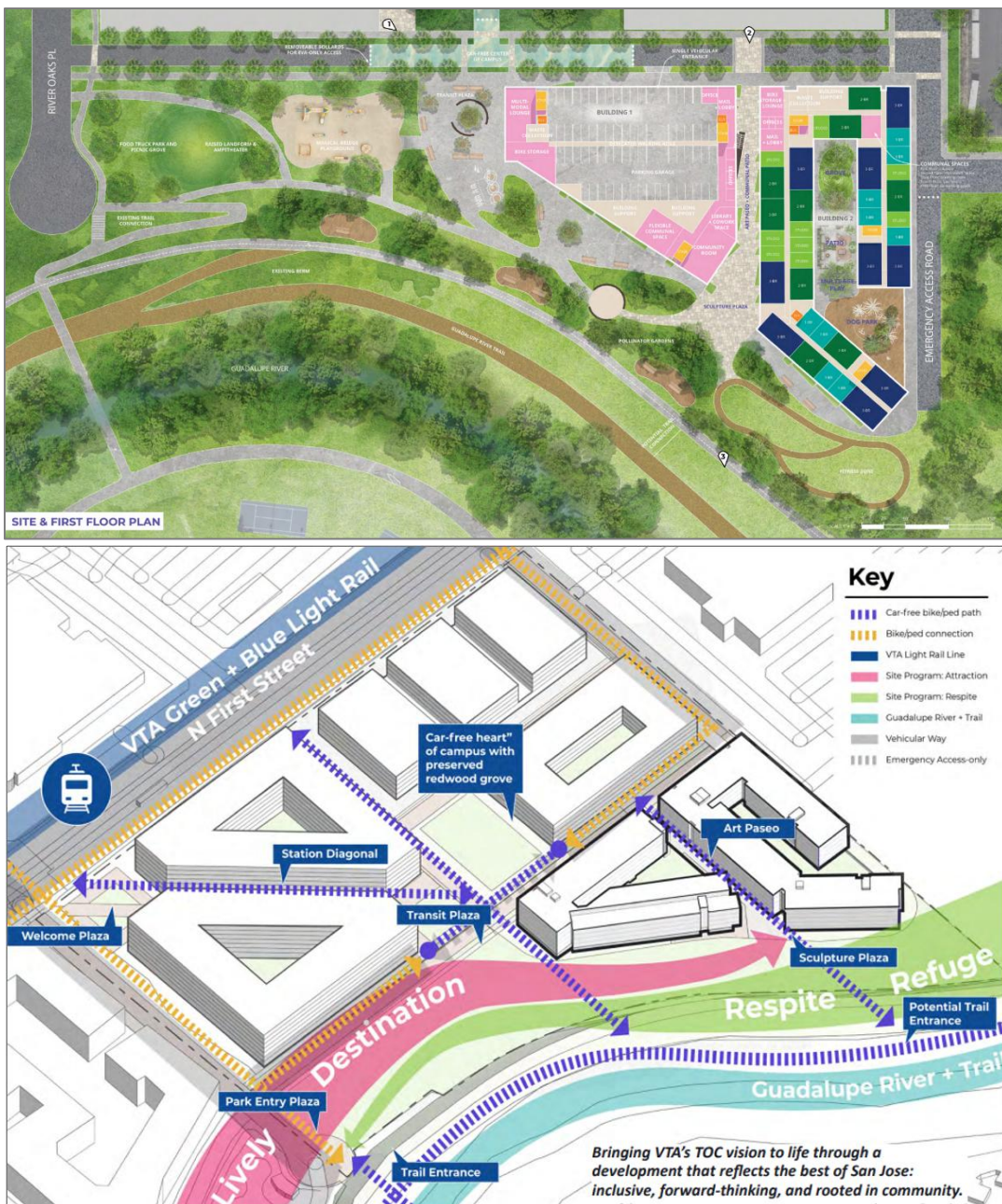
Other improvements the community discussed include lighting and wayfinding, improved trail access points, faster and more frequent transit service, and bicycle-actuated traffic signals. On the River Oaks site itself, the community was interested in additional restaurants, retail, and outdoor gathering spaces. Note that while many respondents requested lighting improvements on the Guadalupe River Trail, this is currently not feasible due to light pollution impacts on riparian habitats.



Mobility Hub and Access Improvements on River Oaks Site

VTA envisions that the full build-out of the TOD site will include 1,095 residential units, 333,150 square feet of office space, and 20,990 square feet of commercial space. At the time of writing, Eden Housing has been selected as the developer for Phase 1 of the project, which covers the southwest section of the site. Eden Housing’s proposal includes 328 residential units in Phase 1, along with a southward extension of Riverview Park to the parcel boundary. **Figure 9** shows Eden Housing’s concepts of Phase 1 of development and the rest of the River Oaks site.

Figure 9: Developer Concepts on River Oaks Site (Source: Eden Housing)



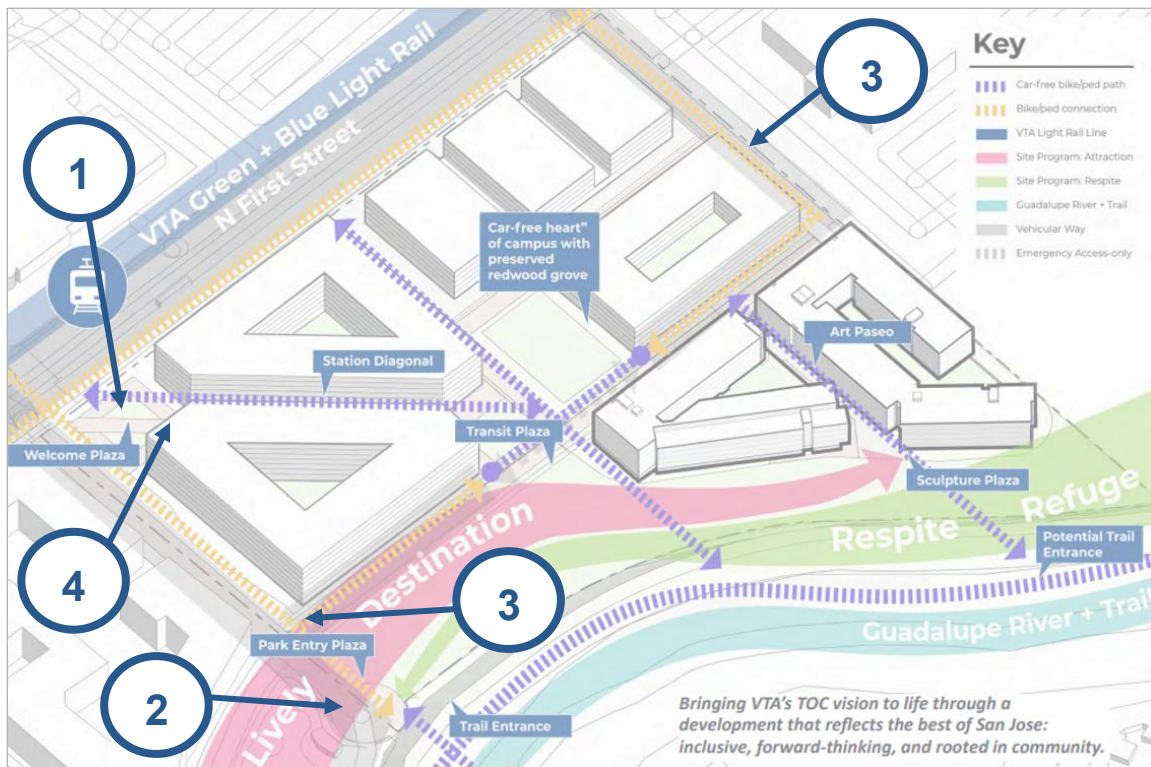


Recommended Mobility Hub and Access Improvements

Phase 1 of development is projected to increase ridership on VTA light rail and buses by 800 rides per weekday. While the site plan is not finalized, several access recommendations can be made on the full site buildout this time, as described below and indicated in **Figure 10**:

1. Mobility hub elements should be included at the intersection of North First Street and River Oaks Place/Parkway, which provides close access to the light rail station and expand access to the station. Elements may include secure bicycle parking, bikeshare docking stations, curb space loading zones for ride-hailing and on-demand transit services, clear wayfinding signage, lighting, and other active transportation access improvements.
2. Direct pedestrian and bicycle pathways with wayfinding signage should be provided to the Station and Guadalupe River Trail access point to make station access convenient
3. Roadways on the site should be low-speed, complete with traffic calming strategies to ensure pedestrian and bicycle safety. Consider bulb-outs and raised crosswalks at intersections to promote vehicles' awareness of crossing pedestrians.
4. Restaurants, retail, community spaces, and outdoor plazas should be included on the site. Feedback from community outreach supports these land uses.

Figure 10: Recommended Mobility Hub and Access Improvements





Transportation Demand Management (TDM)

Transportation demand management (TDM) strategies should be employed on the site to encourage travelers to choose sustainable modes of transportation. Both VTA and the City of San José have TDM guidelines that apply to the site's planned residential and office land uses. Potential strategies relevant to the River Oaks site include:

- Provide affordable housing
- Right-size vehicle parking supply
- Unbundle parking costs
- Provide shared parking and rideshare programs
- Financial incentives, such as transit subsidies, parking cash-out, vanpool incentives, and alternative transportation benefits
- Subsidize VTA transit service upgrade/expansion
- Provide flexible work schedules
- Price workplace parking
- Education, marketing, and outreach
- Design, fund, and/or construct bike, transit, pedestrian, and residential street improvements beyond the Project's frontage
- Provide bicycle parking
- Provide bike share and car share stations

Additionally, VTA may require the developer to incorporate access recommendations that are on the edge of the River Oaks site along North First Street, River Oaks Place, and the Guadalupe River Trail. This allows VTA to pursue access improvements elsewhere.



Prioritization and Implementation Plan

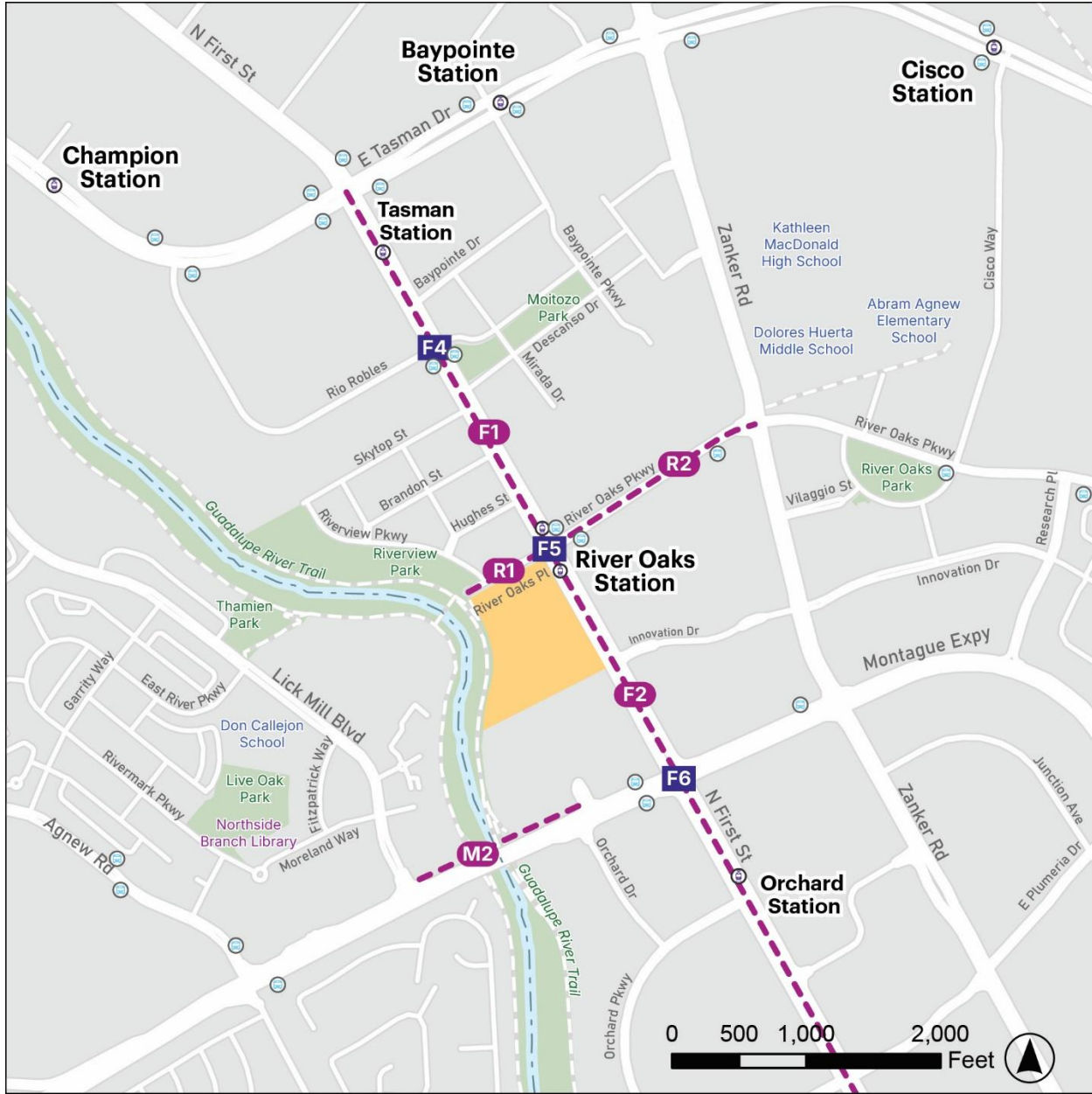
This section outlines the methodology used to evaluate and rank potential access improvements through a prioritization framework. The framework includes seven criteria to identify the projects that best align with stakeholder values, are most effective at improving station access and can be delivered in a cost-effective manner. Each of the improvements in Figure 8 were grouped by location, and its performance for each criteria is assigned a score of 1 to 3, with the highest priority being the highest score. The evaluation framework includes the following criteria:

- **Community Feedback:** Whether feedback received from the community on improvement through engagement activities and surveys support improvement
- **Constructability:** Level of difficulty to construct improvement related to the magnitude of improvements, associated improvements needed (i.e., roadway re-grading, new or relocating signals)
- **Safety Enhancement:** How improvement addresses existing collision history and documented safety concerns
- **Connection to Transit:** How improvement connects users to existing transit facilities
- **Accessibility Improvements:** If the improvement provides new ADA facilities or closes an access gap
- **Alignment with other Plans:** If improvement is identified in another plan
- **Opportunities for Funding:** If improvement would be competitive for grant funding, such as the Affordable Housing and Sustainable Communities (AHSC) Program and potential MTC grants offered in the future

The highest priority access improvements are mapped in **Figure 11** and described in detail in **Table 1**. All other improvements and their prioritization evaluation results are listed in **Appendix E**.



Figure 11: Map of Highest Priority Access Improvements



Legend

- River Oaks TOD Site
- Light Rail Station
- Bus Stop
- Corridor Improvements
- Intersection Improvements



Table 1: Highest Priority Access Improvements, Ranked by Score

ID	Location	Improvements	Evaluation Score
R2	River Oaks Parkway (North First Street to Zanker Road)	<ul style="list-style-type: none"> • Provide sidewalk on the north side of the street • Provide amenities at the bus stop • Narrow east bound approach to minimum width • Evaluate feasibility for in-lane bus stop closer to the intersection with transit island and pedestrian scale lighting • Wayfinding to Station and Trail entrance 	19
F5	North First Street and River Oaks PI/Pkwy	<ul style="list-style-type: none"> • High-visibility crosswalks on all legs • Clear wayfinding to Light Rail service provided at each platform, as well as to Trail and other amenities • Pedestrian scale lighting • Bicycle lane markings through the intersection, bicycle boxes, and two-stage left-turn boxes where space allows • Consider a bicycle push-button for eastbound cyclists • Provide amenities at bus stops • Tighten turn radii for the southwest corner • Provide ADA directional curb ramps at northeast, southeast, and southwest corners and at Light Rail platform entrances 	18
M2	Montague Expressway (Over Guadalupe River)	<ul style="list-style-type: none"> • Provide pedestrian and bicycle bridge over Guadalupe River on north side of Montague Expressway and connect to proposed Class I Shared Use Path • Provide additional wayfinding at Trail entrances 	17
F1	North First Street (E Tasman Dr to River Oaks PI/Pkwy)	<ul style="list-style-type: none"> • Provide Class IV Separated Bike Lanes with bollards • Wayfinding to Station and Trail entrance • Improved pedestrian scale lighting throughout • Improve eastern sidewalk 	17
F2	North First Street (South of River Oaks PI/Pkwy)	<ul style="list-style-type: none"> • Provide Class IV Separated Bike Lanes with bollards • Wayfinding to Station and Trail entrance • Improved pedestrian scale lighting throughout 	17
F4	North First Street and Rio Robles	<ul style="list-style-type: none"> • Bicycle lane markings through the intersection and two-stage left-turn boxes where space allows • High-visibility crosswalks on all legs • Wayfinding to Station • Provide amenities at bus stops • Tighten turn radii and provide directional curb ramps at the northwest and southwest corners 	17
F6	North First Street and Montague Expressway	<ul style="list-style-type: none"> • Bicycle lane markings through the intersection and two-stage left-turn boxes where space allows • Recommend protected intersections and ADA curb ramp upgrades on all (4) corners • Remove right-turn slip lanes at the northeast and southwest corners • Consider dedicated right turn lane for southbound vehicles to avoid vehicles queuing in bicycle lane • Provide sidewalk connection along southwest segment • High-visibility crosswalks on all legs 	17
R1	River Oaks Place (Guadalupe River Trail and North First Street)	<ul style="list-style-type: none"> • Provide Class IV raised bike lanes on the south side • Wayfinding to Station and Trail entrance • Improved pedestrian scale lighting throughout 	17



Cost Estimates

High-level capital cost estimates were prepared for each improvement at a corridor and intersection level to understand the funds needed to implement these improvements in the future.

Capital Cost Methodology

The cost estimates were developed based on a high-level assessment of the improvements needed and considerations for implementation. These estimates are based on planning-level assumptions, and no conceptual or detailed designs were prepared to support the development of these estimates; more accurate cost estimates should be developed based on concept designs at a later stage. Capital cost estimates were developed using current year unit cost based on recent projects in the Bay Area and thus represent current year dollars. Costs include both construction costs and soft costs, such as design, environmental permitting, and administration. **Appendix F** includes further detail on the cost estimates on each improvement and a table of estimated unit costs per improvement to be used to help estimate individual improvements when resources are limited.

Capital Cost Estimates

The total cost for the identified improvements would be nearly \$38 million, as shown in **Table 2**. The cost estimate of the highest priority improvements are included in **Table 3**, and the estimates of all improvements are included in Appendix F.

Table 2: Total Corridor Cost Estimate

Corridor	Total Cost Estimate ¹
North First Street	\$7,100,000
River Oaks Place/Parkway	\$3,100,000
Zanker Road	\$6,740,000
Montague Expressway	\$12,510,000
Lick Mill Boulevard	\$3,520,000
Other Locations	\$5,270,000
Total Cost	\$38,240,000

Table 3: Cost Estimates of Highest Priority Improvements

ID	Location	Cost Estimate ¹
R2	River Oaks Parkway (North First Street to Zanker Road)	\$1,820,000
F5	North First Street and River Oaks Pl/Pkwy	\$300,000
M2	Montague Expressway (Over Guadalupe River)	\$4,030,000
F1	North First Street (E Tasman Dr to River Oaks Pl/Pkwy)	\$3,530,000
F2	North First Street (South of River Oaks Pl/Pkwy)	\$1,790,000
F4	North First Street and Rio Robles	\$480,000
F6	North First Street and Montague Expressway	\$660,000
R1	River Oaks Place (Guadalupe River Trail and North First Street)	\$590,000

¹ In current year dollars



Next Steps

The ability to implement these improvements will be dependent on available funding. Opportunities to fund these projects include the following:

- **Partnerships with Jurisdictions:** As the study area and improvements identified span across the City of San José, City of Santa Clara, and County of Santa Clara, partnering with each jurisdiction will be critical in advancing the recommended improvements forward.
- **Affordable Housing and Sustainable Communities Program Funding:** VTA is eligible to pursue grant funding through the California Department of Housing and Community Development’s Affordable Housing and Sustainable Communities (AHSC) program. Improvements identified within one mile of the River Oaks TOD site can be eligible for grant funding if they involve new/improved bikeways, new/improved pedestrian walkways/crosswalks, traffic calming measures, bus shelters, bus bulb-outs, or transit boarding islands.
- **TOD Development:** The future development at the River Oaks TOD site will be required to provide TDM strategies and multi-modal access options for future users of the site. Through agreements with the developers, some of the identified improvements within the site and on the adjacent roadways can be incorporated into the TOD sites design.

Future studies can be conducted to further understand the feasibility of specific recommendations, including:

- Feasibility of protected intersections throughout the study area
- Feasibility of removing one southbound left-turn lane at the intersection of North First Street and Montague Expressway
- Feasibility of providing two RRFB crossings at the outer ends of the River Oaks Light Rail Station platforms

Partnerships with other agencies and further study and evaluation of the proposed recommendations will allow for the improvements that the community identified and supported to be implemented sooner.