



STOCKTON BOULEVARD CORRIDOR STUDY

Existing Conditions Appendices

November 2019



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APPENDIX A – STAKEHOLDER INTERVIEWS

The project team worked with city staff to identify key stakeholders—including agency representatives, business owners, community leaders, and residents—to speak to how Stockton Boulevard functions today and identify opportunities for change. The following section summarizes these interviews into themes organized by agency and topic area.

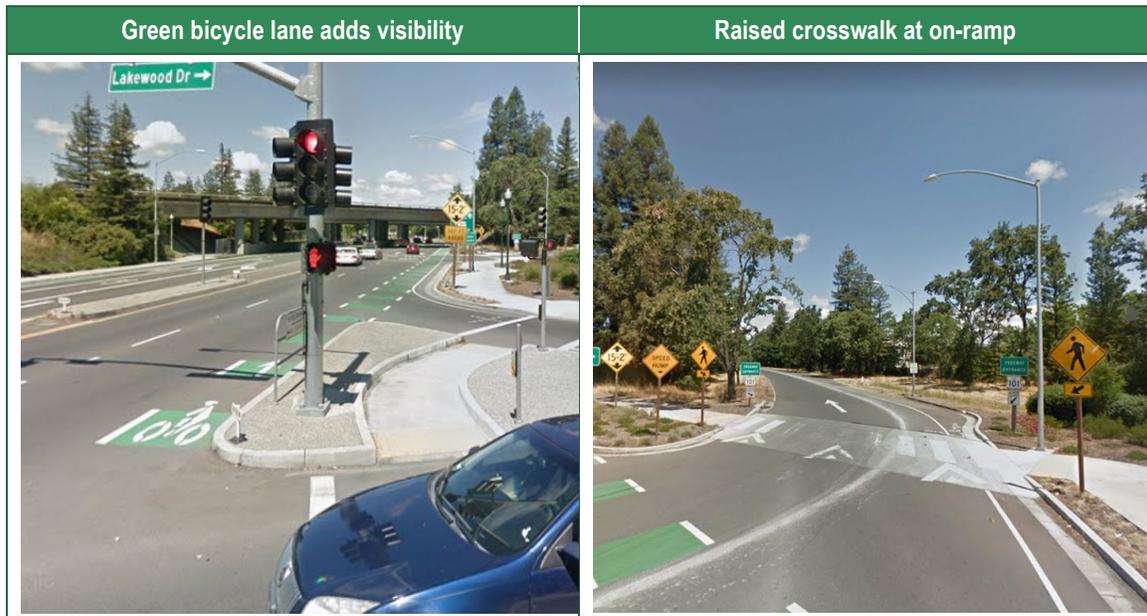
CALTRANS

Director's Office Sustainability Program Manager and District 3 staff were interviewed related to the Highway 50 on and off-ramps, which are Caltrans facilities.

Safety

- On- and off-ramps at Highway 50 have large turning radii causing high drive speeds. Design solution could square up ramps, reduce turning radius, and make the crossings shorter. An example of on-ramps better designed for walking and bicycling can be seen at the US 101 ramp in Windsor (Figure 1).

Figure 1 US 101 NB On-Ramp in Windsor, CA



- Environment under the Highway 50 underpass is unpleasant; needs beautification and lighting; wider sidewalks.
- The light rail crossing is another area of safety concern.
- Bicycle lanes at Highway 50 need additional protection.
- Issues with trucks turning on Stockton/T versus 35th Street may be resolved with better signage.

- There is a Caltrans maintenance facility at Stockton and 34th; the on-street parking is needed for the facility.

Design Standards

- State evaluation criteria will soon be using VMT instead of LOS.
- Bicycle and pedestrian accommodations across on- and off-ramps are designed using the California Highway Design Manual (HDM). The HDM says that local guidance can be used in cases where a desired treatment is not in HDM, but AASHTO would still be preferred over NACTO.
- Caltrans has a guide applicable to highways that serve as main streets, but it is fairly high level.
- Interchange influence area generally extends 50' from highway ramps – this is the area Caltrans will need to weigh in on.
- Caltrans can conduct traffic forecasting if changes to traffic capacity are pursued. Traffic capacity changes to Stockton Boulevard would be unlikely to affect Highway 99.

Implementation Steps

- Changes to interchange influence area need to support Vision Zero and safety – if you can find a safety issue it will elevate the project. The best way to get it implemented is for the community to push for it.
- Funding for future improvements may be eligible through Active Transportation Program. Funding is available through shop program, but it would need to be paired with already planned changes to Highway 50 based on scheduled maintenance work.
- Start with District 3 staff and include them on initial alternatives. They will set up internal review with forecasting, hydraulics, maintenance, right-of-way, and traffic operations.

SACRAMENTO CITY UNIFIED SCHOOL DISTRICT

Interviewees included the Board of Trustees for Area 4¹ and the principals of Will C. Wood Middle School (located on Lemon Hill Avenue east of Stockton Boulevard) and Peter Burnett Elementary (located east of Stockton Boulevard between Jansen Drive and McMahon Drive).

Travel Patterns

- Most students in the school district get to school by walking, biking, or parent drop-offs
- Affluent students can go to their school of choice, but non-affluent students tend to go to schools that they can walk to. Area 4 is a lower-income district so most students end up going to their neighborhood school.
- Several schools have hosted Walk and Bike to School Days with big turnouts, most notably Will C. Wood and Peter Burnett Elementary Schools.

¹ Area 4 includes 14 schools and runs along Stockton Boulevard from 14th Ave to just south of Fowler Ave. <https://www.scusd.edu/sites/main/files/file-attachments/sac-city-schools-wtrustees-36x48.pdf>

- At Will C. Wood (enrollment 750), 90% of students walk or bike to school; a small percent take SacRT; for the rest, parents drop them off. Half of students live on the west side of Stockton Boulevard and must cross the street.
- At Peter Burnett (enrollment 540) about 50% walk and the others get dropped off. One bus serves the school bringing kids from a local homeless shelter. Of those who walk, 70% are 4th-6th grades. A few parents walk to school to pick up their kids. Few kids live west of Stockton Boulevard; those that do likely cross at McMahon.
- After school, a lot of Will C. Wood students hang out around Peter Burnett. The Taco Bell on Stockton Boulevard is another popular hangout spot, as well as Guerrero Park.

Policy/Programs

- Sacramento schools do not provide yellow bus transportation except for special education
- The School Board's role is to look at everything that happens to students from when they leave the house to when they get home. Transportation is lower on the priority list because so much of it is outside the Board's control; however, they are happy to write support letters (e.g. SacRT recently passed a policy for free student passes).

Safety

- Neighborhood schools are set back from Stockton Boulevard so there are no crossing guards on Stockton Boulevard itself. Parents at Peter Burnett ask for more crossing guards, as the school site is large and has many access points, but there aren't enough resources. Staff and principals are already acting as de facto crossing guards. As a practice, crossing guards are not provided at middle school, so there are no guards at Will C. Wood.
- Stockton Boulevard itself is not a great place to have young people hanging around
- Morrison Creek revitalization project is seeking to clean up this eyesore and create walking paths. Will C. Wood students walking from the south cross Morrison Creek at a footbridge at 63rd Street; there was a group of homeless people who were trying to charge the kids a toll to cross the bridge.
- Accessing Will C. Wood, the biggest concerns are speeding on Lemon Hill Avenue and backups during drop-off/pick-up times for parents trying to exit the school parking lot.
- Accessing Pete Burnett, the biggest challenge is the sheer number of cars trying to use the residential street in front of the school for drop-off and pick-up; the school has just a few parking spaces.
- Personal safety is a barrier at Peter Burnett to more kids walking and bicycling; had a case where a student was approached by a stranger.
- Signs alerting drivers to the presence of pedestrians/bicyclists are needed.

Bicycle and Pedestrian Environment

- Sidewalks along Stockton Boulevard are interrupted by frequent and wide driveways.
- There are long stretches between signals and crossings are wide in some areas.
- Benefits of getting more students to walk and bike include:
 - Attendance rates. For students who rely on parents to drive them, if a parent has to go to work early or is sick, the kids cannot get to school.

- Health. Walking and biking increase the health of students.
- Reduced congestion. Fewer parents driving to school would alleviate the chaos of school drop-off times. This is especially true at Peter Burnett, where there is very little drop-off parking.

Future Communications

- At Will C. Wood, principal sends home a newsletter each month that can be used to publicize alternatives survey.
- At Peter Burnett, parents less likely to have a computer; principal reaches parents through in-person events and phone.

STATE GOVERNMENT

Interviews were held with representatives from the State Assembly and Senate

Corridor Challenges

- High transit ridership today, but there could be even more. Route 51 should continue south to Kaiser and college. Transit only works if frequencies are high enough that you don't need a schedule.
- San Juan lot needs to have high density housing to facilitate high capacity transit
- How to build up economic activity without gentrification?
- Homelessness
- Street is very wide; not biking or walking friendly
- Does not feel like a destination; land uses do not create a neighborhood feel
- Intersection geometry is awkward; street is busy

Corridor Opportunities/Strengths

- Great diversity in business owners and business types
- Colonial heights library - great community partner
- Stockton could be more like Broadway with diverse businesses, restaurants, activity
- Need safe bikeways
- Make affordable places more livable
- Meet climate goals by creating places with strong transportation options and affordable housing

Additional Outreach

- Recommend mtgs with Doris Matsui, Vinh Phat Market, Greater Sacramento Area Vietnamese chamber of commerce, Sacramento Chinese of IndoChina Friendship Association

BUSINESS OWNERS

Existing Access

- At the Vinh Phat Market, most employees drive or walk to work. Customers walk from the surrounding neighborhoods or drive. Customers bring bikes into the store because there are no bike racks.
- Many Vinh Phat Market customers are first generation immigrants. They mostly walk (if they live close enough) or they drive/are driven. Very few take the bus. The new concept to learn the system and how to pay is a perceived barrier.
- More bus service would bring more homeless; more bike lanes are not needed as it's still a car culture

Challenges

- Traffic is viewed as a barrier; congestion occurs on Lemon Hill Ave/Stockton in front of Vinh Phat Market
- Middle school students from Will C Wood often come to Vinh Phat Market. Owner has had to restrict backpacks in store to address shoplifting
- The Suburban segment is a ghost town after sunset aside from drugs, prostitution, and gangs

Opportunities

- Beautification including street lighting
- Make street more comfortable for those walking

SACRAMENTO POLICE DEPARTMENT MOTOR UNIT

Interview conducted with a member of the police motor unit.

Sacramento Police Department (PD) employs four officers to manage traffic violations. These officers travel via motorcycle and focus upon the three E's – Education, Enforcement, and Engineering – and both patrol locations to deliver enforcement and education as well as respond to complaints. Their goal is to prevent death and injury in line with the City's Vision Zero goals.

Stockton Boulevard is in sector 6 and the sectors are patrolled on a schedule; in theory the motor unit is on Stockton every other week.

Top Safety Issues

- Across the board, seeing more distracted driving.
- In the Urban Campus segment, speed isn't much of an issue, rather it's congestion and mixed uses. When there are many different participants with different goals and motivations, that means everyone wants different things. For example, the officer might meet with stakeholders and everyone agrees that safety is important with an asterisk – so long as safety for one user doesn't affect someone else's trip.

- In the Traditional Grid area, there is a huge speed issue. Motorists traveling northbound travel too fast – 50-55 mph – and there is a hill approaching 14th Street and sight distance goes from 1,000 ft to 100 ft. There is a HAWK signal at Yosemite and drivers are just going too fast in this area. The motor unit will pull people over if they are going 15 mph over the posted speed limit; however, context matters – if the person is driving recklessly, or is going 12 mph over the posted limit in front of a school, the officer has the discretion to make a stop.
- In the Suburban segment, there is a lot of traffic and cross traffic.
- Officer has witnessed red light running but no more so than at other locations; if people see someone run a red light it often gets burned into their memory as “everyone runs this red light.”
- In terms of near misses, the number one would be pedestrians not obeying control light and walking when they think the road is clear, or people turning right on green or red and not expecting to see pedestrians in the crosswalk.
- Places to focus engineering efforts are at the major intersections like Broadway, Fruitridge, 14th Avenue, and to slow speeds at the grade at 14th Avenue. Focus engineering anywhere that there is heavy mixed use between many types of users.
- City is investing in adding more traffic enforcement officers. The group at one point was 70 people and now it is just four people. Currently hiring.

COMMUNITIES OF COLOR

Stockton Boulevard is home to many ethnicities including people of Hispanic origin, Vietnamese, Hmong, and Chinese people. The Asian Resources Community Center facilitated individual and small group discussions with populations it serves, who are often left out of traditional planning processes. These conversations took place in July and August of 2019, with a total of 21 participants. Translation and interpretation were provided in Spanish, Vietnamese, and two dialects of Chinese, though the primary language of most participants was Vietnamese.

Findings

Participants completed the Stockton Boulevard Community Survey, which had been available online for one month prior to this in-person opportunity to complete the survey with translation/interpretation support. Survey results among this group are presented in Figure 2.

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Figure 2 Survey Summary from Asian Resources Center

Question	Summary of Responses	Notable Differences from Broader Community Survey Sample
What IDEAS do you have for improving the corridor?	<ul style="list-style-type: none"> ▪ Wider pedestrian crossings ▪ More lighting to increase safety for road users, and discourage criminal activity 	
What CHALLENGES do you experience while travelling along or across Stockton Boulevard?	<ul style="list-style-type: none"> ▪ People walking and bicycling are perceived as acting irresponsibly – jaywalking and riding recklessly ▪ Traffic signals are not bright enough ▪ Too many drivers exceeding the speed limit ▪ Pavement maintenance and street surface are poor ▪ Traffic congestion can be difficult 	
How often do you visit or spend time on Stockton Boulevard?	<ul style="list-style-type: none"> ▪ 14 respondents visit the area 5 or more days per week ▪ Everyone comes to the Stockton Boulevard area at least once per month 	<ul style="list-style-type: none"> ▪ Participants visit the study area much more often
Do you typically travel THROUGH Stockton Boulevard or TO places on Stockton Boulevard?	<ul style="list-style-type: none"> ▪ 10 participants stop at 1 or more places, while 8 generally pass through without stopping 	
What are the places you visit most often on Stockton Blvd?	<ul style="list-style-type: none"> ▪ Viñh phát Market (Stockton and Lemon Hill Ave) is the most popular destination, followed by SF Market (Stockton and 65th Street, south of the study corridor) and ARI Community Services (El Paraiso Ave, west of Stockton) 	<ul style="list-style-type: none"> ▪ Top destinations for these participants are skewed to the south end of the study corridor, while the broader sample destinations were concentrated in the central and northern end of the corridor.
For what purposes do you travel along, or to, Stockton Blvd?	<p>Top responses ranked by number of responses:</p> <ul style="list-style-type: none"> ▪ Shopping and restaurants ▪ College/school (all identified ARI Community Services) ▪ Work/work-related ▪ Medical appointment 	<ul style="list-style-type: none"> ▪ Participants are traveling for school/college much more commonly than the broader survey sample
What times of the day are you usually on Stockton Boulevard?	<ul style="list-style-type: none"> ▪ The majority participants visit Stockton Boulevard at different times depending on their trip purpose 	
How do you typically travel to your destination? How long does it take you?	<ul style="list-style-type: none"> ▪ 15 participants drive to their destinations, with drive times ranging from 5 to 30 minutes ▪ 4 get dropped off by friends or family ▪ No one takes transit, and 2 people bike or walk 	<ul style="list-style-type: none"> ▪ A much lower proportion of these participants walk, bike, or take transit
Once you're on Stockton Boulevard, do you travel to other destinations on	<ul style="list-style-type: none"> ▪ The majority of participants drive between destinations in the study area. Six others get rides from friends or family. 	

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Question	Summary of Responses	Notable Differences from Broader Community Survey Sample
Stockton (i.e. for lunch or errands)? If so, how do you get around?		
In terms of transportation, what are the TOP FIVE things that would make Stockton Boulevard more attractive to you?	<p>Top choices in improvements for:</p> <ul style="list-style-type: none"> ▪ Walking: <ul style="list-style-type: none"> – More pedestrian crossings – Wider sidewalks – Better lighting ▪ Bicycling: <ul style="list-style-type: none"> – Lower stress bikeways on Stockton Boulevard – Better lighting ▪ Transit: <ul style="list-style-type: none"> – Upgraded stop amenities – Enhanced access to transit stops ▪ Driving/parking: <ul style="list-style-type: none"> – Easier access to parking – More or improved traffic signals – Better lighting ▪ Placemaking <ul style="list-style-type: none"> – Trees and landscaping – Better signage and wayfinding – Places to sit 	
Demographics of participants	<p>Age</p> <ul style="list-style-type: none"> ▪ Most participants are between ages 35 and 54 <p>Gender</p> <ul style="list-style-type: none"> ▪ Participants were split 50/50 male/female <p>Race/Ethnicity</p> <ul style="list-style-type: none"> ▪ Most participants selected Vietnamese, while 2 indicated Hispanic or Latinx and 2 indicated Chinese <p>Language spoken at home</p> <ul style="list-style-type: none"> ▪ 16 speak Vietnamese, 4 English, and 1 Mandarin/Cantonese/Other Chinese dialect <p>Household income</p> <ul style="list-style-type: none"> ▪ Many participants did not respond. Those who all indicated household incomes below \$50,000. <p>Home ZIP code</p>	<ul style="list-style-type: none"> ▪ The online survey did not include the question about household income, however this participant group skews far lower than the area median income. ▪ Home locations among this participant group are concentrated in the southern end of the study area, while the broader survey sample is concentrated in the central and northern areas.

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Question	Summary of Responses	Notable Differences from Broader Community Survey Sample
	<ul style="list-style-type: none">▪ Most participants live at the southern end of the corridor, in ZIP codes 95823, 95824, and 95828	

APPENDIX B – COMMUNITY EVENTS

COMMUNITY PRESENTATIONS AND POP-UPS

In June 2019, five pop-up tabling events were held at community locations and local events to engage those who use the corridor today for both local and regional travel (Figure 3). Project staff showed corridor maps and asked community members to describe how they currently use the corridor and to identify safety and access challenges.

Figure 3 Community Pop-Ups

Location / Organization	Date/Time	Rationale for Location / Organization
Oak Park Farmer's Market, McClatchy Park	Saturday, June 29, 2019 9:00 a.m. – 1:00 p.m.	Highly attended by local residents and well organized by known community leader
Jr. Giants Opening Day, George Sim Community College	Saturday, June 29, 2019 9:00 a.m. – 1:00 p.m.	Reached families who likely use Stockton Boulevard frequently
Friends of Colonial Heights Library, 4799 Stockton Boulevard	Saturday, June 29, 2019 1:00 p.m. – 3:00 p.m.	Centrally located and highly used library in the center of project area
Broadway and Stockton Boulevard, near Food Source	Saturday, June 29, 2019 3:00 p.m. – 6:00 p.m. Sunday, June 30, 2019 9:00 a.m. – 11:00 a.m.	High ridership transit location adjacent to retail node
South Sacramento Church, 7710 Stockton Boulevard	Sunday, June 30, 2019 8:00 a.m. – 10:00 a.m.	Just south of the study area, this church hosts many community events and is a known community gathering spot

Throughout June and July, the team also presented at several neighborhood groups (Figure 4) regularly scheduled events to gather input on the project.

Figure 4 Community Presentations

Location / Organization	Date/Time	Rationale for Location / Organization
Stockton Boulevard Partnership	Thursday, June 13, 2019 9:00 a.m. – 10:30 a.m.	The partnership represents businesses along Stockton Boulevard
Fruitridge Mano Neighborhood Association	Wednesday, June 26, 2019 6:30 a.m. – 8:00 p.m.	The neighborhood association runs from 21 st Ave to Lemon Hill Avenue, and is bound by Stockton Boulevard to the west
Colonial Heights Neighborhood Association	Wednesday, June 26, 2019 6:30 a.m. – 8:00 p.m.	The neighborhood association covers from 14 th Ave to 21 st Ave and

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Location / Organization	Date/Time	Rationale for Location / Organization
		is bond by Stockton Boulevard to the west
Veterans of Foreign Wars Post 67	Thursday, July 25, 2019 7:00 p.m. – 8:00 p.m.	The VFW is located on Stockton Boulevard

The following section presents a summary of issues and opportunities, organized by how participants travel to and along the corridor. Specific recommendations and considerations are presented as bullet points.

Figure 5 Pop-Up Events



Walking

Many people cited the need for wider sidewalks and a buffer between the sidewalk and the travel lanes; however, by far the biggest concern for those walking involves crossing the street. Many people are observed crossing 4-5 lanes of traffic in the middle of the block with no marked crossings. More crossings and safer crossings were desired. Right turning drivers failing to yield to pedestrians was heard many times by project staff. Participants identified T Street, Broadway, 14th Avenue, and 21st Avenue as intersections along Stockton Boulevard where people feel unsafe crossing. One participant commented that “When the walk sign is on, drivers turning do not yield to pedestrians.” The presence of homeless people was also cited as a deterrent to walking, and

poor sidewalk conditions can make travel difficult for seniors and people using canes, walkers, and wheelchairs. One participant shared that their daughter was killed by a speeding driver on Stockton Boulevard, and said the community needs help making the corridor safe for everyone.

Ideas for improving pedestrian conditions along the corridor include the following:

- Add a buffer between the sidewalk and street
- Add more crossings
- Create a pedestrian-focused zone from 14th to Broadway
- Widen the sidewalks
- Add more lighting
- Reduce presence of homeless people to increase feelings of personal security
- Educate and enforce jaywalking violations. Install a barrier to prevent midblock crossings.

Bicycling

The top issues cited by those who bike today or who wish to bike was that the existing bike lane is too narrow and that a facility is needed north of Broadway connecting to UC Davis and into downtown. Participants identified T Street, 14th Avenue, and McMahon as intersections that are difficult for cyclists to navigate.

Ideas for improving bicycling conditions along the corridor include:

- Widen the bike lane on Stockton Boulevard
- Safer facilities with protection and physical separation for bikes
- Increase the visibility of bike facilities with signage and paint
- Identify parallel routes for kids and other people in the community
- Better lighting for nighttime visibility
- Green lanes similar to those at the Capitol
- Make push buttons to cross the street easy for bicyclists to access without dismounting

Approximately 15% of comments received (7) identified issues with bicycling facilities on Stockton.

- Four comments noted that there needs to be education for bicyclists, as observations suggest bicyclists do not follow rules of the road. “JUMP bike users do not pay attention,” was mentioned as one potential issue.
- Two comments noted that there is limited right-of-way along Stockton Boulevard, and there may not be enough space for bicycle facilities. One noted that an alternative corridor should be identified along residential streets.
- One comment suggested a protected bicycle facility on Stockton would create conflicts with right turning vehicles.

Public Realm

Participants expressed that the corridor lacks destinations and feels unsafe and neglected. Many community members cited that the homelessness issue along the corridor creates an unwelcoming environment for pedestrians. Some expressed feeling that the community was left

out of the discussion around the development of Aggie Square – the development must be required to provide improvements to infrastructure in the area.

Ideas for improving the public realm along the corridor include:

- Host events on Stockton Boulevard
- Create a gateway to Aggie Square to welcome visitors to the corridor
- Add more trees and landscaping to make the corridor attractive
- Add more family-oriented parks, retail, and restaurants for people to walk to

Transit

Many participants reported that they would consider using public transit if there were transit only lanes, bus shelters and benches, and access to real-time schedule information at stops. One person found it difficult to access information about bus schedules.

Ideas for improving the transit experience along the corridor include:

- Install peak-period transit-only lanes
- Consider reducing stops to allow for faster travel
- Add bus shelters, trees, and benches at stops
- Add bus schedule information at stops
- Address issue of homeless people camped out at bus stops
- Build light rail down Stockton Boulevard
- Develop a dedicated service to serve senior communities and connect them to key destinations
- Provide information in other languages identified in community such as Cantonese, Vietnamese
- Consider a circulator bus that traverses the length of Stockton Boulevard.

Driving

Participants cited congestion and incidences of speeding and red light running as factors that impact the driving experience on the corridor. One individual noted that they drive because the reliability of driving is more consistent than SacRT's Route 51.

Ideas for improving the driving experience along the corridor include:

- Traffic calming measures to address speeding
- Add on-street parking between 14th Avenue and Broadway
- Improve signage along the corridor and add stop signals to reduce speeding opportunities
- Education and enforcement to reduce speeding and red light running
- Add capacity during peak times
- Add a bus lane to avoid buses blocking traffic
- Improve enforcement of speeding along the corridor

Additional issues identified by individuals include:

- Event parking in community neighborhoods (and on sidewalks) is a common occurrence
- Medians make left turn opportunities limited

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- Concern that Jump Bike parking stations remove too much on-street parking. Rollout of new stations must be done carefully.

Safety

By and large the biggest problem on Stockton Boulevard reported by all users was that drivers are speeding.

- Signals are spaced too far apart, leading to speeding
- The intersection of Stockton and 14th is confusing for all users

OPEN HOUSE

An Open House targeting traditionally underserved or “difficult to engage” residents was held on August 22, 2019, with the assistance of Mutual Housing Lemon Hill, a community providing housing for families earning at or below half of the area median income. People from three different affordable housing sites (Lemon Hill, Greenway, and Sky Park) were invited to participate in the open house. Fifteen community residents participated in the discussion about existing mobility challenges, current modes of transportation for participants, and the future of mobility on Stockton Boulevard.

Language assistance was unavailable for this engagement; however, the Mutual Housing site lead was able to provide translation for two Vietnamese participants, and a community resident and the City’s project manager were able to provide translation for a Spanish-speaking family.

A summary of the discussion is provided below by topic area.

Challenges

Cleanliness

- Streets are dirty and in need of cleaning/maintenance
- Lack of garbage cans
- Abandoned lots are an eyesore, and collect debris
- Utilities are prominent and unattractive

Safety

- Lack of lighting
- Routes to schools are not safe for students
- Biking and walking in general are perceived as unsafe for young people
- Streets and sidewalks are in need of maintenance and repairs – potholes, deteriorating sidewalks, etc.)
- Streets are unsafe due to high vehicle speeds
- Drivers cause safety issues by taking shortcuts – taking right turns without coming to complete stop at signals and stop signs, cutting through parking lots and gas stations, cutting through neighborhood streets off main corridors
- Sidewalks are too narrow, especially near schools, and for people with mobility challenges
- Lack of sidewalks in some areas adjacent to Stockton Boulevard, especially in southern part of the study area
- A culture that focuses on cars, rather than people walking or bicycling
- Street markings are worn away, especially bike lane markings

Mobility

- Buses perceived to cause congestion as operators pull over to serve stops
- Buses are overcrowded
- Need more bus service and longer span of service

- Bus stops are not attractive, difficult to locate, and don't feel safe at night
- Traffic volumes are too high

Suggested Improvements

Landscaping

- Add more palm trees in center median

Biking and Walking

- Need more shade trees to improve walking conditions
- Pedestrians need more space
- Add buffered space to sidewalks
- Maintain seating to be more inviting, such as repainting benches
- Add bike parking stations
- People need more safety education, for driving and bicycling
- More traffic signals
- Increase width and visibility of bike lanes
- Expand Jump Bike service area

Other Topics

- Connect Stockton Boulevard corridor with Downtown
- Area could use more coffee shops
- A different mix of restaurants along the corridor would be beneficial – fewer drive-throughs, more healthy alternatives and full-service restaurants
- Convert vacant lots into support locations/services for people experiencing homelessness
- Need more places for young people to spend time, and more places that feel welcoming and safe for meeting new people
- Create a space for an international cultural market
- Make shopping centers more inviting
- Policing work needs to focus patrols on community engagement – connect people with services, build community trust. Increase police presence in general.
- More community outreach centers
- Connect with the Black Child Legacy Campaign

APPENDIX C – COMMUNITY SURVEY

An online survey was open from June 24, 2019 to July 21, 2019 and received 292 responses, three of which were in Spanish.

METHODOLOGY

The goal of the community survey was to hear from people who use Stockton Boulevard and understand what challenges they encounter and suggestions for improvement. The survey was administered via Maptionnaire, an online map-based survey platform that allows for location-specific feedback. The survey was available in English, Spanish, and Vietnamese, and promoted through partner outreach.

The survey included a set of multiple-choice questions and two interactive map questions. The map allowed participants to select specific areas along the corridor and input current challenges they face and ideas they had for improvement. These map-based questions were broken up by mode (Walk, Bicycle, Transit, Drive/Park).

CHALLENGES AND IDEAS

Figure 6 provides a summary of the major themes from the challenges and ideas mapping tool comments. Transit and Driving challenges align over the lack of pedestrian crossing – bus riders frequently have to cross in the middle of the street to make it to the bus stop. These uncontrolled crossings are exacerbated by confusing intersections and cars running red lights. Bicycle challenges revolved around lack of facilities and some survey respondents expressed feeling unsafe on Stockton Boulevard in general due to street harassment.

Figure 6 Challenges and Ideas for Stockton Boulevard (N=292)

Mode	Comment themes		Quotes
	Challenges	Ideas	
Bicycling	<ul style="list-style-type: none"> ▪ Poor/inconsistent bicycle facilities ▪ Cars don't look when turning ▪ Glass on roadway ▪ Feels dangerous to bicycle 	<ul style="list-style-type: none"> ▪ Protected bike lanes ▪ Bike routes connecting destinations ▪ Traffic calming measures 	"It feels way too dangerous to ride a bike here even though I would like to"
Walking	<ul style="list-style-type: none"> ▪ Not enough crosswalks ▪ No shade ▪ Drivers don't stop for pedestrians/run red lights ▪ Speeding cars ▪ Feel unsafe walking (harassment and road conditions) 	<ul style="list-style-type: none"> ▪ Shorter pedestrian crossings ▪ Wider sidewalks ▪ More protected crosswalks (at and between intersections) ▪ More shade trees / artwork 	"People run red lights and enter intersection without looking."
Transit	<ul style="list-style-type: none"> ▪ Hard to cross street to transfer buses ▪ No shelter/protection from sun ▪ Stop locations are unclear ▪ Feel unsafe at bus stops ▪ Want light rail 	<ul style="list-style-type: none"> ▪ Add light rail station ▪ Add shade trees ▪ Faster bus service ▪ Improve transit stops (benches, shelter, signage) 	"Once off the bus the option is to jay walk or walk all the way to a cross walk and then back to the residential street that you need to walk down"

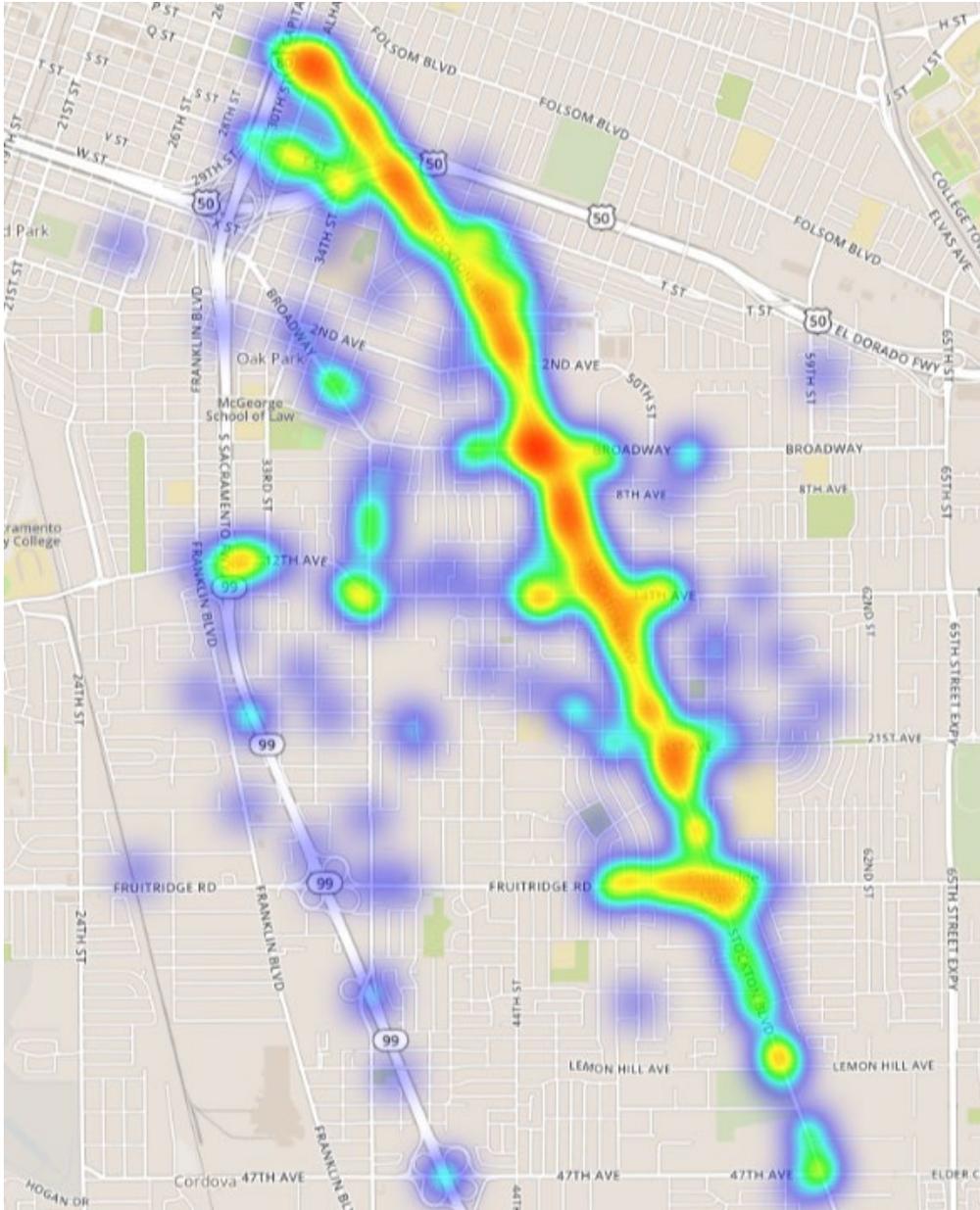
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Mode	Comment themes		Quotes
		<ul style="list-style-type: none"> ▪ Create a pedestrian overpass 	
Driving	<ul style="list-style-type: none"> ▪ No parking ▪ Poor lighting on roadway ▪ Pedestrians walk in the middle of traffic ▪ Turning left is hard ▪ Intersections feel dangerous/confusing ▪ Cars running red lights 	<ul style="list-style-type: none"> ▪ More parking ▪ Expand resident parking program ▪ Add areas for pick-up/drop off ▪ Left turn signals 	<p>“Pedestrians are almost always stepping into the street or running for busses. Busses stop too close to the corner and make it difficult to make legal turns”</p>

Challenges

The heat maps in Figure 7 through Figure 11 show the areas identified by survey participants as challenging for travel. Areas identified as having the greatest challenges to all travel were Broadway and Stockton Boulevard, the segment between Broadway and 14th Avenue, Stockton Boulevard near the US 50 interchange, and the Alhambra Boulevard and Stockton Boulevard intersection (Figure 7).

Figure 7 Areas Identified as Challenging for Travel (All Modes Combined) (N=775)



Bicycling

Respondents cited the northern end of the study corridor, and the Broadway and Stockton Boulevard area, as the most challenging areas for bicycle travel (Figure 8).

Figure 8 Areas Identified as Challenging for People Bicycling (N=288)



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Key survey comments regarding biking on the north end of the corridor include:

- “Stockton and T St is another scary intersection for bicyclists – large intersection to get through and I don’t think cars notice us.”
- “There is more or less no consideration for space for bicyclists crossing at this intersection either crossing on T St. or on Stockton Blvd.”
- “Very scary biking here as cars are turning right into the freeway where there is no bike lane and hard to see bikers.”
- “The yellow/red phases for pedestrians and cyclists crossing Stockton Blvd are too short.”
- “Pot holes and large bumps of asphalt are common, especially where it meets gutters and storm drains at corners.”
- “Riding into Midtown from south of T Street is very challenging. I sometimes take 10-15 minute detours to avoid riding on Stockton.”
- “[34th St.] intersection is confusing for peds and bikes. Can’t it be marked/improved/signalized to make clear who goes where and what the right of way is?”
- “Light rail tracks are dangerous to cross on a bike, both northbound and southbound on Stockton.”
- “All of Stockton is unsafe for cyclists. Neighbors want to bike with their families, but there’s not enough space on the road, people don’t pay attention to bike lanes, and everyone drives too fast.”

Notable survey comments for the area around Broadway and Stockton Boulevard include:

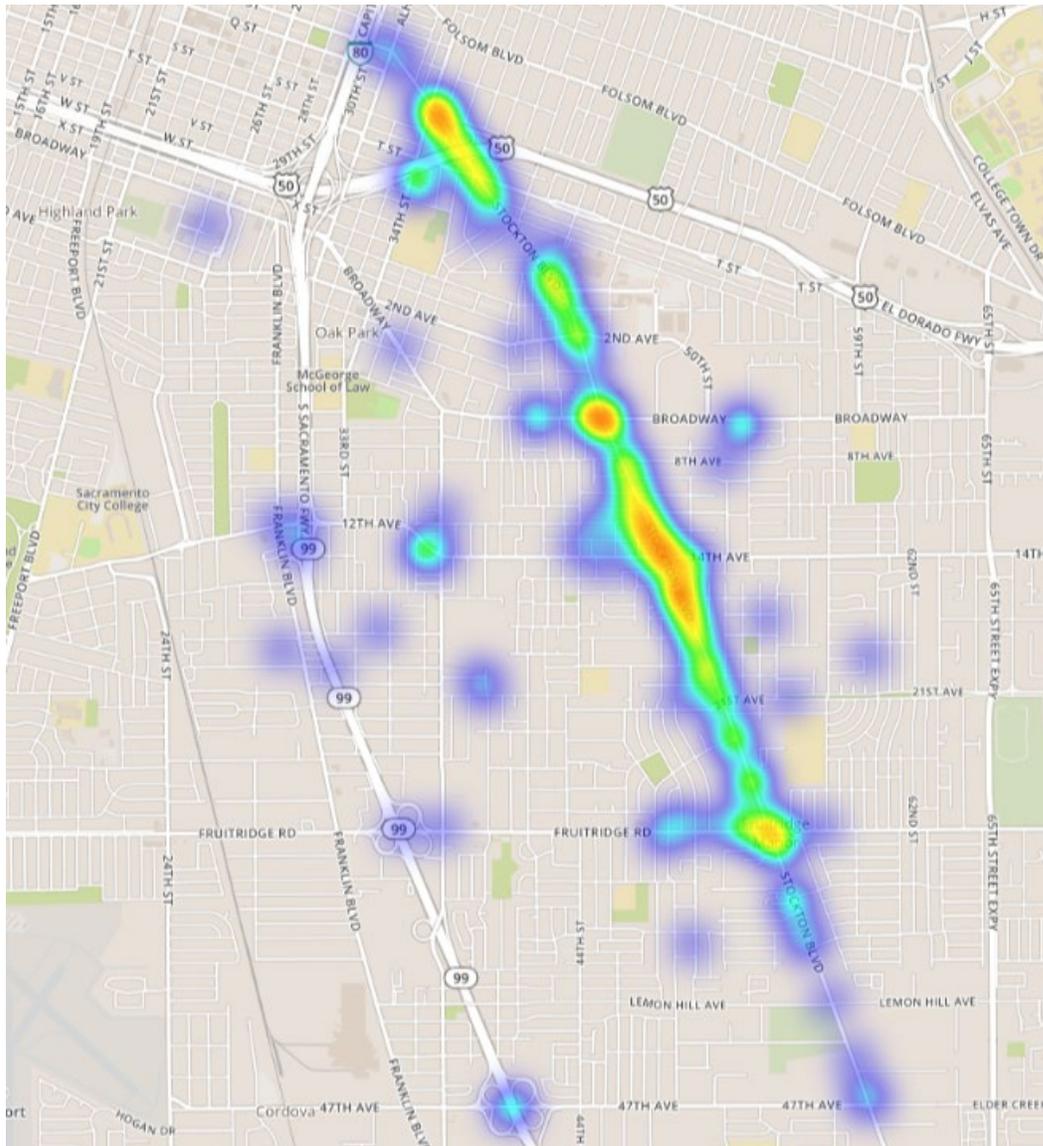
- “The bike lanes end between Broadway and the 50 freeway as you near the hospital, and the lanes that do exist don’t safely extend on both sides of the road.”
- “I avoid this street if at all possible and do not shop this corridor because it is inaccessible and totally hazardous to bike travel.”
- “This spot in particular scares me because of high speed drivers.”
- “It would be great if it was reduced to one lane each way (like Folsom).”
- “Motor vehicle traffic generally aggressive here, and very wide gutter area/inconsistent surface makes for a generally uncomfortable experience.”

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Walking

For people walking, the most challenging areas are the Broadway and Stockton Boulevard intersection, and a long segment along Stockton Boulevard centered on 14th Avenue (Figure 9).

Figure 9 Areas Identified as Challenging for People Walking (N=219)



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Notable survey comments regarding walking on the Broadway and Stockton Boulevard area include:

- “[Drivers] are not patient at this corner. As a pedestrian, I have to watch out for the traffic turning right onto Broadway as they do not always stop and look for people in the crosswalk.”
- “People run red lights. The crosswalk time is sometimes too short for people crossing.”
- “Traffic that turns from Broadway on the right [to NB Stockton Boulevard] is unsafe for pedestrians. There’s a school there. Should be driving slower.”
- “The corridor feels unsafe and there is no shade.”
- “Pedestrian signals frequently malfunction (no walk for 3+ cycles after pushing the button).”
- “Seniors coming from Greenfair [on Broadway east of Stockton Boulevard] have a hard time making it across the street during the walk signal.”

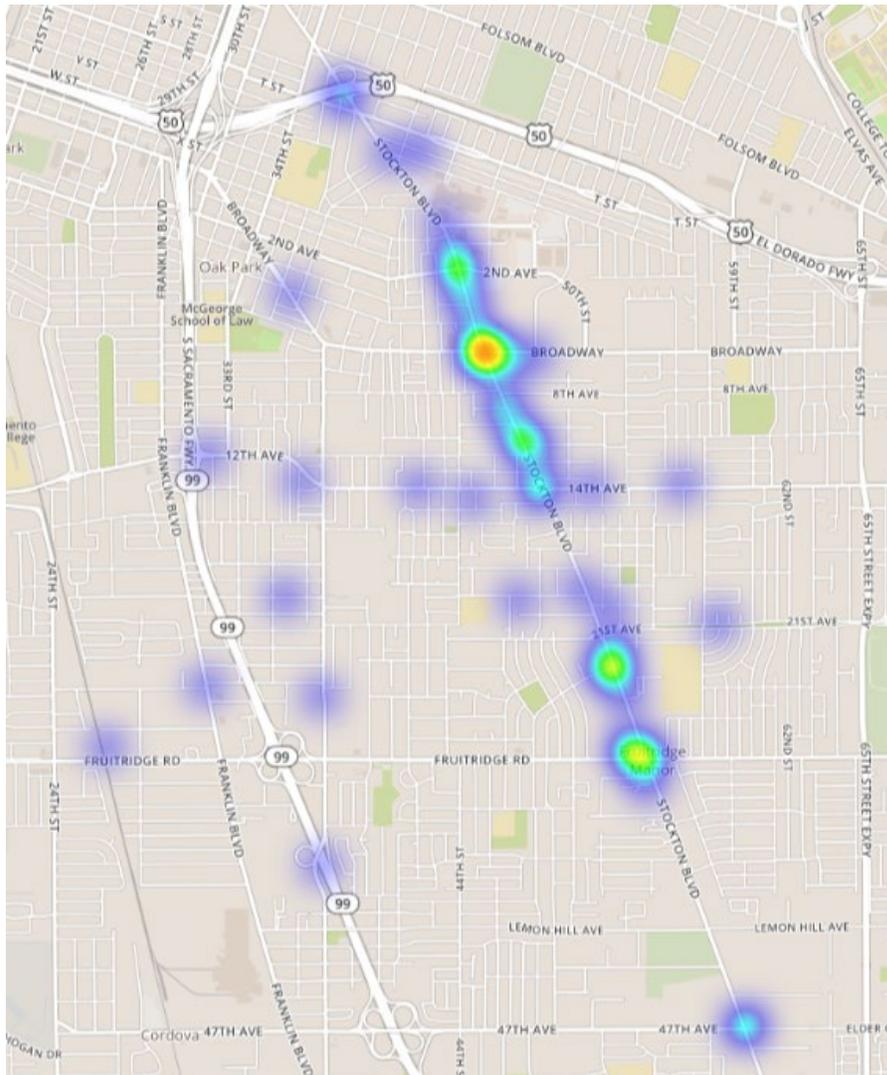
Key comments pertaining to the segment centered on 14th Avenue include:

- “Cars drive way too fast and there are no crosswalks by the Colonial Theater (where are typically groups of people on the sidewalk).”
- “Lack of crossing opportunities.” “Limited safe crossings.” “Not enough places to cross Stockton Blvd between Broadway and 11th Ave.”
- “We don’t walk on Stockton (unless to/from the bus stop) because it’s not pleasant. Even as more businesses take root, the number of lanes and the speed of traffic make it not inviting to explore the area on foot.”

Transit

Areas identified as difficult for taking transit include the Broadway and Stockton Boulevard intersection, and areas near 21st Avenue, Lawrence Drive, and Fruitridge Road (Figure 10).

Figure 10 Areas Identified as Challenging for People Taking Transit (N=60)



Notable comments pertaining to transit in the Broadway and Stockton Boulevard area include:

- “Broadway and Stockton is another important bus connection location that needs improving. It is difficult to cross the large street in time to make connections.”
- “Important connection point between the north-south and east-west bus lines. But this intersection is extremely hostile to pedestrians, making the connection difficult.”

Comments collected at Lawrence Drive, 21st Avenue, and Fruitridge Road include:

- “The 51 has the highest ridership of any route, but only runs every 30 minutes. It would ease congestion if the route ran every 15 minutes. 51 is constantly late or over capacity.”

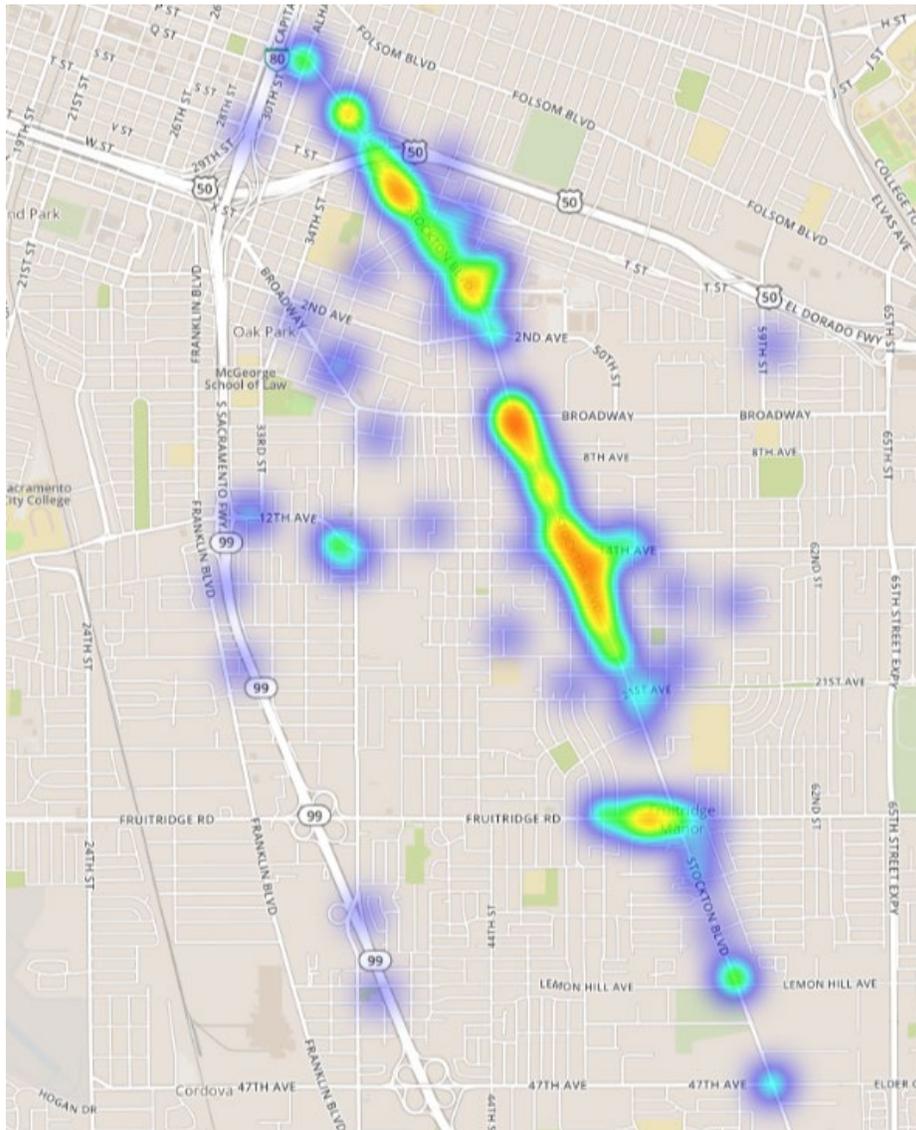
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- “Fruitridge and Stockton is an important connection point between the north-south 51 and the east-west 61.”
- “I’ve often been nearly missed by turning cars while in the crosswalk, while the 51 is approaching. Pedestrians should have some grace time before cars are allowed to move forward.”

Driving and Parking

Several hot spots emerged as most challenging for people driving and parking, including the intersection of Broadway and Stockton Boulevard, a segment centered on 14th Avenue, and areas near T Street and Fruitridge Road (Figure 11).

Figure 11 Areas Identified as Challenging for People Driving and Parking (N=208)



Challenges identified at Broadway and Stockton Boulevard by driving include:

- Difficulty in accessing businesses due to narrow driveways and short turn lanes
- Signal phasing that seems to skip some turn movements during some phases
- Lack of on-street parking

Along Stockton Boulevard near 14th Avenue, survey respondents identified challenging including:

- Signal loop detectors that do not detect motor scooters

- Lack of lighting that makes it difficult to see people walking and bicycling
- High pedestrian volumes making turning difficult
- Lack of on-street parking
- Drivers parking on the sidewalk
- Drivers diverting onto neighborhood streets to avoid congestion at peak hours

Ideas

Key ideas gathered through public survey comments are organized below according to the most challenging locations identified in the preceding section.

T Street

- Longer yellow and red phases for people walking and bicycling, including audible signals and pedestrian signal heads
- Median crossing islands to enable two-stage crossings
- Better street lighting
- Add dedicated bike lanes on Stockton Boulevard, possibly with green paint, or with physical protection from motor vehicle traffic
- Improve street markings and signage so all users can navigate more safely
- Clear markings for bicyclists through the intersection, including bike boxes

Broadway

- Create a protected bike lane from Broadway to downtown
- Adjust signal phase to give more time to people walking across the intersection
- More shade trees, and incentives or grants for property owners to make their properties more welcoming for walking
- Consider a road diet on Stockton Boulevard

Segment centering on 14th Avenue

- Extend bulbouts to shorten crossing distances
- Add pedestrian-scale lighting, benches, wayfinding signage, street trees and landscaping, widen sidewalks, and other pedestrian amenities
- Build grade-separated bike lanes
- Push buttons to request a green phase that are accessible to people on bicycles
- Add bike parking at key transit stops
- More safe crossing opportunities across Stockton Boulevard
- Reduce the number of travel lanes to add a protected bike lane and on-street parking
- Add a HAWK signal to enhance existing mid-block crossing

21st Avenue

- Add traffic calming measures to improve walking and bicycling access to stores, restaurants, library, and playground.

Fruitridge Road

- Create dedicated bus lanes, transit signal priority, and protected bike lanes
- More shade trees and shelters at bus stops
- Widen sidewalks and consolidate driveway access
- Make pedestrian signal phase standard, and remove pedestrian push buttons
- Alter zoning code to remove parking minimums for new developments to encourage less driving
- Extend planted medians to make walking more pleasant and slow car traffic

RESPONDENT PROFILE

Figure 12 shows that a large majority of respondents live close to the middle section of the corridor. Of the 292 people who responded to the survey, 60% of them were female (Figure 13), 66% were white (Figure 14), and 87% marked English as the language they speak the most at home (Figure 15).

Figure 12 Community Survey Respondents by Home ZIP Code

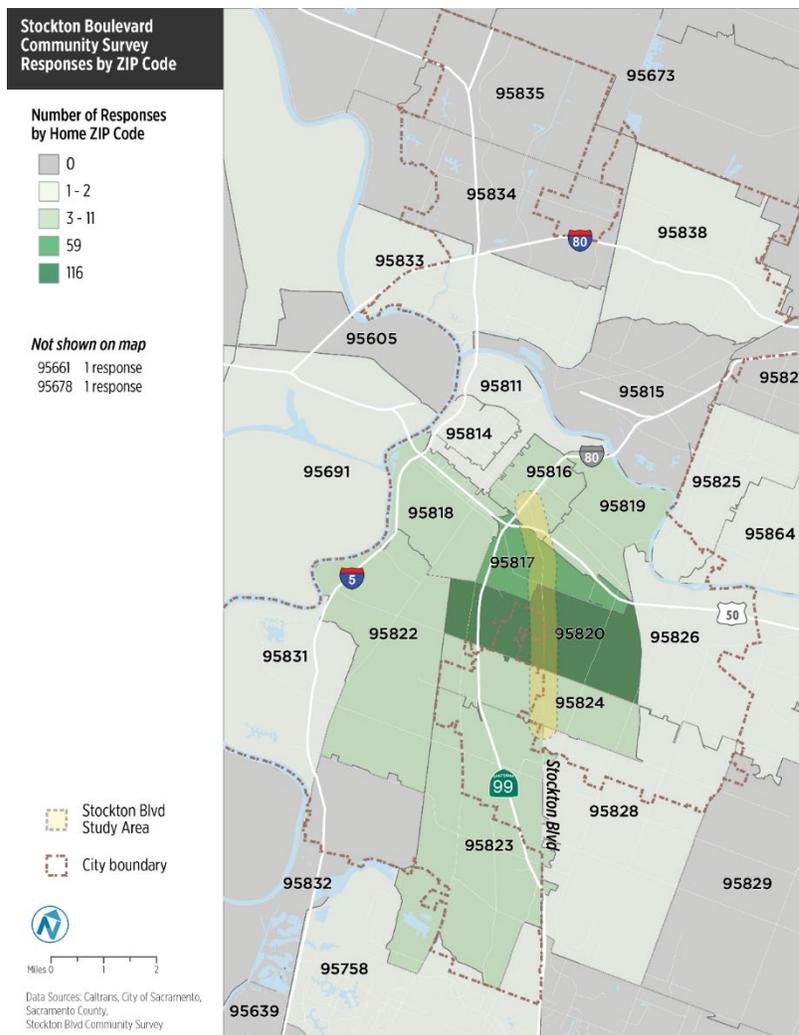


Figure 13 I describe my gender as ___ (N=249)

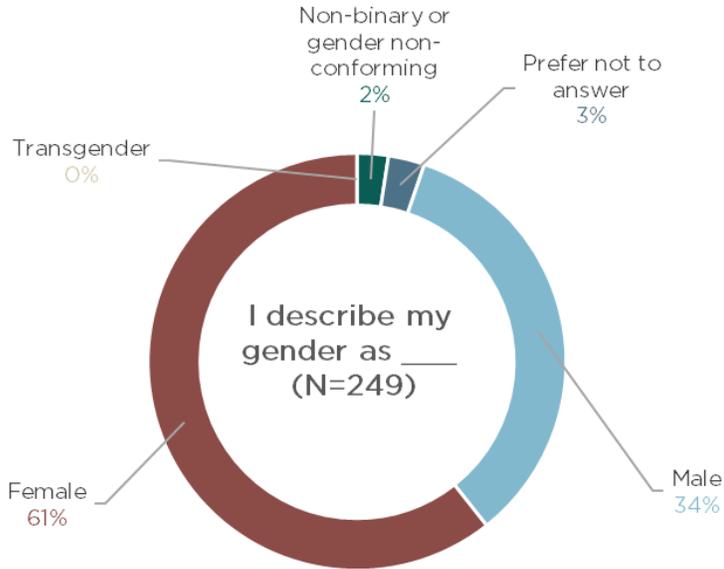


Figure 14 How do you describe your race or ethnicity? (N=237)

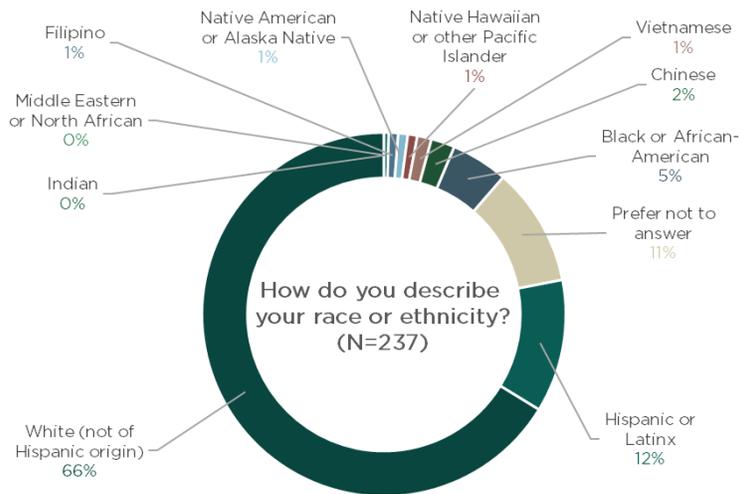


Figure 15 What language do you speak most often in your home? (N=248)



Figure 16 What is your age? (N=250)

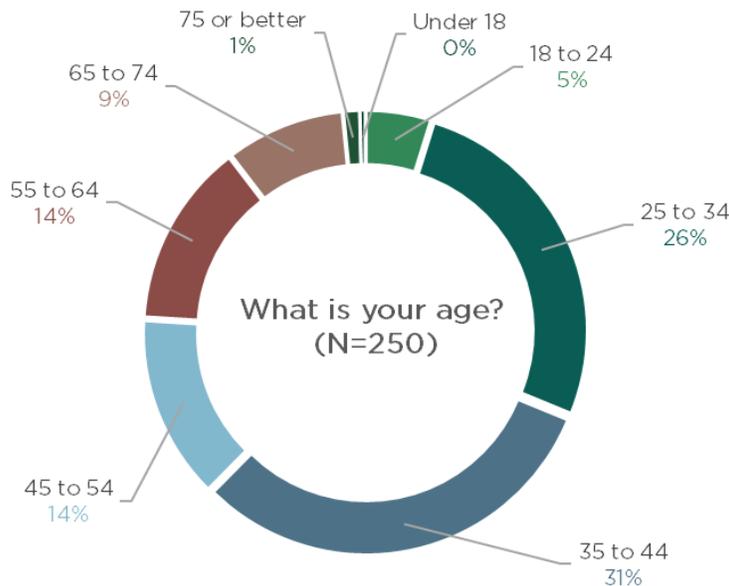


Figure 17 shows the comparison in age and race between survey participants and residents within the study area overall. The survey universe over-represented adults ages 25 to 44, and under-represented people younger than age 25. Adults between ages 45 and 74 were represented roughly proportionally with their share of the overall study area population. In terms of race, white

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residents were over-represented in the survey universe, while all non-white groups were under-represented.

Figure 17 Demographic Comparison, Survey Universe and Study Area

	Survey Respondents	Study Area Residents ¹
Age		
Under 18	<1%	22%
18 to 24	5%	9%
25 to 34	26%	20%
35 to 44	31%	14%
45 to 54	14%	12%
55 to 64	14%	12%
65 to 74	9%	7%
75 or better	1%	5%
Race		
White	66%	37%
Hispanic or Latinx	12%	30%
Prefer not to answer	11%	-
African American	5%	10%
Asian ²	4%	16%

Sources: Stockton Boulevard Community Survey and 2017 5-year American Community Survey

[1] The study area demographic profile is drawn from the same block groups used in the Stockton Boulevard Existing Conditions report community profile, including the population/employment analysis and transit propensity index.

[2] Survey respondents were able to choose from multiple options including Vietnamese and Filipino (see Figure 14). These survey categories were collapsed to compare with the ACS, which only gives the option "Asian".

TRAVELING STOCKTON BOULEVARD TODAY

Of the survey respondents, more than half of people visit the corridor five or more days per week (Figure 18), and the number of people passing through without stopping versus people who stop at one or more places along Stockton was split down the middle (Figure 19). This is consistent with the SACSIM travel demand model outputs.

Figure 18 How often do you visit or spend time on Stockton Boulevard? (N=283)

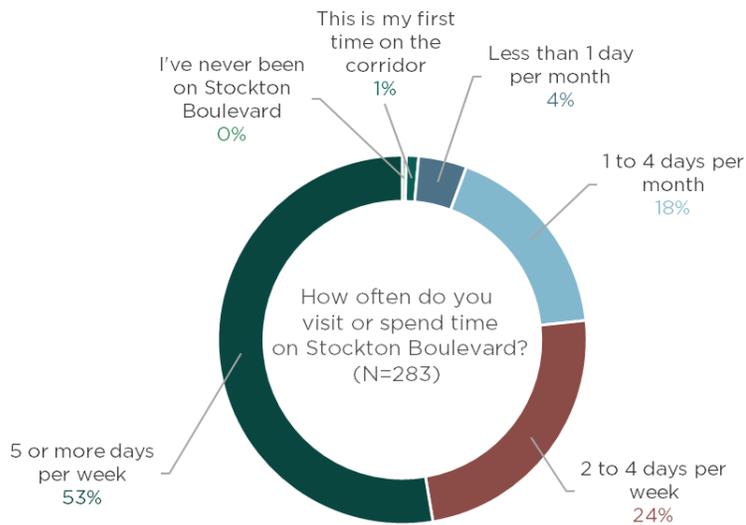


Figure 19 Do you typically travel THROUGH Stockton Boulevard or TO places on Stockton Boulevard? (N=251)

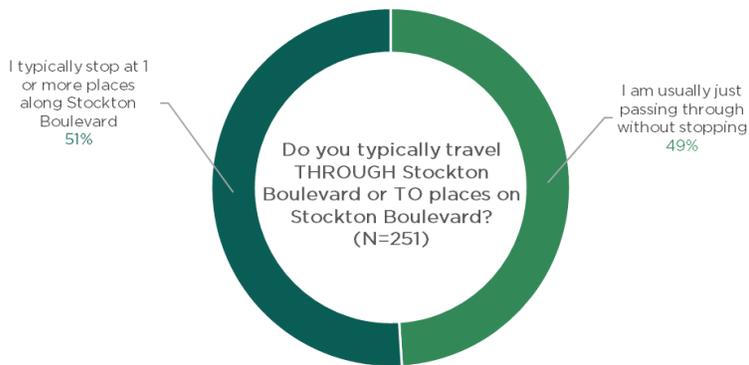


Figure 20 shows that respondents did not favor a particular time of day for visiting the boulevard.

Figure 20 What times of the day are you usually on Stockton Boulevard (N=251)

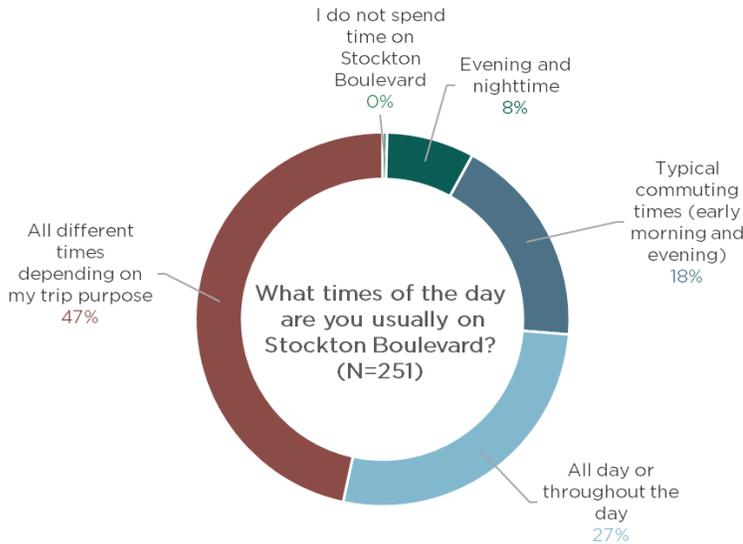
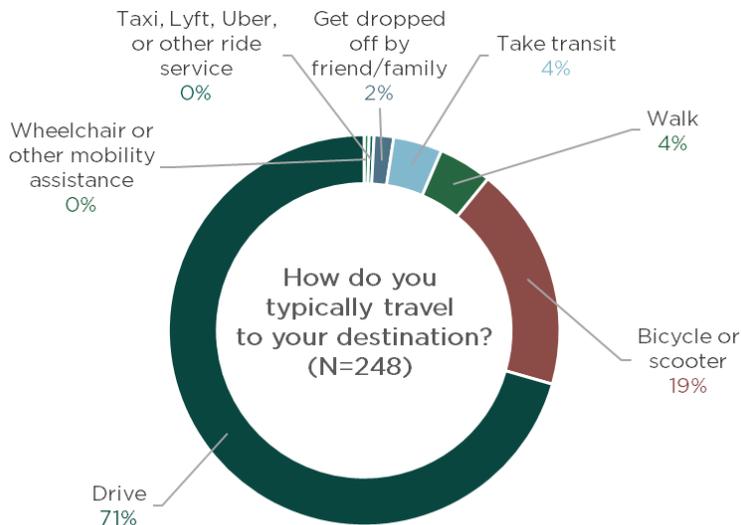


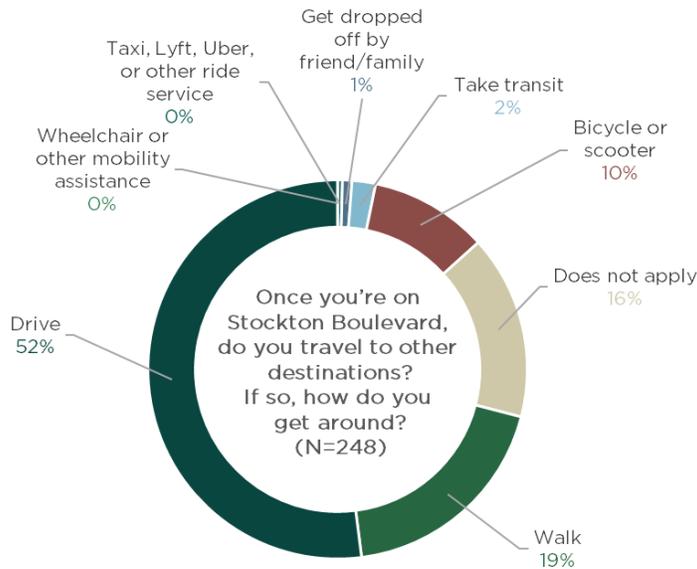
Figure 21 shows that the majority of survey respondents (71%) drive to Stockton Boulevard today. A high percentage of people bicycle.

Figure 21 How do you typically travel to your destination? (N=248)



While only 4% of respondents walked to Stockton Boulevard, Figure 22 shows that once people were at the corridor, 19% walked to get around. Conversely, while 19% of respondents said they used a bicycle or scooter to travel to their destination on Stockton Boulevard (Figure 21), only 10% said they used it to travel to another destination along the corridor.

Figure 22 Once you're on Stockton Boulevard, do you travel to other destinations? If so, how do you get around? (N=248)



Some of the most common destinations listed by survey respondents along the corridor include:

- UC Davis Medical Center
- Colonial Heights Library
- Fruitridge Shopping Center and nearby businesses
- Restaurants and businesses around Broadway and Stockton
- Luigi's Pizza Parlor (13th Avenue and Stockton Boulevard)
- Food Source (Broadway just west of Stockton Boulevard)
- La Superior market (22nd Avenue and Stockton Boulevard)

All destinations listed by survey respondents are shown in Figure 23. Destinations are clustered in several primary areas: UC Davis Medical Center, Broadway and Stockton Boulevard, Stockton Boulevard between 9th Avenue and 14th Avenue, and areas from 21st Avenue to Fruitridge Road. Survey participants also identified other key destinations outside the study area (not shown on the map) around 65th Street and Florin Road.

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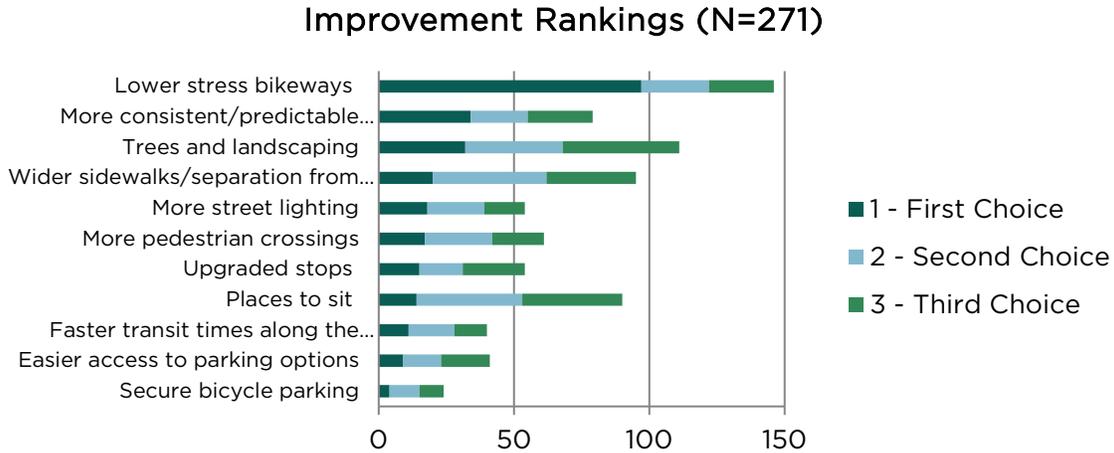
Figure 23 Community Survey Destinations



CHANGES TO STOCKTON BOULEVARD

Survey respondents were asked to rank the top three things that would make Stockton Boulevard more attractive to them. The options appeared in random order each time to avoid a selection bias toward the first few answers shown. Results from this question are shown in Figure 24 and Figure 25.

Figure 24 Improvement Rankings listed by volume of number one rankings (N=271)



Note: 1= highest, 3=lowest, and options could be left blank

Lower Stress Bikeways were by far the highest ranked improvement, with 97 people ranking it number 1. More Consistent/Predictable Traffic Flow received the second-most number 1 votes (34 people), and Trees and Landscaping received the third highest amount of number one rankings (32 people). When second and third place rankings are incorporated, the top three improvements were Lower Stress Bikeways, Trees and Landscaping, and Wider Sidewalks/More Separation from Moving Traffic, respectively. Figure 25 uses a weighted average to provide a detailed look at the rankings and calls out the improvements that received the most number 1 rankings².

Figure 25 Weighted Average of improvements and Top 5 ranked most important (N=271)

Category	Improvement	Top 5 most important, based on total of #1 rank votes	Weighted Average (3 = most important, 0 = not important)
Bicycling	Lower stress bikeways	1	1.35
Placemaking	Trees and landscaping	3	0.78
Walking	Wider sidewalks/separation from traffic	4	0.65
Driving	More consistent/predictable traffic flow	2	0.62
Placemaking	Places to sit		0.58
Walking	More pedestrian crossings		0.44

²Weighted average calculated by weighting items ranked number one as three, two with two, third place ranking with a weight of one, and non-votes with a rank of zero. The weighted total was then divided by the total number of survey responses.

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Placemaking	More street lighting	5	0.41
Transit	Upgraded stops		0.37
Transit	Faster transit times along the corridor		0.29
Driving	Easier access to parking options		0.27
Bicycling	Secure bicycle parking		0.16

Lower Stress Bikeways were most popular among people who chose Bicycling or Scooter and Driving as their mode of travel to Stockton Boulevard. Twenty-eight percent of drivers ranked Lower Stress Bikeways as their number one improvement, compared to only 15% drivers who voted More Consistent/Predictable Traffic Flow as their number one choice.

The only survey respondents who ranked More Consistent/Predictable Traffic Flow as their number one choice were drivers and walkers. A majority of transit riders and walkers chose Wider sidewalks /Separation from traffic as their number one ranking.

APPENDIX D – TRANSIT RIDER SURVEY

METHODOLOGY

By default, transit riders are active users of Stockton Boulevard and typically walk to and from bus stops. A survey of transit riders was geared at understanding origins and destinations, perceptions of safety and comfort accessing transit by all modes, and demographic characteristics. The survey was administered in English and Spanish on board SacRT Route 51 in July 2019 and yielded 358 responses.

ORIGINS AND DESTINATIONS

Many people started their trip from home (Figure 27), but destinations varied more widely (Figure 28). These end destinations did not change much by age, gender, or race but did vary slightly for income —riders from higher income households were more likely to be on their way to work on school/college.

Figure 26 Community Members Participating in Transit Rider Survey



Figure 27 Where did you start your trip (N=356)

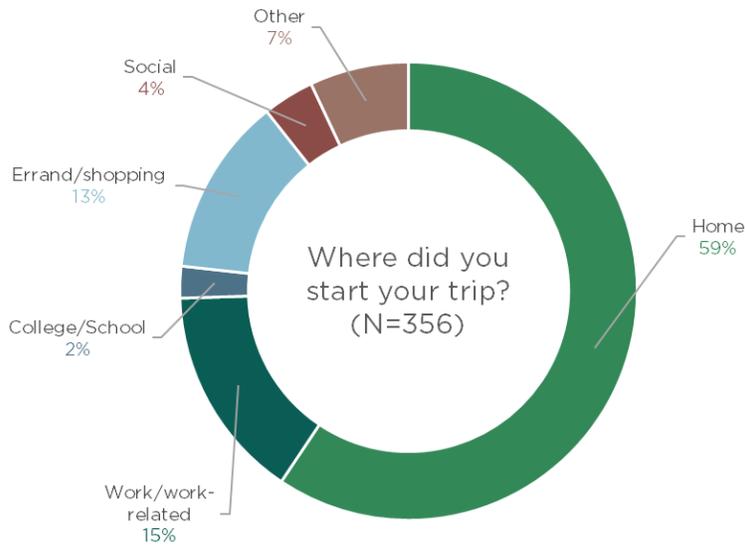
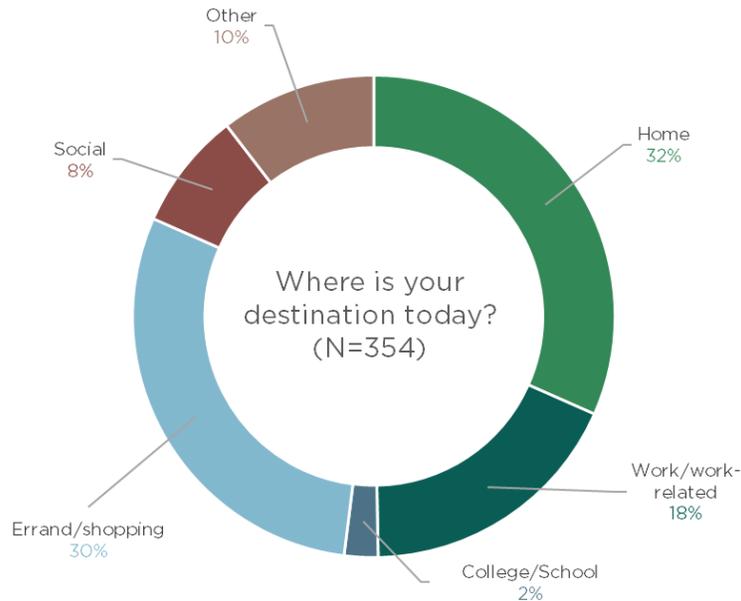


Figure 28 Where is your destination today? (N=354)



Walking is by far the most popular way to reach the bus stop (Figure 29) — this held true across gender, race, and income. Figure 30 show how walking is also the most popular way to get from the bus to a final destination. Transferring from or to another bus was the second largest group of responses. Of alternative modes, men were more likely than women to ride a bicycle or scooter, or use a ride share service (Taxi, Lyft Uber) to get to and from the bus stop.

Figure 29 How did you get to the bus stop? (N=358)

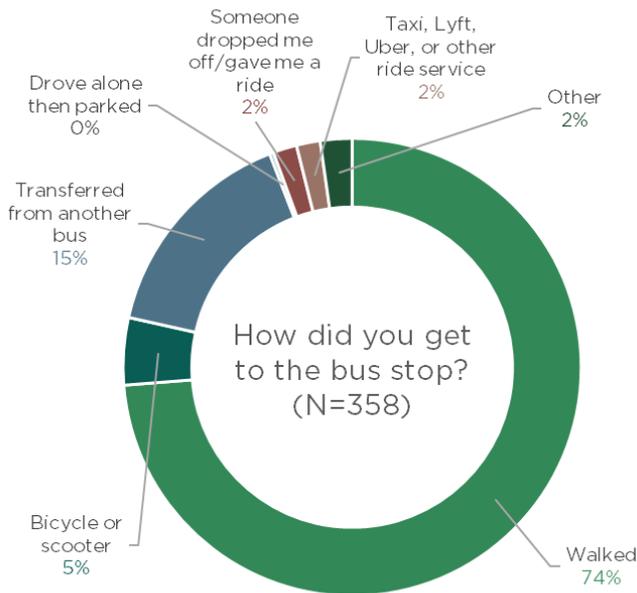
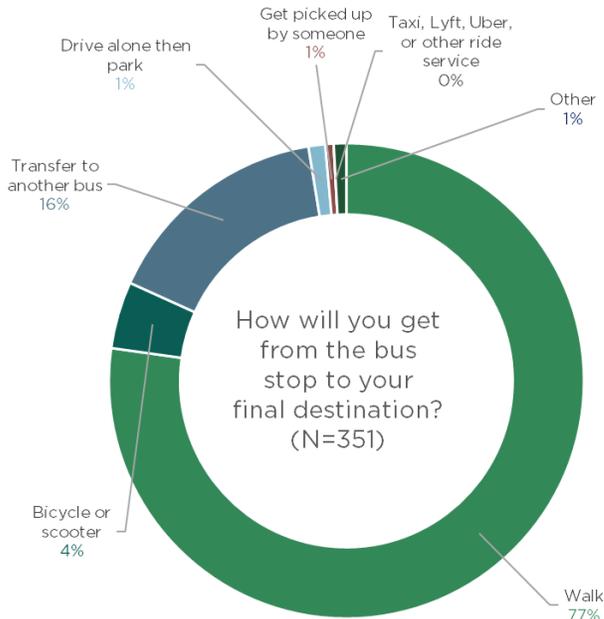


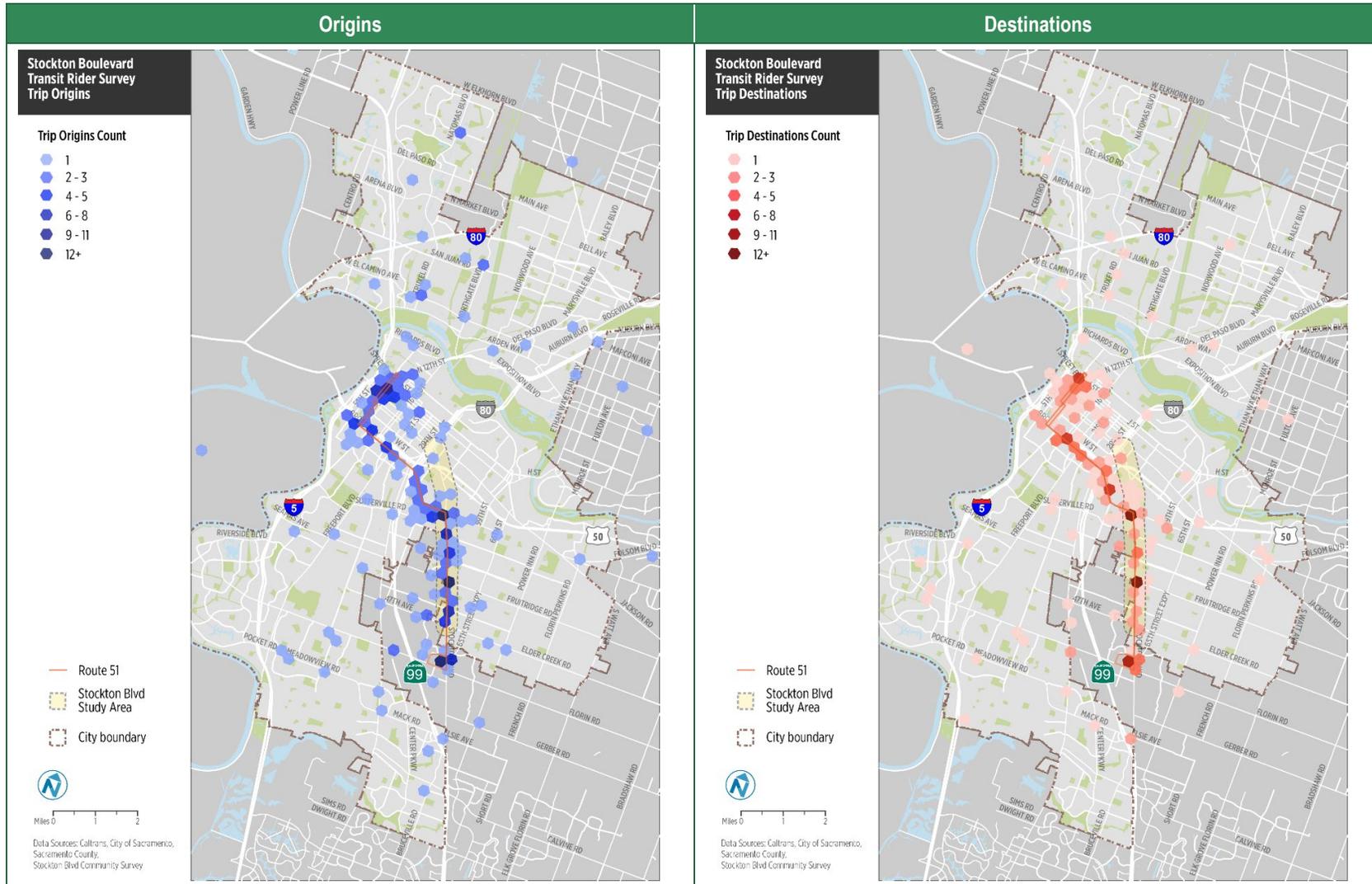
Figure 30 How will you get from the bus stop to your final destination (N=351)



Passengers were asked to list where they started and ended their trip (Figure 31). Some passengers misunderstood the question and listed the bus stop as their boarding location.

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Figure 31 Passenger Origins & Destinations



RIDER PROFILE

Figure 32 shows the largest number of responses coming from people in the 55 to 64 category. Respondent gender was evenly split between female and male (Figure 33).

Figure 32 What is your age? (N=342)

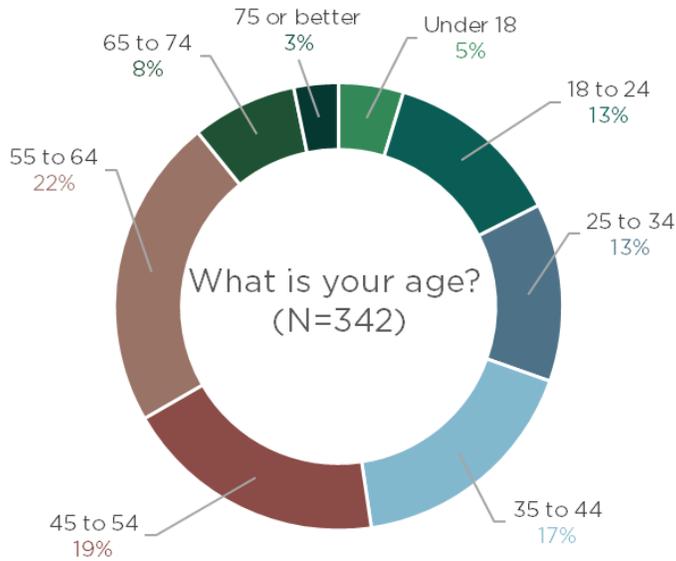


Figure 33 I describe my gender as... (N=339)

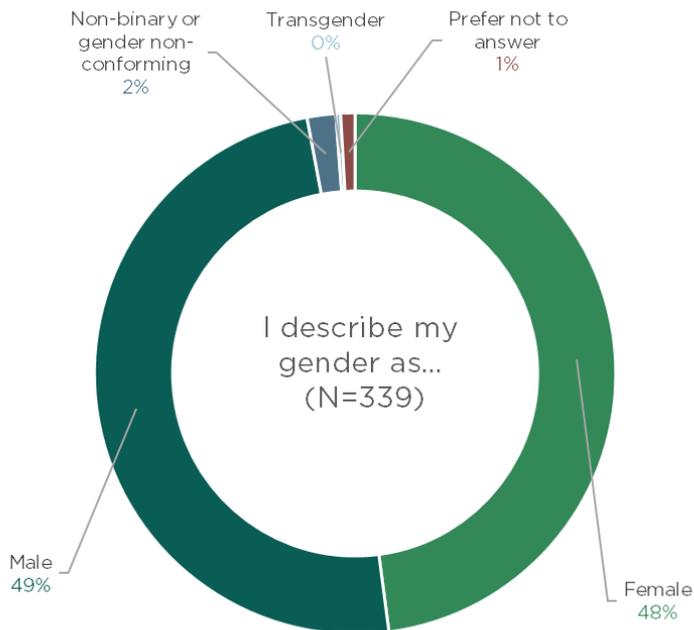


Figure 34 shows how people described their race or ethnicity. The largest group of respondents were Black or African, followed by slightly smaller buckets of White and Hispanic/Latinx.

Figure 34 How do you describe your race or ethnicity? (N=336)

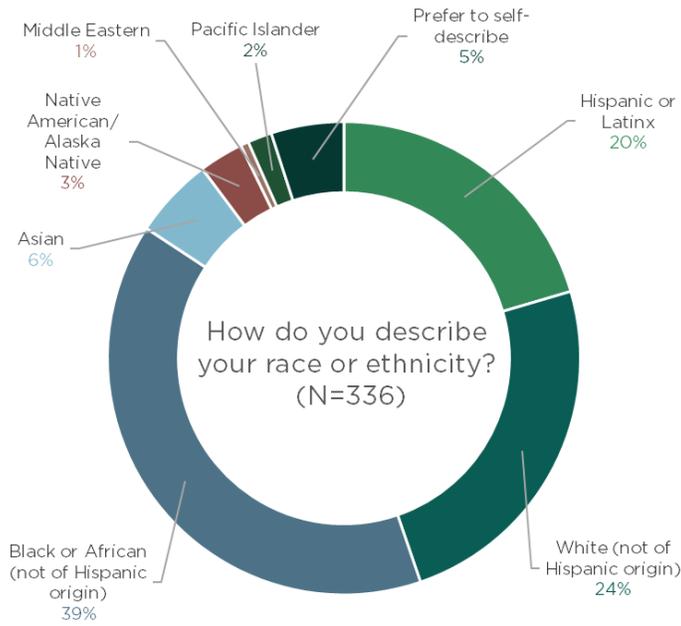
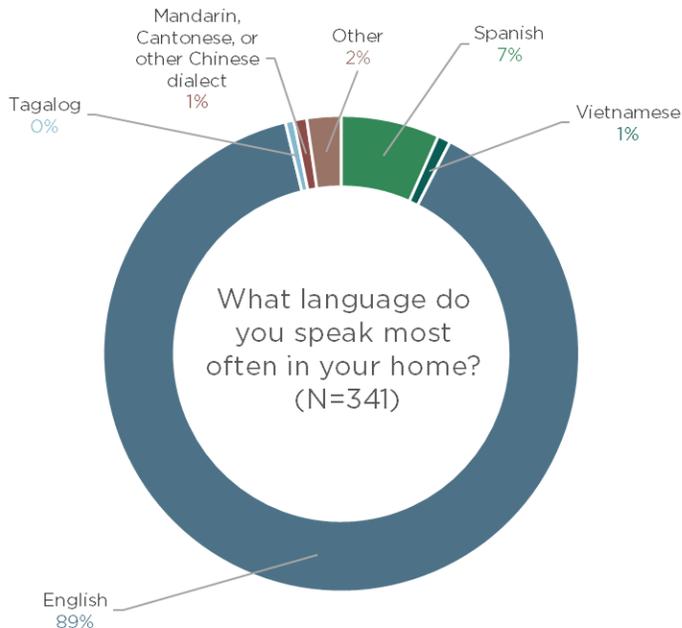


Figure 35 shows how 89% of respondents speak English at home and Spanish is the second-largest category, accounting for only 7% of the respondents.

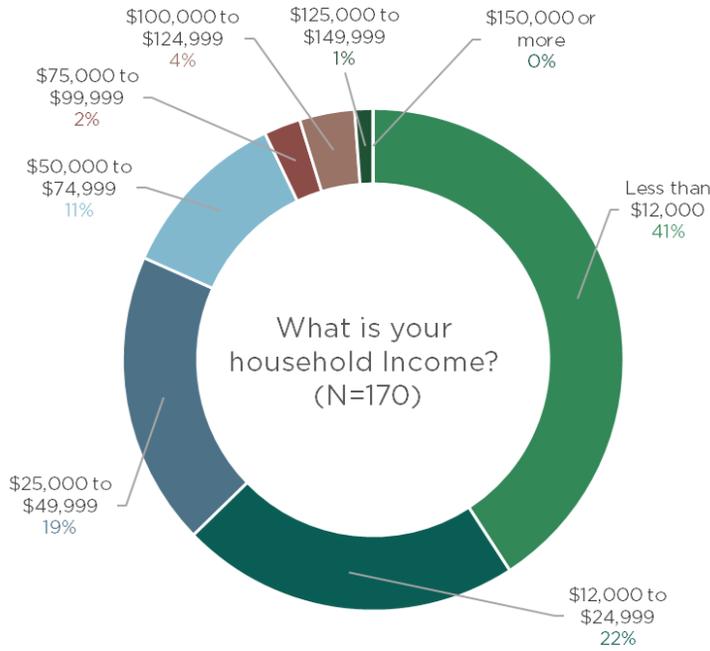
Figure 35 What language do you speak most often in your home?



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Less than half of survey respondents answered the household income question (Figure 36), but of those who did, 63% make less than \$24,999 a year.

Figure 36 What is your household Income? (N=170)



Looking at the survey respondents in comparison to Census demographics of the study area, the transit rider survey is slightly over-representative of Black or African people and under-representative of all other race/ethnicity categories. There was also an over-representation of people with household incomes lower than \$24,999 a year, and the 55 to 64 age group. (Figure 37).

Figure 37 Demographic Comparison, Transit Survey Universe and Study Area

	Survey Respondents	Study Area Residents ¹
Age		
Under 18	5%	22%
18 to 24	13%	9%
25 to 34	13%	20%
35 to 44	17%	14%
45 to 54	19%	12%
55 to 64	23%	12%
65 to 74	8%	7%
75 or better	3%	5%
Race		
White	24%	37%

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	Survey Respondents	Study Area Residents ¹
Hispanic or Latinx	20%	30%
Prefer to self-describe	5%	-
African American	39%	10%
Asian ²	6%	16%
Household Income		
Less than \$24,999	63%	30%
\$25,000 to \$74,999	30%	65%
\$75,000 or more	7%	5%

Sources: Stockton Boulevard Community Survey and 2017 5-year American Community Survey

[1] The study area demographic profile is drawn from the same block groups used in the Stockton Boulevard Existing Conditions report community profile, including the population/employment analysis and transit propensity index.

[2] Survey respondents were able to choose from multiple options including Vietnamese and Filipino (see

Figure 14). These survey categories were collapsed to compare with the ACS, which only gives the option “Asian”.

[3] The ACS breaks household income differently than the transit survey, so ranges were collapsed into larger buckets to help compare across the different surveys.

CHALLENGES AND IDEAS

The survey asked people if their route to the bus is comfortable; Figure 38 shows that most people reported that it is. Of those who responded “No,” 61% were women.

Figure 38 When you walk, bicycle, or drive to your bus stop, is the route comfortable?

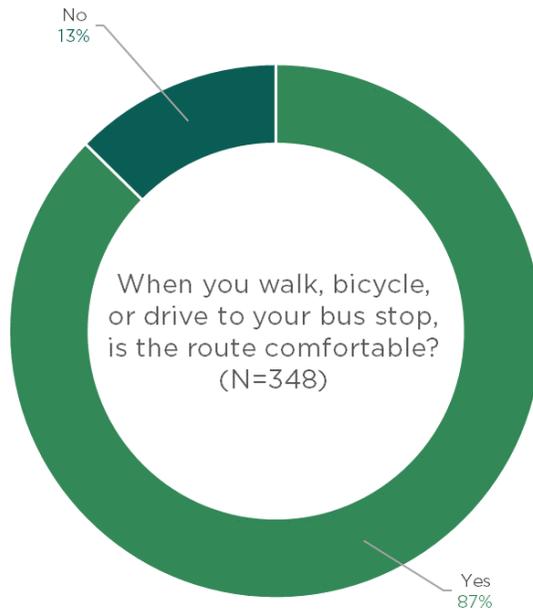
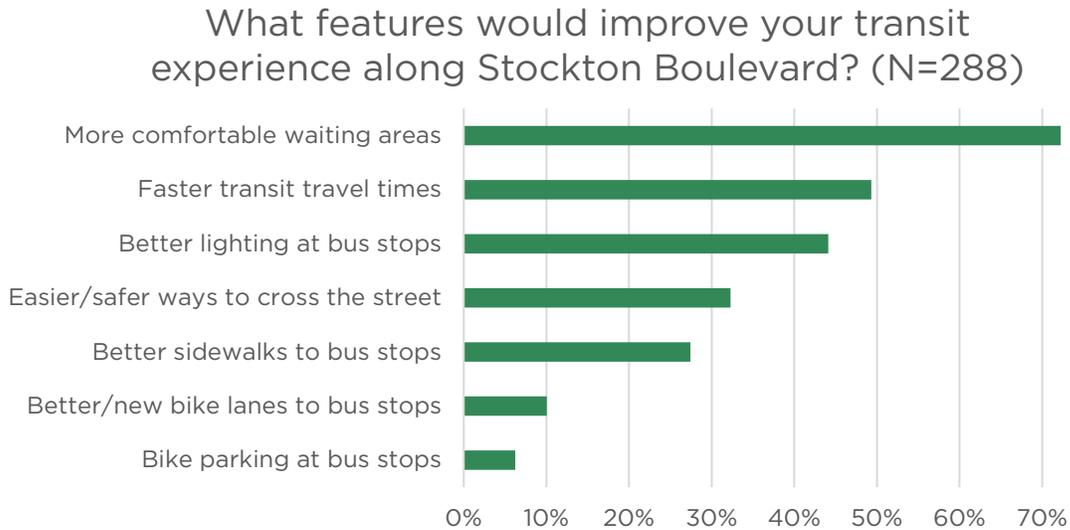


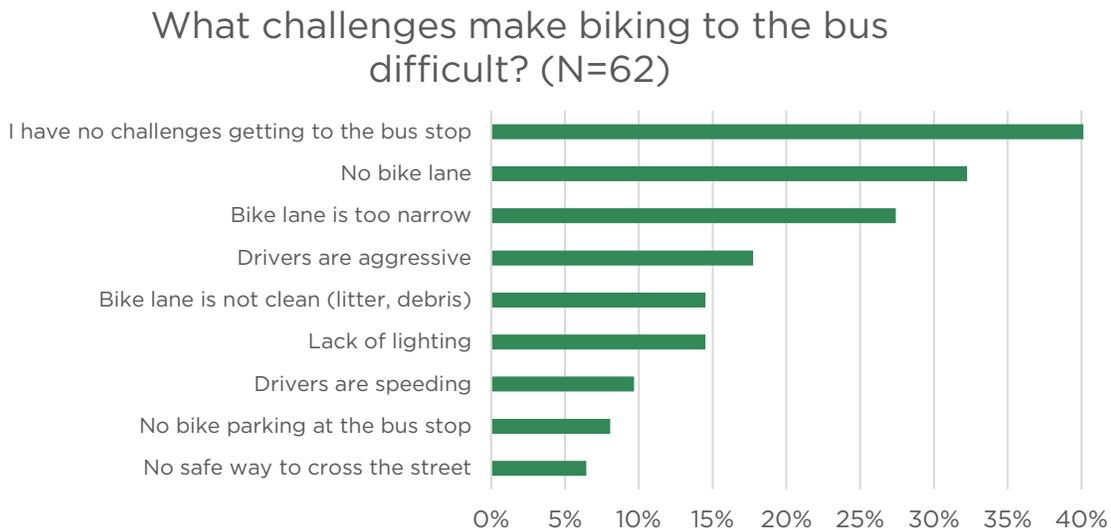
Figure 39 shows that more comfortable waiting areas is the top desire by riders.

Figure 39 What features would improve your transit experience along Stockton Boulevard? (N=288)



People were also asked to list challenges of getting to the bus stop by mode. While more than half of respondents never bicycle to the bus stop, Figure 40 shows those who do either have no challenge getting to the bus stop or listed having no bike lane, narrow bike lanes and aggressive drivers as their top challenge.

Figure 40 What challenges make biking to the bus difficult? (N=62)



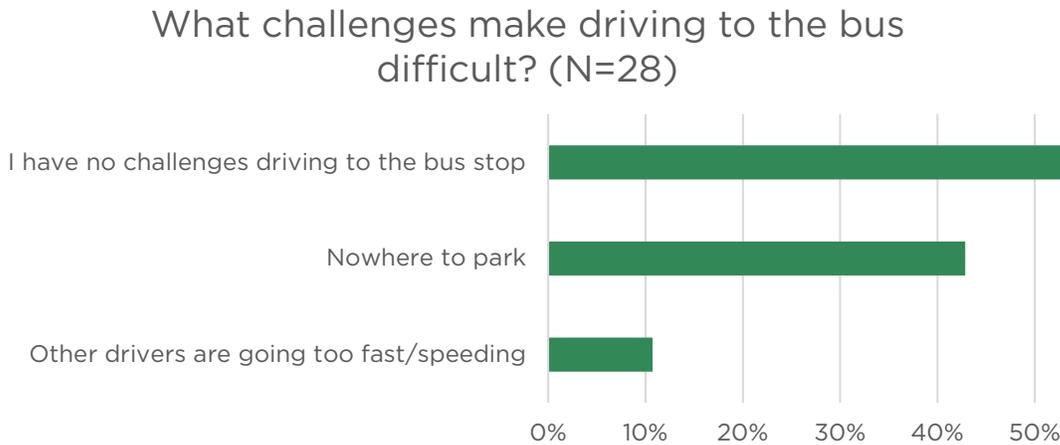
A majority (51%) of respondents reported having no challenges walking to the bus stop (Figure 41). The top three challenges listed were cars not stopping when people were crossing and street, cars going too fast, and personal security reasons.

Figure 41 What challenges make walking to the bus difficult? (N=336)



Very few people surveyed drive to a bus stop. Of the 28 people who said they did, Figure 42 shows that 54% reported having no challenge, and nowhere to park was the top challenge listed.

Figure 42 What challenges make driving to the bus difficult (N=28)



APPENDIX E – STREETS CONTEXT

PLANNING CONTEXT

Relevant recommendations from previous planning efforts are summarized below.

City of Sacramento Pedestrian Master Plan, City of Sacramento, 2006

The Pedestrian Master Plan identified locations of demand for walkability and what infrastructure gaps need to be addressed. In general, the analysis identified:

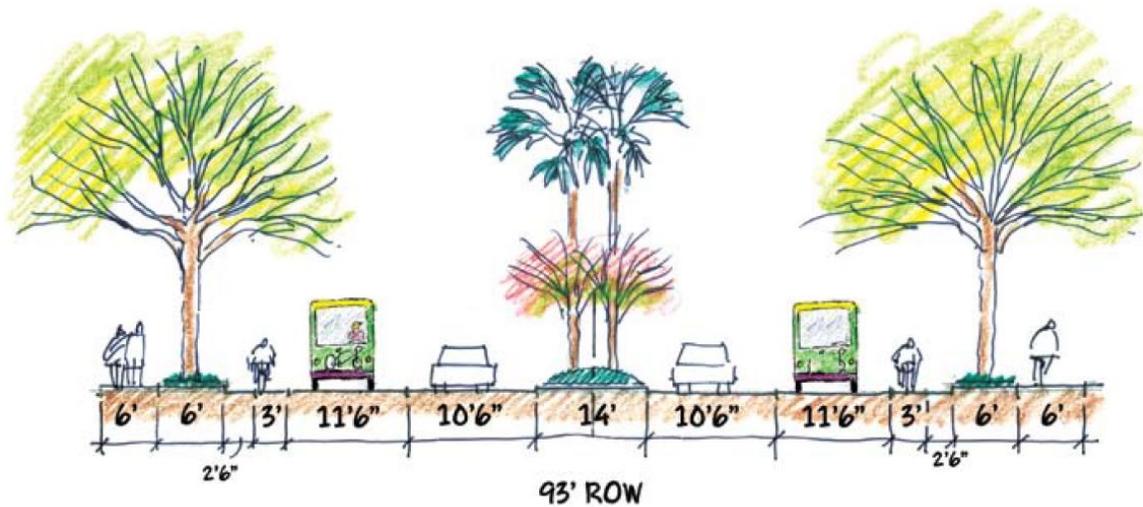
- At least 80% sidewalk coverage along Stockton Boulevard, resulting in a low “Pedestrian Deficiency Score,” suggesting high walkability according to the Plan.
- The Study area has a relatively high pedestrian demand score, with parcels adjacent to the study area ranked in the top quintile north of 21st Avenue.
- Stockton Boulevard from 14th Avenue to 21st Avenue was identified as priority areas for future pedestrian improvements.
- Based on collision rates, crossing sites between 21st Avenue and Elder Creek were identified as candidate crossings

Stockton Boulevard Imagined, Urban Land Institute, 2009

In 2009, Urban Land Institute (ULI) provided high level advisory services to reimagine Stockton Boulevard. The document identified the following strategies:

- Establish a Community Development Corporation to provide the area with focused leadership and energy to drive reinvestment
- Short-term initiatives including but not limited to neighborhood plans, job fairs, community festivals, banners, and marketing to bring together community members and ignite business partnerships
- Implement strategies to improve Public Safety
- Land assemblage to create redevelopment opportunities out of obsolete buildings and vacant parcels
- Road design that accommodates existing traffic and offers dedicated ROW for other modes, as seen in Figure 43

Figure 43 Conceptual Cross Section for Stockton Boulevard by ULI



Sacramento Transit Action Regional Transit Master Plan, Sacramento Regional Transit District, 2010

The Transit Action Plan provides guidance for improving SacRT’s services through 2035. The Plan’s Preferred Network (Scenario C) identified Stockton Boulevard as a corridor where Hi-Bus services should be targeted. Hi-Bus services may be:

- **Bus Rapid Transit** includes a dedicated right-of-way at street level, with limited transit stops to support high frequencies
- **Enhanced Bus** service has bus lanes in mixed traffic environments with signal priority at key intersections
- **Express Bus** is a commuter service that operates in bus lanes or mixed traffic, typically along an existing bus route but with less stops

Sacramento County Bicycle Master Plan, County of Sacramento, 2011

Sacramento County developed a countywide plan to enhance regional bicycle connectivity. The Plan outlined existing conditions, providing design standards for jurisdictions to consider, and proposing bicycle corridors. The Plan identifies Stockton Boulevard’s existing bicycle lane from Broadway to Mack Road, and proposes a new bicycle lane from Broadway north to T Street.

Stockton Boulevard Opportunity Sites: Opportunity for a Sustainable Stockton Boulevard, Sacramento Housing and Redevelopment Agency, 2011

The Sacramento Housing and Redevelopment Agency identified two potential redevelopment sites along Stockton Corridor.

The first opportunity is the San Juan Site, a 13.35-acre area located on the west side of Stockton Boulevard, one block south of Fruitridge Road. Much of this area is within the jurisdiction of unincorporated Sacramento County. The 700 feet of frontage onto Stockton Boulevard are an opportunity for significant commercial space. Options include:

- Senior housing, commercial space, medical services, and single-family housing
- Sustainable modular village consisting primarily of residential development and some commercial development
- Transit Oriented Village
- Townhomes and commercial services.

The second site is the River City Site Study Area. This 0.57-acre parcel is located on the southwest corner of the intersection at Baker Avenue. This single parcel would be considered to introduce refreshed commercial space, or live-work townhomes.

Sacramento General Plan 2035, City of Sacramento, 2015

The General Plan's Mobility Chapter identified existing transportation networks, and outlines policies for future changes. Stockton Boulevard is referenced within the document in the following context:

- Stockton Boulevard is identified as a major arterial providing connections to the regional freeway system, carrying 20,000-40,000 daily vehicle trips
- Based on 2012 data, the entire corridor operated at Level of Service (LOS) A
 - 47th Avenue operated at LOS E from SR-99 to Stockton Boulevard (this intersection is the southern terminus of the study area)
- The corridor is identified as a city truck route
- Existing bus routes and bicycle facilities are identified within the chapter

Zoning Code of Sacramento County: Stockton Boulevard Special Planning Area, County of Sacramento, 2015

The Sacramento County Board of Directors approved the Stockton Boulevard Special Planning Area to provide flexibility to unincorporated parcels along Stockton Boulevard to redevelop in a way consistent with Broadway/Stockton Urban Design Guide. Consistent with the Urban Design Guide, this Special Area Zone encourages mixed use residential land uses and large lot commercial uses to foster revitalization along the corridor. The code provides a comprehensive review of permitted uses, prohibited land uses, uses requiring additional permits, and detailed development regulations including design guidelines.

Specific to the transportation features of the corridor, the Special Area Zone encourages the reduction of vehicle parking requirements to attract “desirable” businesses, and enhancements to the bicycle and pedestrian connections between commercial uses and surrounding neighborhoods.

Broadway/Stockton Urban Design Plan, County of Sacramento, 1998

This Urban Design Plan provides an integrated framework of principles, policies, and design concepts to revitalize Broadway and Stockton Boulevard into competitive commercial corridors in the region. Separating the two corridors into six distinct sub-areas, sub-area 4 (Medical Center), sub-area 5 (Mid Stockton), and sub-area 6 (South Stockton) are consistent with the scope of this current planning effort.

Key urban design strategies imagined for the corridor include:

- Development of the intersection of Broadway and Stockton to build upon the Medical Center presence by creating a pedestrian friendly environment, facilitating the emergence of supportive commercial services, renovation of the Colonial district and adjacent storefronts, and encourage mixed-use development in surrounding neighborhoods.
- Envisioning Fruitridge and Stockton as a gateway area for an international marketplace that represents diverse commercial uses. Commercial land use in this area was envisioned to be large-lot commercial.

Stockton Fruitridge Neighborhood Opportunity Site: Vision Action Plan, Sacramento Building Healthy Communities Hub, 2016

South Sacramento was selected by the California Endowment as a Building Healthy Communities Initiative site. This funding is intended to improve the health and quality of life of underrepresented communities in California through community outreach to inform redevelopment in partnership with the Sacramento Housing and Redevelopment Agency (SHRA).

The opportunity site was the San Juan Motel located on Stockton between Young Street and Southwest Avenue, a site currently owned by the County. The site was expanded on by the SHRA, which owns seven adjacent parcels, to mimic the area previously planned for via the SHRA's Opportunity for a Sustainable Stockton Boulevard planning effort in 2011. Through this community-based effort, the following issues were identified:

- A need for affordable and/or senior housing that does not bring gentrification.
- Community empowerment via a Purpose Built Model that advocates for high quality mixed-income housing, cradle to college programs, and community wellness resulting in redevelopment that suits the needs of and is guided by the voices of the community.

Sacramento Metropolitan Transportation Plan/Sustainable Communities Strategy, Sacramento Area Council of Governments, 2017

The Sacramento Area Council of Governments developed a Sustainable Communities Strategy (SCS) to establish a roadmap for a more sustainable future that offers residents a high quality of life. The guiding principles of the SCS include:

- Smart land use patterns that focus on infill
- Environmental quality and sustainability by limiting the impacts of transportation on air quality
- Financial stewardship that manages resources for transportation efficiently
- Economic vitality by connection people to jobs
- Access and mobility to provide easy access to jobs, services, and housing.
- Equity and travel choices for people throughout the region

The 2036 transit network projected by this plan identified Stockton Boulevard as an Express Bus Route and references improved funding for transit, maintenance, and active transportation modes.

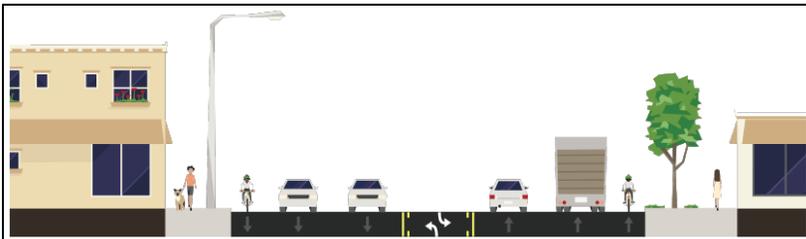
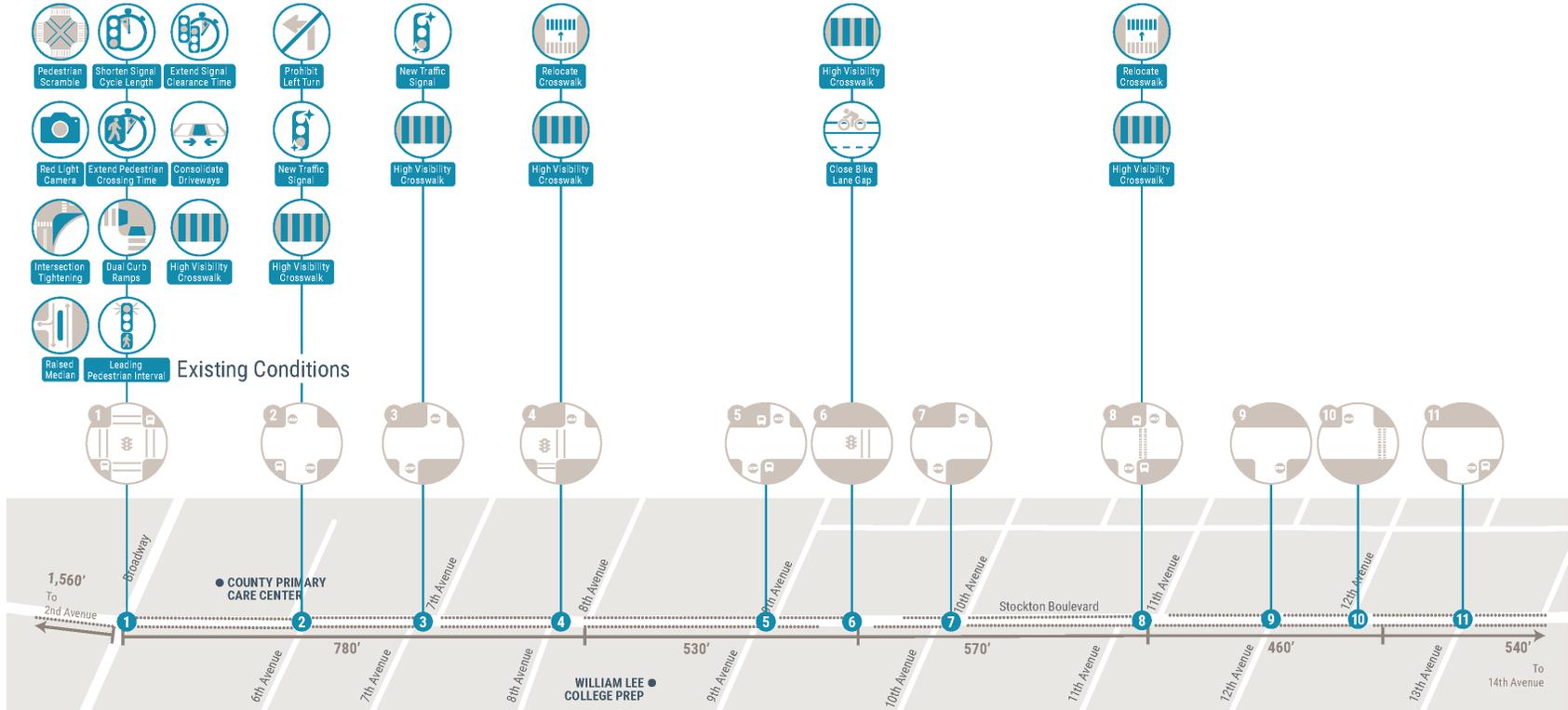
Vision Zero Top Five Corridor Study, City of Sacramento, Expected 2020

In 2017, five corridors were identified as part of Sacramento's Vision Zero effort as containing the highest numbers of crashes resulting in serious injury or death for pedestrians, bicyclists, and

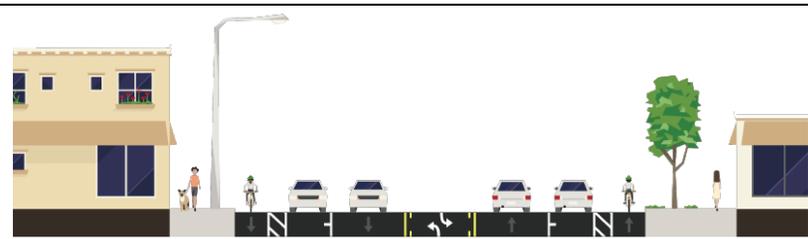
motorists. Following the data driven process for identifying these segments, the study continued to develop specific recommendations to improve safety for City staff to consider as part of future initiatives. Two such segments were identified along the Stockton Corridor, including North Stockton Boulevard (Broadway to 14th Avenue) and South Stockton Boulevard (MacMahon Way to Patterson Drive), visible in Figure 44 and Figure 45 respectively. Potential improvements include, but are not limited to new traffic signals, high visibility crosswalks, extended pedestrian crossing time, improved bicycle lanes, consolidated driveways, and other intersection improvements. As appropriate, opportunities to integrate these proposed improvements into this effort will be identified. Final recommendations for the Vision Zero Top Five Corridor Study are currently being developed and anticipated to be presented to City Council in early 2020.

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Figure 44 DRAFT Vision Zero Top Five Corridor Study Improvements to North Stockton Boulevard



What You See Today

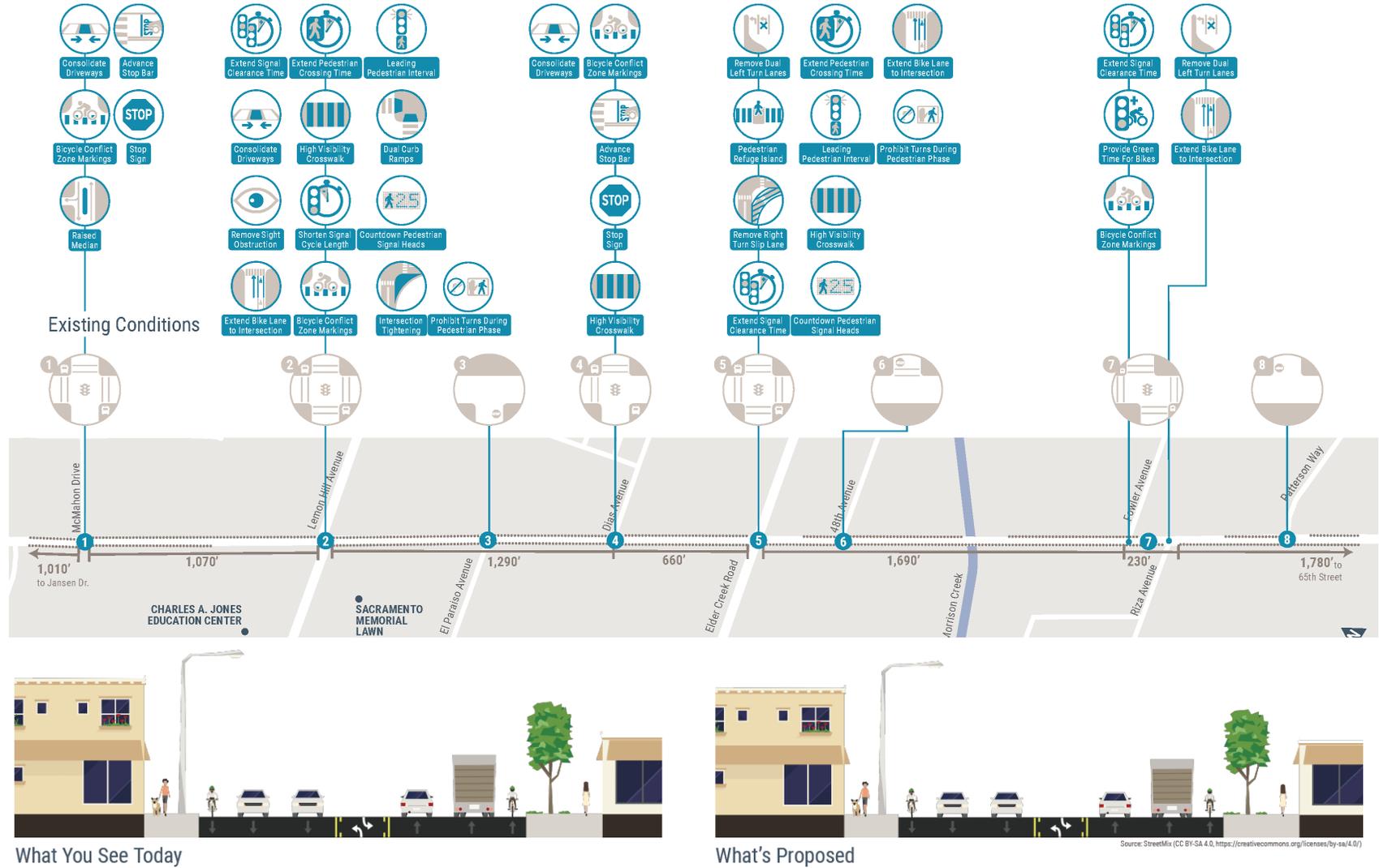


What's Proposed

Source: StreetMixer (CC BY-SA 4.0, <https://creativecommons.org/licenses/by-sa/4.0/>)

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Figure 45 DRAFT Vision Zero Top Five Corridor Study Improvements to South Stockton Boulevard



Vision Zero Sacramento Action Plan, City of Sacramento, 2018

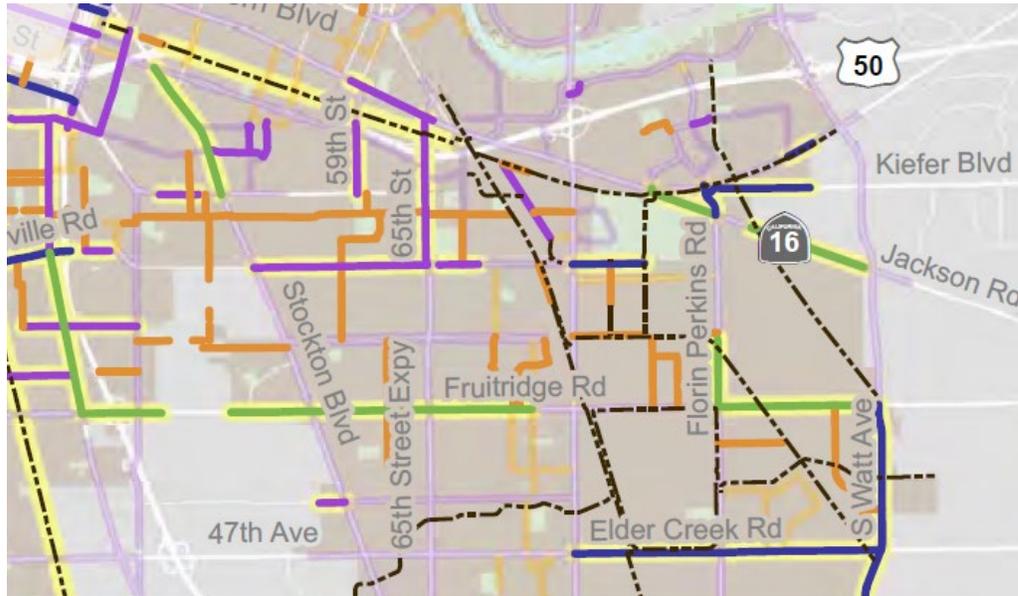
In response to increasing collisions resulting in death or serious injury to people walking or bicycling, the City of Sacramento developed a Vision Zero Action Plan to prioritize safety improvements and make progress towards eliminating all traffic fatalities. The Action Plan identified that 79% of collisions resulting in death or serious injury occurred on 14% of the street network. This targeted network was broken up into individual segments, of which two of the top five most dangerous segments in the city were located along Stockton Boulevard.

City of Sacramento Bicycle Master Plan, City of Sacramento, 2018

The City of Sacramento’s Bicycle Master Plan provides a blueprint for developing a bicycle network that is safe and accessible for residents of all ages and abilities. Key recommendations impacting this effort include the following:

- A separated bikeway through the UC Davis campus between T Street and Broadway along Stockton Boulevard. This project is identified as a short-term priority but does require further study.
- East/west running bicycle facilities along 8th Avenue, 14th Avenue, and Fruitridge Road, which would provide much needed connectivity to the network. However, Facilities on 14th Avenue and Fruitridge Road require further analysis.

Figure 46 Vision Zero Action Plan Improvements to South Stockton Boulevard



Proposed Facilities

- Trail
- Bike Lane
- Bike Route
- Separated Bikeway
- Buffered Bike Lane
- Projects Requiring Additional Study

Existing Bicycle Facilities

- Bike Route
- Bike Lane
- Bike Trail

White box covering "Lane" in legend is an issue in the published BMP

ONGOING EFFORTS

There are multiple planning efforts underway in or near the study area. These include:

- **SacRT Forward:** On September 8th, 2019, SacRT will roll out service changes. Services are in the process of being restructured based on data analysis and community input and will result in a system that better serves the needs of the community with improved connectivity and frequency. No changes are planned to Route 51, the line serving Stockton Boulevard from Broadway to Florin Town Center.
- **SacRT High Capacity Bus Corridor Study:** SacRT is currently studying feasibility for high capacity transit services with features such as dedicated bus lanes, increased frequency, and real-time data. The system's busiest line, Route 51, runs along Stockton Boulevard, and is likely to be a target for such service improvements.
- **Vision Zero Top Five Corridor Study:** In 2017, Sacramento's Vision Zero Action Plan identified the five corridors with the highest number of crashes resulting in death or serious injuries involving pedestrians, bicyclists, and motorists. Two of these corridor sections (Broadway to 14th Avenue and McMahon Drive to Fowler Avenue) are within or touch the bounds of the Stockton Boulevard Corridor Study.
- **SACOG Civic Labs:** The Sacramento Area Council of Governments (SACOG) is working with local agencies to develop creative solutions for addressing smart mobility along commercial corridors through the Civic Labs program. The Stockton Boulevard Partnership is leading a study under this program to investigate housing solutions along Stockton Boulevard between 22nd Avenue and Jansen Drive.
- **Envision Broadway in Oak Park:** This effort is developing complete streets solutions on Broadway between Franklin Boulevard and Martin Luther King Jr. Boulevard (Broadway crosses Stockton Boulevard).
- **Aggie Square:** Spearheaded by UC Davis, the Aggie Square development is situated at the northern end of Stockton Boulevard. This development will introduce significant space for research workspace, housing, and commercial land uses. The full buildout will stretch from 2nd Avenue to Broadway. UC Davis is currently gathering developer qualifications for construction of Phase I.
- **School Zone Speed Limit Reductions:** Recent legislation enabled speed limit reductions from 25 mph to 15 mph in 115 school zones. There are no schools located directly on Stockton Boulevard, but there are several within a half-mile of the corridor.

STREET STANDARDS

This section identifies the street design standards applicable to the study area, classified as an Other Principal Arterial with four lanes plus a center turn lane. A summary of criteria is shown in Figure 48. The following documents were consulted:

City Street Design Standards, City of Sacramento

Sacramento’s street design standards are documented in Section 15 of the city’s codes, adopted July 2009. The standards define the basic geometric design criteria for roadways under City jurisdiction based on functional classification, design speed, and Average Daily Traffic (ADT).

Sacramento County Street Design Standards, County of Sacramento

A portion of the corridor is owned by Sacramento County. Sacramento County has its own design standards, last updated April 2018. These engineering design standards address required widths of street elements by road classification. Sacramento County defines Stockton Boulevard as an Arterial roadway.

Pedestrian Crossing Guidelines, City of Sacramento

In 2014, the City of Sacramento developed a comprehensive, research-based set of criteria to clearly define the type and location of allowable crossings of its facilities. This document establishes flowchart-based criteria for establishing unsignalized and signalized mid-block pedestrian crossings (Figure 47).

As of September 2019, the City of Sacramento is in the process of updating the Pedestrian Crossing Guidelines.

Figure 47 Pedestrian Crossing Decision-making at Uncontrolled Locations

Exhibit 3: Recommendations for Installing Marked Crosswalks and Other Needed Pedestrian Improvements at Uncontrolled Locations
(Adapted from FHWA⁽⁹⁾)
(Sheet 1 of 2)

	≤ 9,000 ADT				> 9,000 ADT to ≤ 12,000 ADT				> 12,000 to ≤ 15,000 ADT				> 15,000 ADT			
	≤ 30 mph	35 mph	40 mph	≥ 45 mph	≤ 30 mph	35 mph	40 mph	≥ 45 mph	≤ 30 mph	35 mph	40 mph	≥ 45 mph	≤ 30 mph	35 mph	40 mph	≥ 45 mph
2 Lanes	C	C	P	N	C	C	P	N	C	C	P	N	C	P	N	N
3 Lanes	C	C	P	N	C	P	P	N	P	P	P	N	P	N	N	N
4 or More Lanes with Raised Median	C	C	P	N	C	P	N	N	P	P	N	N	N	N	N	N [*]
4 or More Lanes No Raised Median	C	P	N	N	P	P	N	N	N	N	N	N [*]	N	N	N	N [*]

- C Candidate sites for marked crosswalks.
- P Possible candidate sites for marked crosswalks. Possible increase in pedestrian crash risk may occur if marked crosswalks are added without other pedestrian facility enhancements. These locations should be enhanced with other pedestrian crossing improvements, before adding a marked crosswalk; refer to Note (9) below for further information.
- N Marked crosswalks alone are insufficient, since pedestrian crash risk may be increased due to providing marked crosswalks alone. These locations should be enhanced with substantial treatments, such as traffic signals with pedestrian signals where warranted, or other substantial crossing improvement to improve crossing safety for pedestrians; refer to Note (9) below for further information.
- * CAMUTCD 2012 suggests new marked crosswalks alone, without other measures, should not be installed.

Based on the criteria in Figure 47, the designer can determine when existing uncontrolled crossing locations on a corridor should be re-evaluated for enhancement. This includes projects that involve change in roadway characteristics and/or pedestrian safety related concerns

identified during the course of any traffic investigation (Section 6.2). Stockton Boulevard has a posted speed of 35-40 mph and ADT above 15,000, meaning marked crosswalks alone are insufficient.

SacRT Transit Design Guidelines

SacRT routes run along and across Stockton Boulevard. SacRT’s design guidelines address bus facilities as well as stop location and walking and bicycle facilities accessing bus stops. These guidelines recommend 8’ sidewalk widths at stops that are anticipated to have higher pedestrian volumes, exceeding the 5’ minimum set forth by the Sacramento City Street Standards.

California Supplement to the MUTCD (CA MUTCD)

The 2014 edition of the CA MUTCD contains guidance relating to the striping of roadways, intersections, and light rail crossings. It also contains signal and pedestrian crossing design guidance. The CA MUTCD is referenced in cases where no local governing criteria exist, or local criteria cite the CA MUTCD.

Summary of Corridor Criteria

The table below summarizes the criteria established by the above documents to provide a basis for future design work along Stockton Boulevard.

Figure 48 Design Criteria

Element	Criteria	Source
General Traffic		
Through Lane Width	11' Minimum (City) 11' Outside Lane, 12' Inside Lane (County)	City Street Design Standards 15.6.7 County Street Standards Fig. 4-10 and 4-12
Left Turn Lane Width	11' Minimum (City) 10' Minimum, 10' + 10' Minimum for dual left turns (County)	City Street Design Standards 15.6.7 County Street Standards Fig. 4-12
Right Turn Lane Width	14' Preferred, 11' Minimum (City) 15' Preferred, 10' Minimum with separated bicycle lane (County)	City Street Design Standards 15.6.7, Plate 15-11 County Street Standards Fig. 4-10 and 4-12
Left Turn Lane Taper Length	90' reverse-curve (120' min. radius) (City) 50' reverse-curve at Collectors, 250' for dual lefts (County)	City Street Design Standards Plate 15-11 County Street Standards Fig. 4-11 and 4-12
Right Turn Lane Taper Length	50' straight-line (City) 250' straight-line at major arterials (County)	City Street Design Standards Plate 15-11 County Street Standards Fig. 4-11 and 4-12

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Element	Criteria	Source
Through Lane Taper Length	WS ² /60 for under 45 MPH, 100' minimum in urban areas	CAMUTCD Chapter 3B
Lane Offset Across Intersection	1' shown in design standards (City)	City Street Design Standards Plate 15-11
Raised Median Width	2' Minimum at intersections (City) 2' Minimum at intersections set back 5' from crosswalk, major street intersections only (County)	City Street Design Standards 15.7.8 County Street Standards 4-12
U-Turns	44' Clear Width from right side of left turn lane required (City and County)	City Street Design Standards 15.7.2 County Street Standards 4-3.F
Sight Distance at Intersections	Conform to Caltrans HDM 201 and 405 (City) Conform to Figure 4-18 for controlled intersections. Conform to County Section 4-15 for uncontrolled intersections. (County)	City Street Design Standards 15.9 County Street Standards Fig. 4-18, Section 4-15
On-Street Parking	Permissibility varies by ADT. On-street parking is not allowed if ADT is 14,000-24,000. Stockton Boulevard ADT is 16,874-29,877. 7' width including gutter. (City) County does not indicate parking allowed or disallowed on arterials.	City Street Design Standards Table 15-13.1
Access Control	No single-family driveways permitted. Minimum 250' spacing between driveways (City) Minimum spacing of 150' between driveways and no closer than 125' to intersection corner returns (County)	City Street Design Standards Plate 15-1 County Street Standards 4-11.I, Q
Bicycle Facilities		
Bicycle Lane Width	6' Minimum required on all street segments, minimum 3' of asphalt adjacent to curb and gutter, 4' minimum at expanded intersections (City) 5' Minimum exclusive of curb and gutter (County)	City Street Design Standards 15.6.7, 15.7.6 County Street Standards Fig. 4-12
Type of Bicycle Facility	Buffered Bike Lane (segments with ADT up to approx. 20,000) Separated Bikeway (segments with ADT above approx. 20,000)	Sacramento Bike Master Plan pg. 41

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Element	Criteria	Source
	(ADT on Stockton Boulevard is 16,874-29,877)	
Pedestrian Facilities		
Sidewalk Width	6' Minimum for arterials, 5' minimum all other roadways (City)	City Street Design Standards 15.6.7
	5' Minimum except at schools, hospitals, and pedestrian districts- then 8' minimum (County)	County Street Standards Fig. 4-2
	8' at high pedestrian and transit passenger volume areas (SacRT)	SacRT Design Standards Fig. 8-1 and 8-2
Crosswalk Width	12' wide with 10' inside clear space at controlled intersections. Uncontrolled intersections- use high-visibility crosswalk markings.	City Street Design Standards 15.8.3
Planter Widths	7'-10" not inclusive of curb width (arterials), 5'-10" not inclusive of curb width (collectors) (City)	City Street Design Standards Plate 15-11
	8' not inclusive of curb width (arterials), 6' not inclusive of curb width (other roadways with separated sidewalks) (County)	County Street Standards Fig. 4-1 and 4.2
Stop Bar at Expanded Intersections	7' from crosswalk (City)	City Street Design Standards Plate 15-11
	Not shown in advance of crosswalk (County)	County Street Standards Fig. 4-10
Curb Ramps	Required per 15.15 at T intersections in high pedestrian use areas. Must construct receiving ramps. Dual ramps required at all intersections. (City)	City Street Design Standards Table 15.15, Plate 15-11 Footnote 3
	Required at all intersections. Dual ramps required. Resurfacing in any portion of an intersection triggers ADA ramp modifications. (County)	County Street Design Standards Section 4-18
Crosswalk Locations and Treatments	Vary based on pedestrian crossing flowchart (City)	City of Sacramento Pedestrian Crossing Guidelines
	All mid-block crossings to be signalized. All unsignalized intersection crossings to be striped	County Street Design Standards Section 4-36

STOCKTON BOULEVARD CORRIDOR STUDY | EXISTING CONDITIONS
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Element	Criteria	Source
	to be subject to approval of the Director of the Department of Transportation (County)	
Transit Facilities		
Bus Stop Pads/Turnouts	Minimum Pad Length = 96 inches, Minimum Pad Width = 60 inches (City) Minimum Turnout Length = 125' with 65' entry taper, 100' exit taper Minimum Turnout Width = 7' with 5' bike lane (County) Minimum Turnout Length = 125' with 60' entry taper and 60' exit taper at mid-block, or 65' entry taper, 100' exit taper at intersections (SacRT)	City Street Design Standards Table 15.18 County Street Design Standards Fig. 4-10 SacRT Design Guidelines Fig. 8-1 and 8-2
Curb Return Radii on a Bus Route	Bus turning into two lanes: 30' minimum Bus turning into a single lane: 50' minimum Bus turning into two lanes with parking: 20' minimum	SacRT Design Guidelines Figure 3-4
Exclusive bus lane dimensions	12' wide (minimum) by 200' long (minimum)	SacRT Design Guidelines Figure 5-1

TRANSIT PROPENSITY

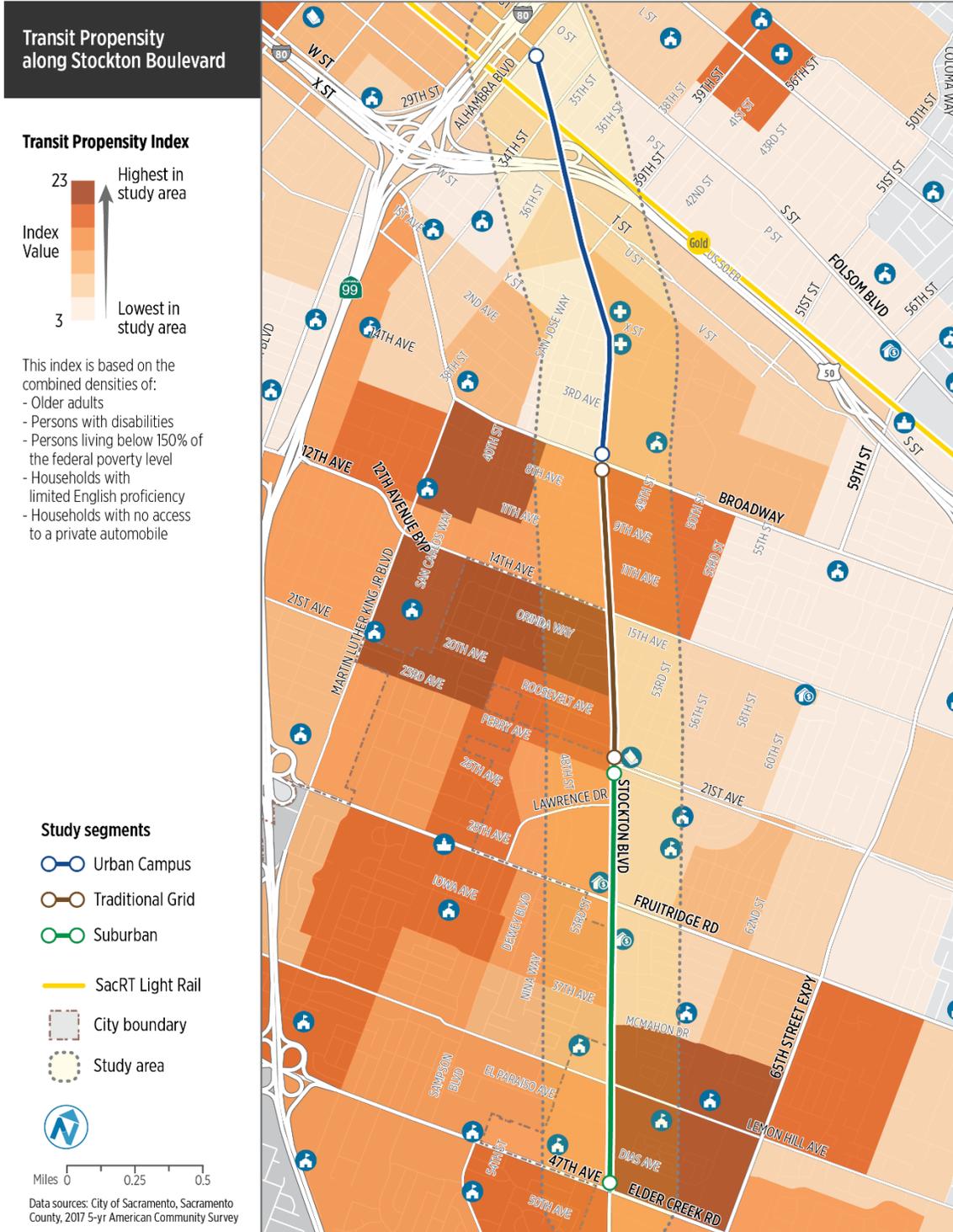
People with certain demographic and socioeconomic characteristics tend to rely upon public transportation for mobility. An analysis of densities of people with these characteristics is called a Transit Propensity Index. Census blocks were used to calculate the densities of several populations who tend to use transit more often than the general population, including:

- Older adults
- Persons with disabilities
- Persons living below 150% of the federal poverty level
- Households with limited English proficiency
- Households with no access to a private automobile.

The pockets of highest transit propensity are found along the west side of the Traditional Grid segment, and along the eastern side of the Suburban segment between McMahon Drive and Elder Creek Road.

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Figure 49 Transit Propensity Index



TRAVELING THE CORRIDOR – WALKING

Trees

Street trees make the street environment more welcoming to people walking and bicycling, as Figure 50 shows with samples along Stockton Boulevard. Tree distribution along the corridor is greatest along the Suburban segment, with 150 trees per mile, and lowest along the Urban Campus segment, with 122 trees per mile (Figure 51). Trees on private property are not shown.

The benefits of street trees generally increase with tree age and size. As shown in Figure 51, larger older-growth trees are concentrated in the Urban Campus segment near the UC Davis Medical campus, and along the northern end of the Traditional Grid segment. While the concentration of trees is highest in the Suburban segment, tree size is generally much smaller

Figure 50 Snapshot of Street Trees Along Stockton Boulevard



Urban Campus



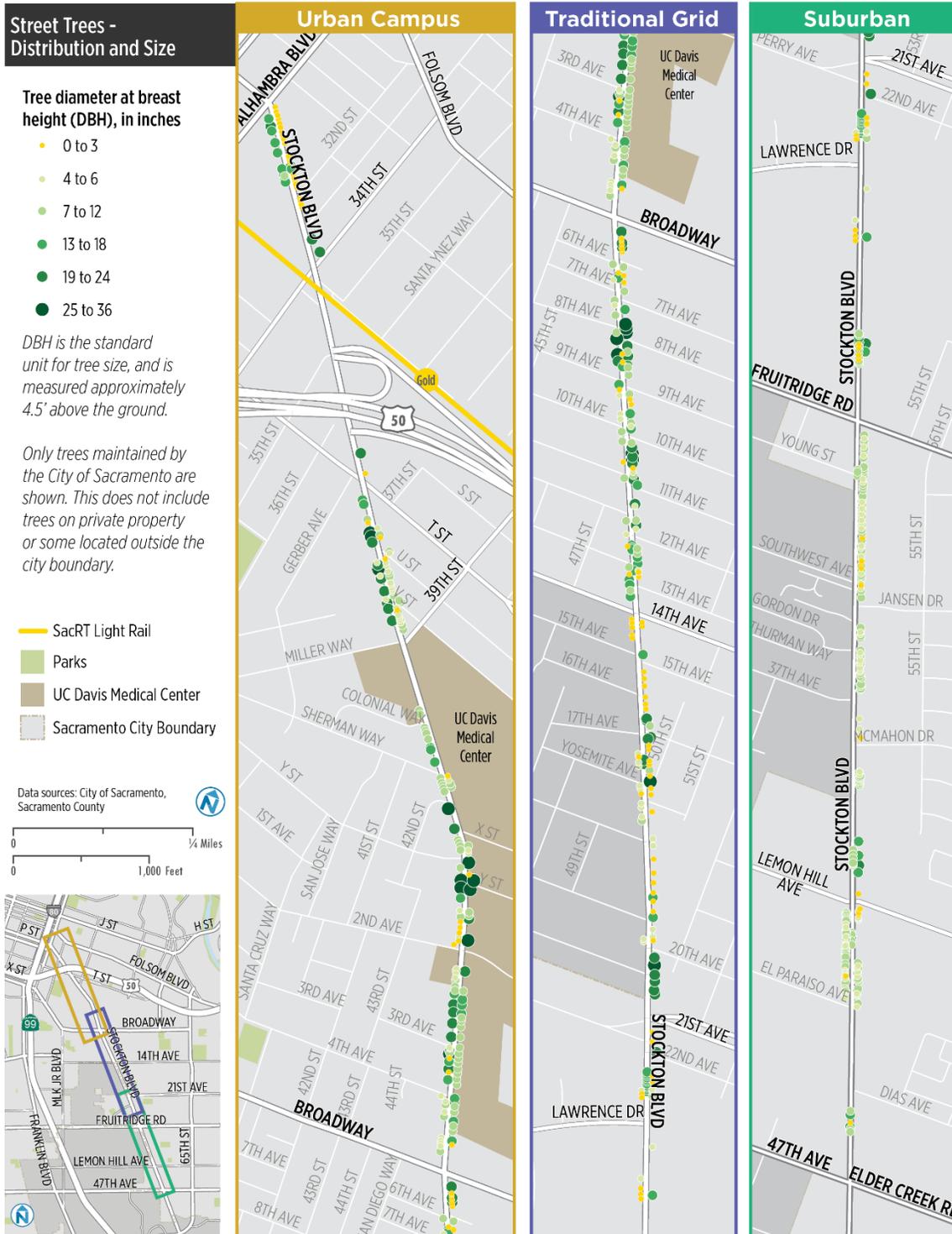
Traditional Grid



Suburban Section

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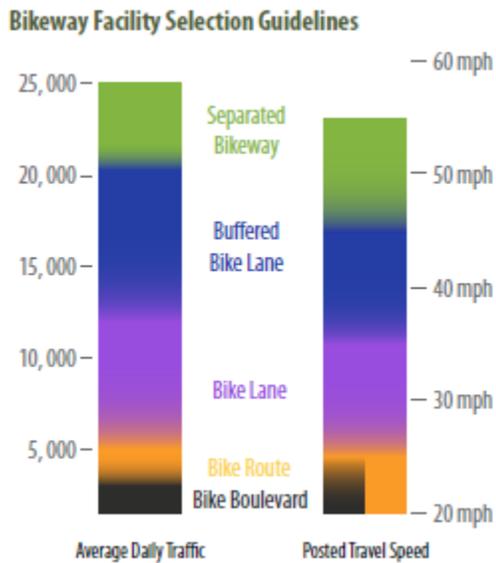
Figure 51 Street Trees Along Stockton Boulevard



TRAVELING THE CORRIDOR – BICYCLING

The Bicycle Master Plan defines the desired facility on roadways according to travel speed and ADT. These criteria were established to “provide staff a framework to implement low stress bikeways that are comfortable for all ages and abilities.”

Figure 52 Sacramento Bikeway Facility Selection Guidance



The criteria laid out by this plan are not currently reflected in Sacramento’s City Street Design Standards, nor the County Street Standards. The cross sections in that plan show only striped on-street bicycle facilities and cite them as a minimum. The facility selection criteria are also not in line with national guidance from the National Association of City Transportation Officials (NACTO) for creating bike networks that are suitable for all ages and abilities, which advises levels of bicycle facility protection and separation based on lower ADT and speed thresholds (Figure 53). For example, according to the Sacramento facility selection guidance, a buffered bike lane is appropriate on a roadway with 12,500 ADT posted at 35 mph, while NACTO recommends a protected bike lane on streets with multiple lanes where ADT is greater than 6,000.

Figure 53 NACTO – Contextual Guidance for Selecting All Ages and Abilities Bikeways

Roadway Context				All Ages & Abilities Bicycle Facility
Target Motor Vehicle Speed	Target Motor Vehicle Volume (ADT)	Motor Vehicle Lanes	Key Operational Considerations	
Any		Any	Any of the following: high curbside activity, frequent buses, motor vehicle congestion, or turning conflicts [‡]	Protected Bicycle Lane
< 10 mph	Less relevant	No centerline, or single lane one-way	Pedestrians share the roadway	Shared Street
≤ 20 mph	≤ 1,000 – 2,000		< 50 motor vehicles per hour in the peak direction at peak hour	Bicycle Boulevard
≤ 25 mph	≤ 500 – 1,500	Single lane each direction, or single lane one-way	Low curbside activity, or low congestion pressure	Conventional or Buffered Bicycle Lane, or Protected Bicycle Lane
	≤ 1,500 – 3,000			Buffered or Protected Bicycle Lane
	≤ 3,000 – 6,000			Protected Bicycle Lane
	Greater than 6,000			Protected Bicycle Lane
Greater than 26 mph [†]	≤ 6,000	Single lane each direction	Low curbside activity, or low congestion pressure	Protected Bicycle Lane, or Reduce Speed
		Multiple lanes per direction		Protected Bicycle Lane, or Reduce to Single Lane & Reduce Speed
	Greater than 6,000	Any	Any	Protected Bicycle Lane
High-speed limited access roadways, natural corridors, or geographic edge conditions with limited conflicts		Any	High pedestrian volume	Bike Path with Separate Walkway or Protected Bicycle Lane
			Low pedestrian volume	Shared-Use Path or Protected Bicycle Lane

Source: NACTO

JUMP, a dockless scooter and electric bicycle sharing platform, and Lime, a dockless scooter company, launched shared mobility service in Sacramento in May 2018. The service area includes the entire study corridor north of Lemon Hill Avenue. It is expected that three additional service providers will serve the community during Fall 2019.

According to a study released by Uber, the number of JUMP bike trips in Sacramento surpassed the number of Uber trips within six months of the initial launch.³ The increasing use of this service demonstrates that e-bikes offer a viable alternative to automobile travel. Initially launched with just a few hundred bikes, today there are more than 1,000 bikes and scooters in the Sacramento service area.

³ <https://medium.com/@jumpbikes/a-case-study-a-collaborative-approach-with-sacramento-9d96b356307>

Count data compiled in Appendix E shows the most popular places along the corridor to cross Stockton Boulevard are at T Street and 2nd Avenue. Over 35 bikes were observed crossing Stockton Boulevard at T street, possibly because there are bike lanes on the east side of Stockton and T street provides a way travel under the highway. Just over 20 bicyclists were observed crossing 2nd Avenue.

In addition, bicyclists very rarely turned off or on to Stockton Boulevard, even at the most popular intersections to cross Stockton (T Street and 2nd Avenue). For a detailed look at bike volumes, please see Appendix E.

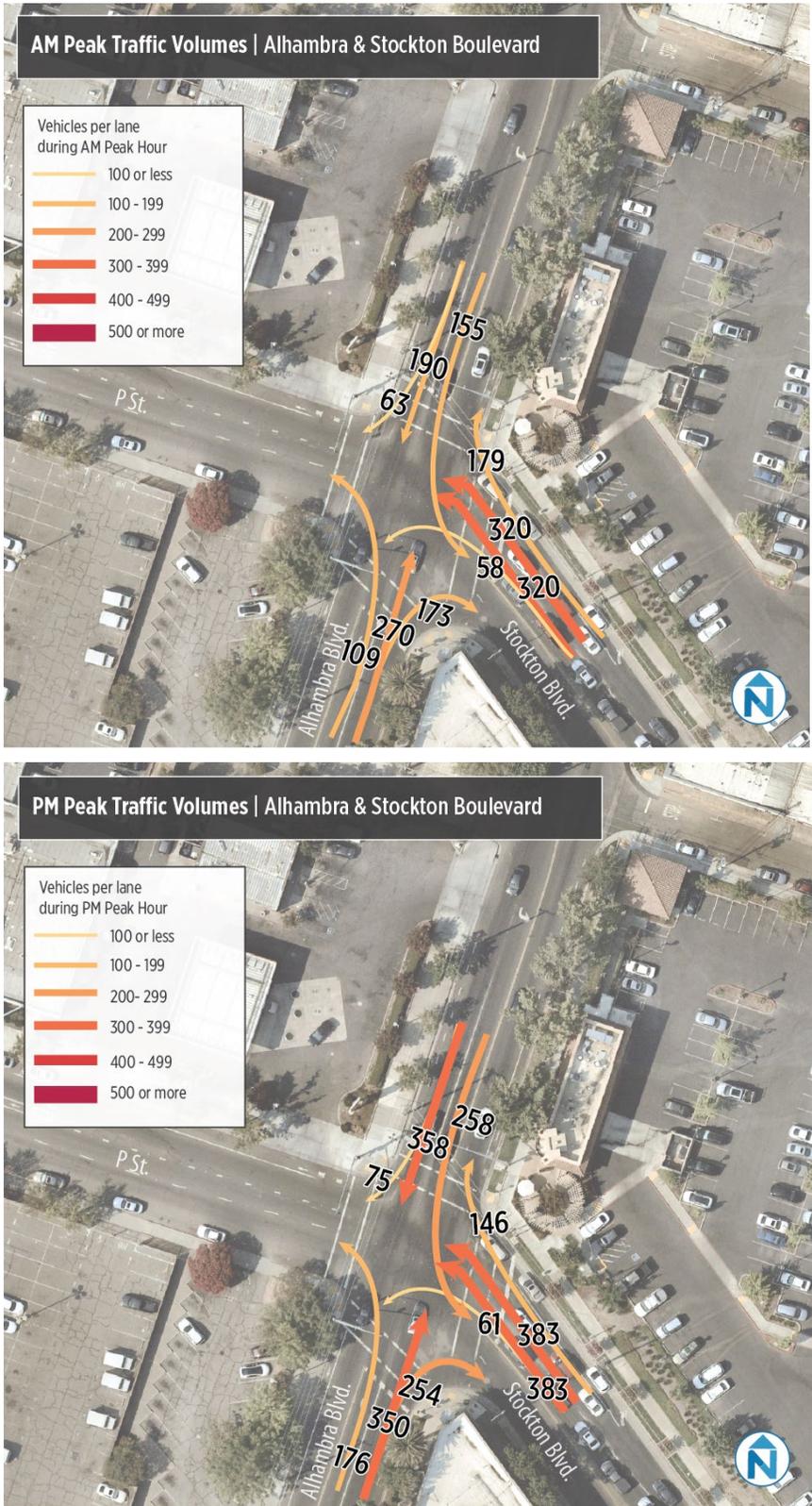
TRAVELING THE CORRIDOR – DRIVING

The following figures map AM and PM vehicle counts at several key locations and correlate line thickness to traffic volumes per lane and per movement. Through traffic volumes were split evenly amongst the number of lanes available as an exercise in determining usage per lane. All traffic counts can be found in Appendix E.

Generally, one vehicle lane can carry anywhere from 800-1,200 vehicles per lane per hour depending on signal spacing, posted speed, and signal phasing.

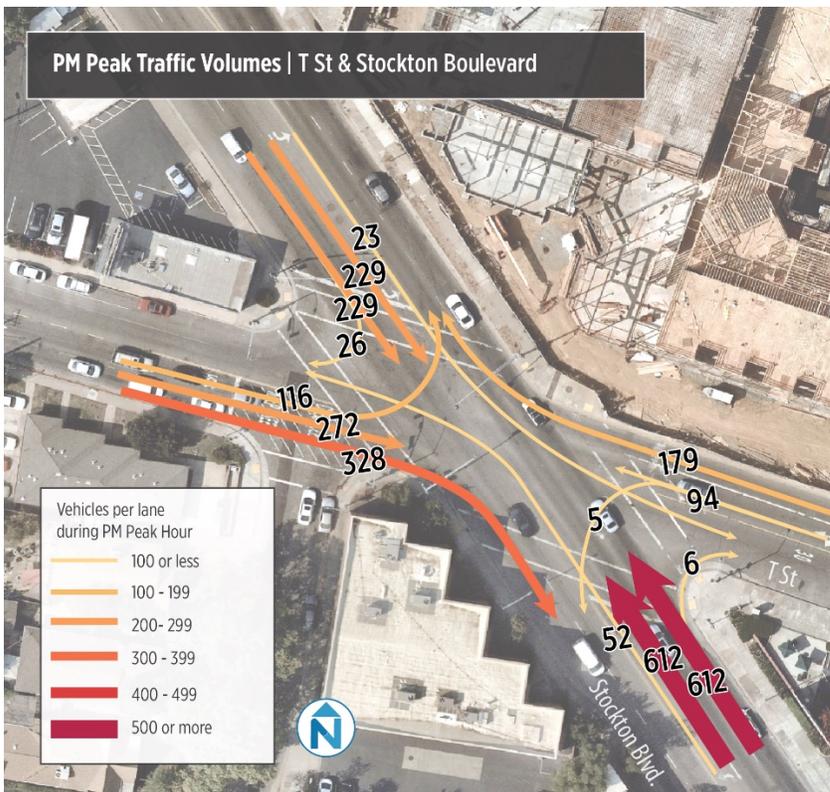
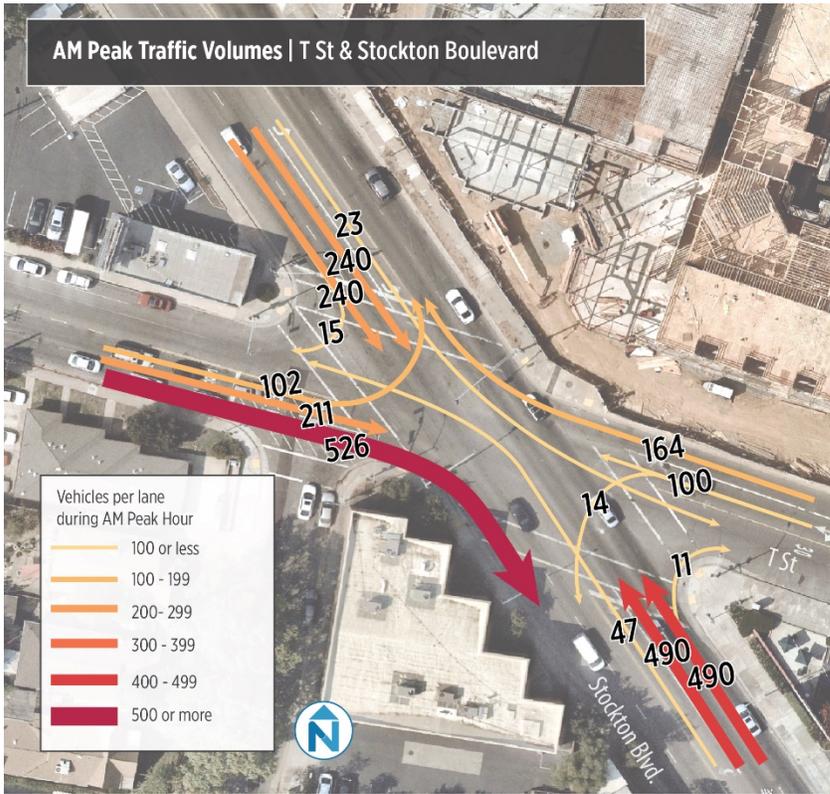
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Figure 54 Volumes by Lane at Alhambra Blvd, AM and PM Peak Hours



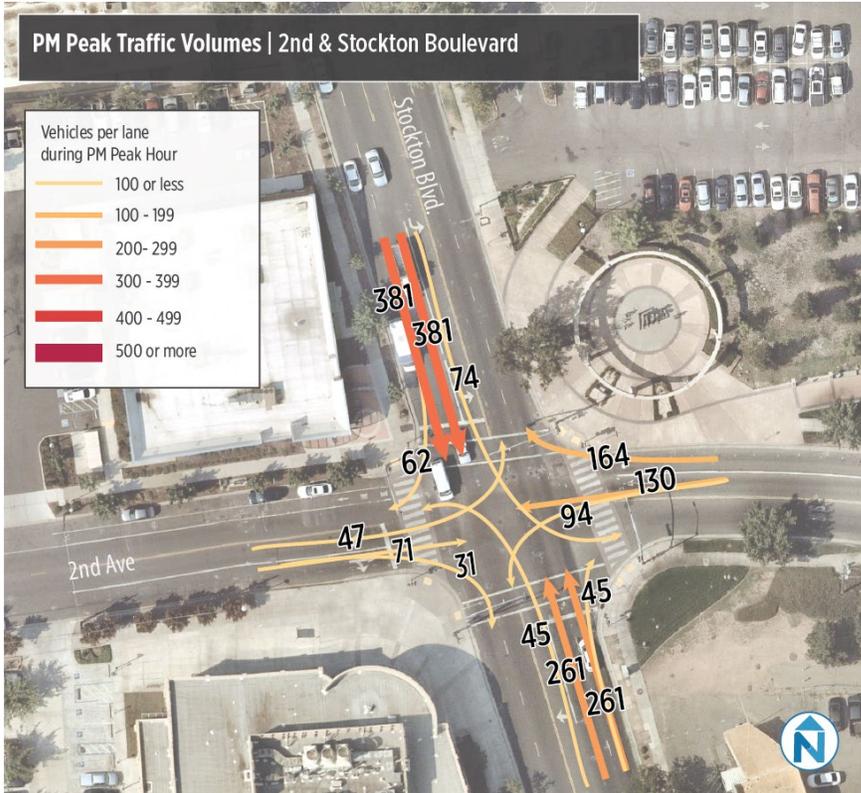
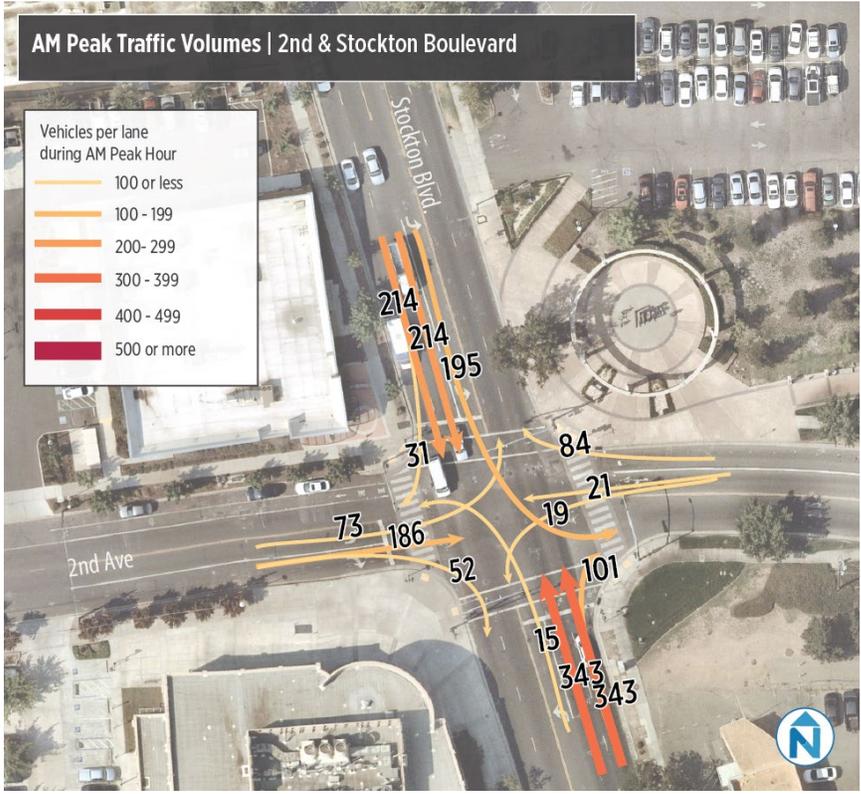
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Figure 55 Volumes by Lane at T Street, AM and PM Peak Hours



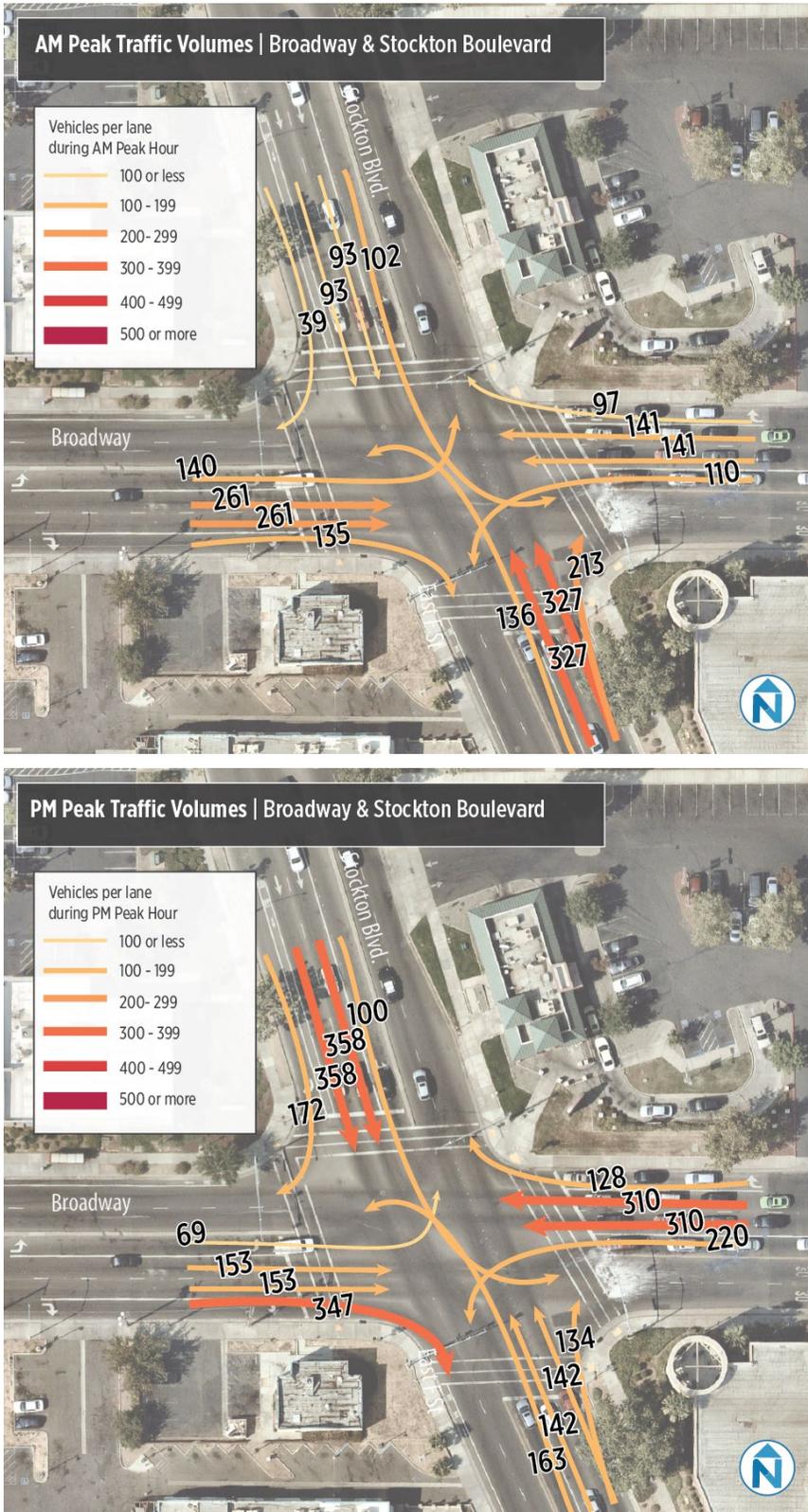
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Figure 56 Volumes by Lane at 2nd Avenue, AM and PM Peak Hours



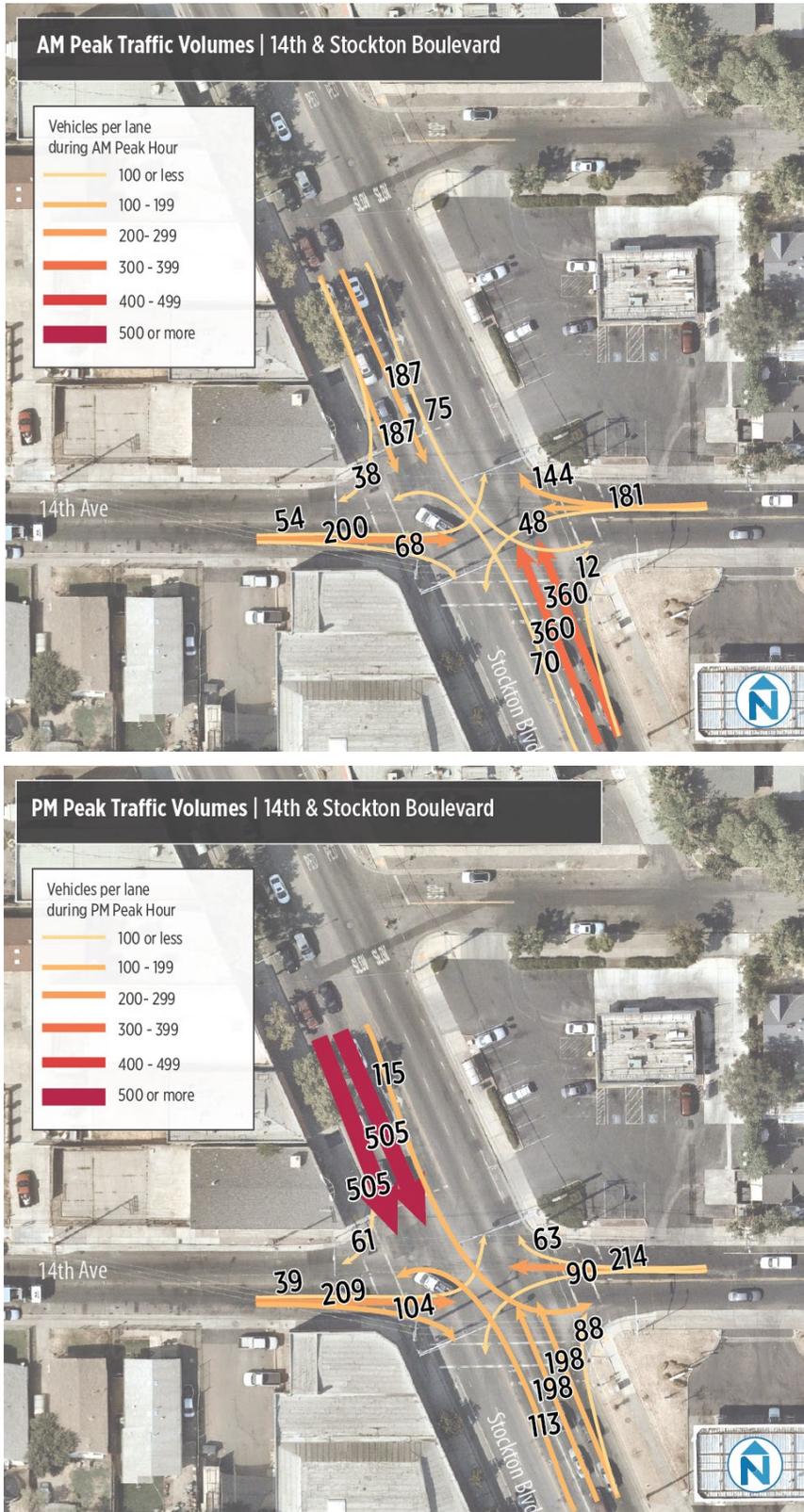
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Figure 57 Volumes by Lane at Broadway, AM and PM Peak Hours



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Figure 58 Volumes by Lane at 14th Avenue, AM and PM Peak Hours



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Figure 59 Volumes by Lane at Fruitridge Road, AM and PM Peak Hour

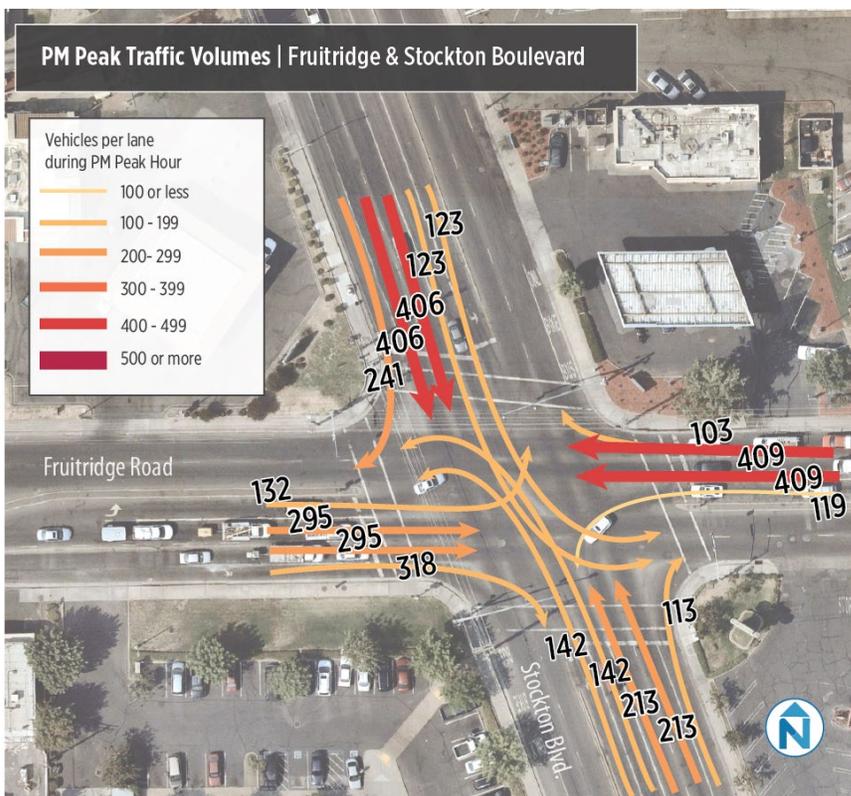
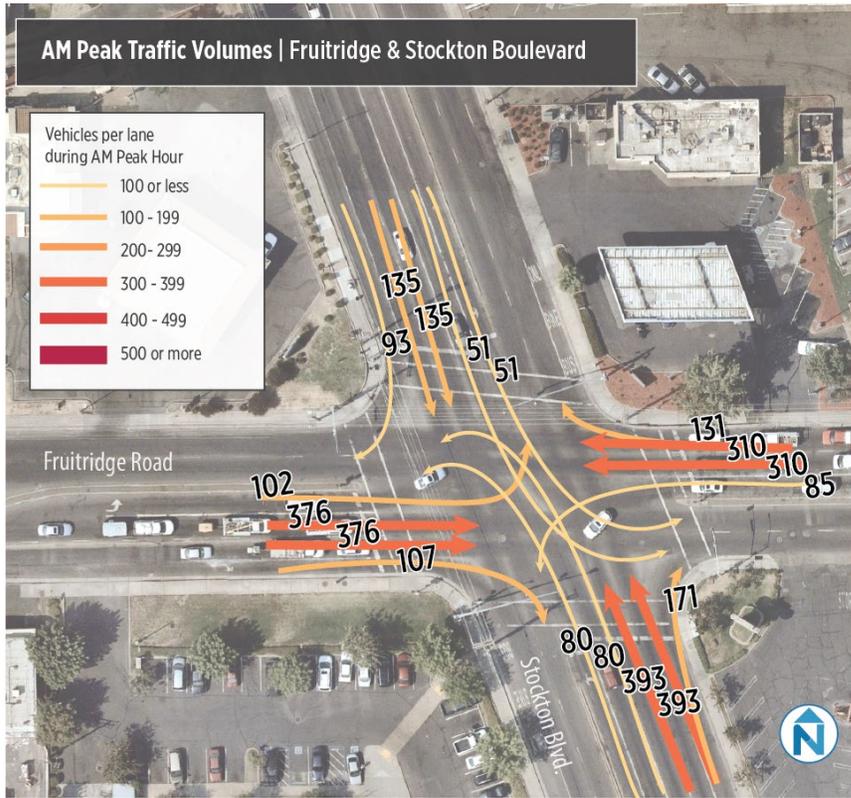
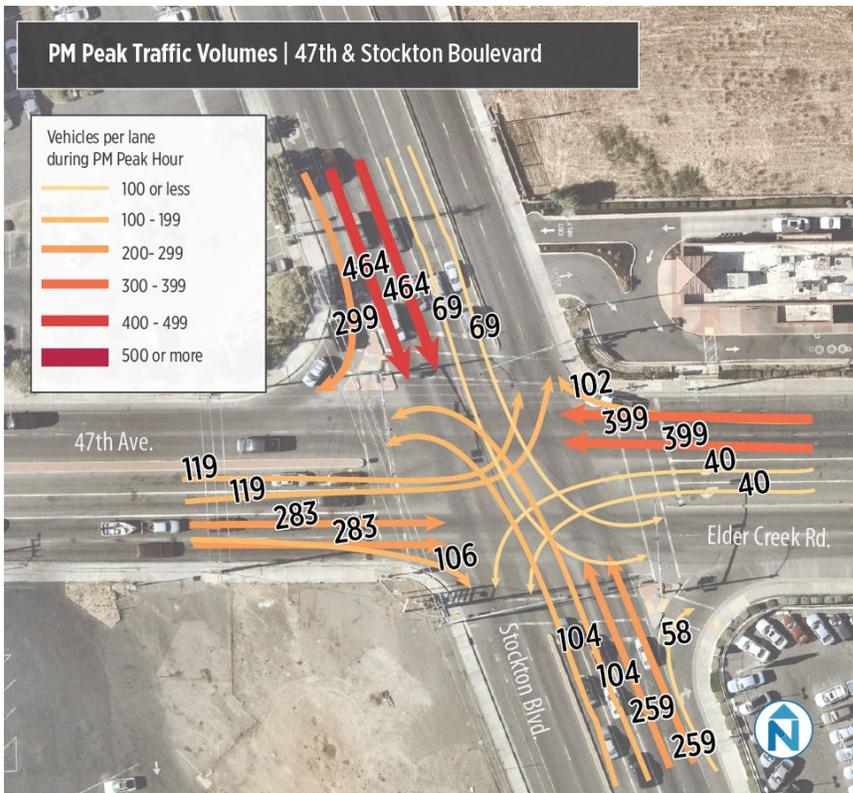
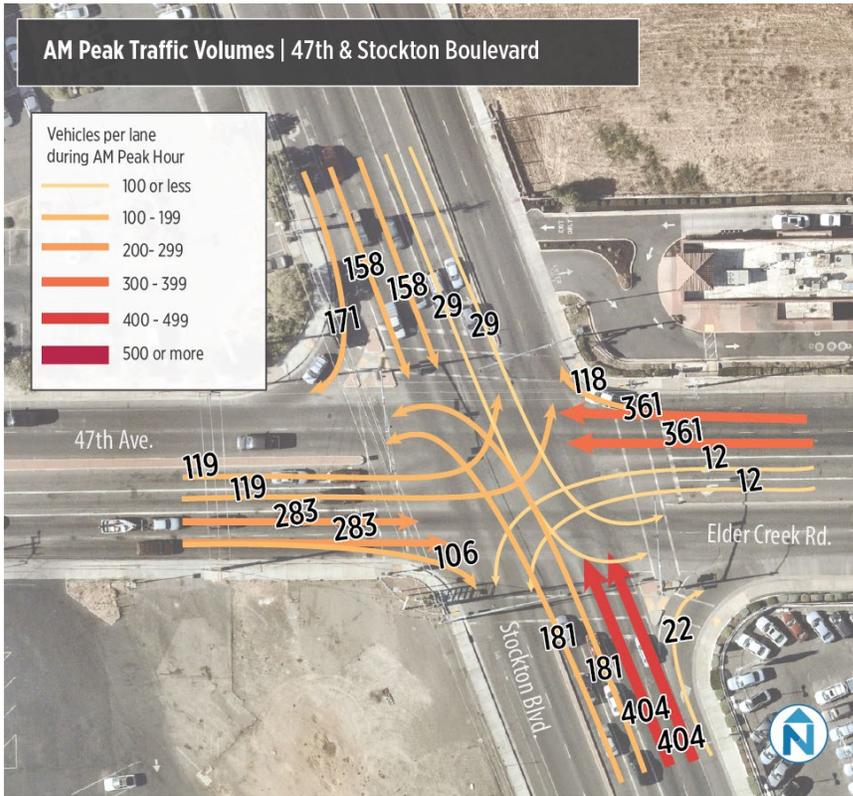


Figure 60 Volumes by Lane at 47th Avenue, AM and PM Peak Hour



SAFETY

Methodology

This corridor collision analysis examines crashes using the most recent five years of collision data (2014-2018) available from the Statewide Integrated Traffic Records System (SWITRS). The dataset includes all reported collisions that resulted in a bicycle, pedestrian, or motorist injury. During the five-year span, a total of 46 pedestrian- and 53 bicycle-involved collisions and 261 automobile-only collisions were reported, all of which resulted in varying levels of injury.

Automobile-Only Collisions

The number of automobile-only collisions increased between 2014 and 2016 and decreased in 2017 and 2018. As shown in Figure 61, one collision resulted in fatality (2017).

Figure 61 Automobile Only Collisions by Severity (2014-2018)

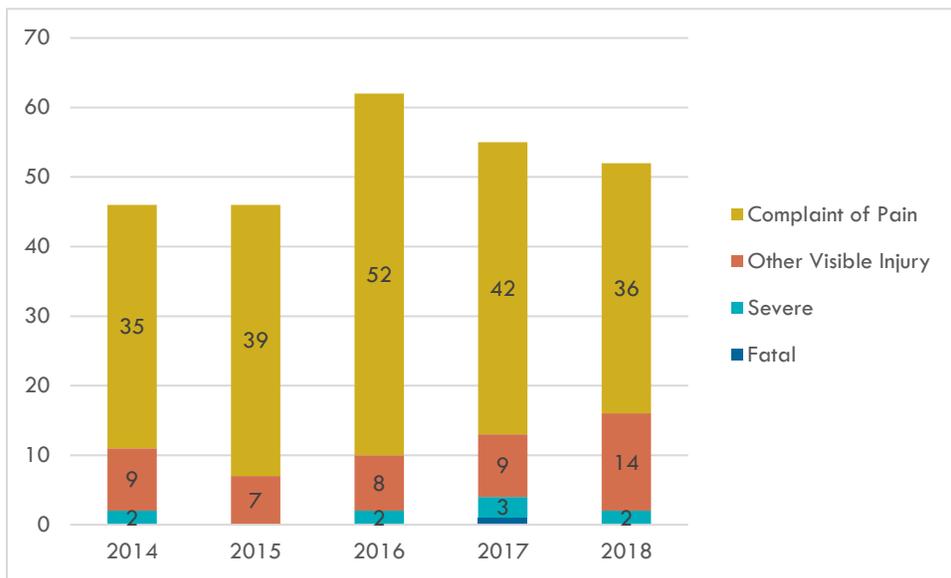


Figure 62 illustrates the density and location of automobile-only collisions. Collisions are concentrated at Fruitridge Road, Lemon Hill Avenue, Dias Avenue, and 47th Avenue; all are signalized intersections.

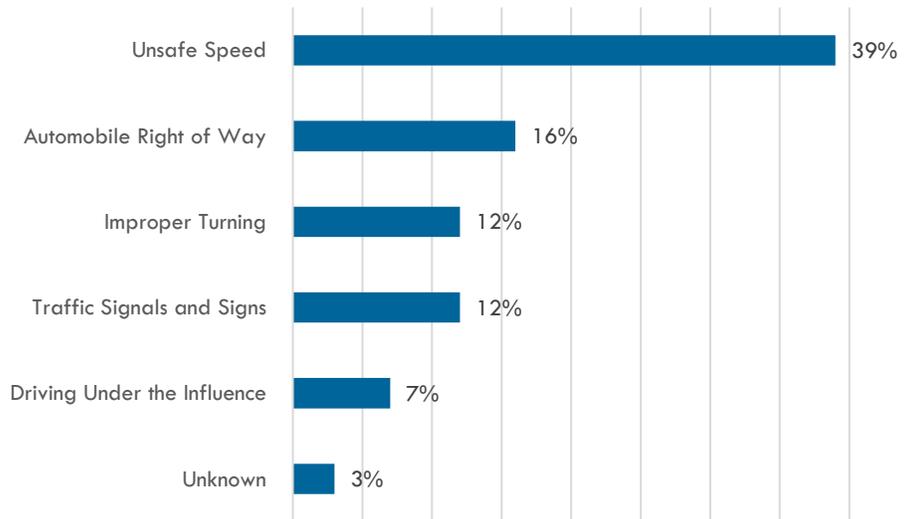
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Figure 62 Collisions – Automobile Only



Figure 63 shows the top five factors⁴ that led to automobile-only collisions. The most common factor for these collisions was “unsafe speed,” which typically refers to a situation in which a driver was driving faster than was reasonable. “Automobile right of way” referring to incorrectly encroaching on a vehicles right of way such as when entering an intersection, was the second most common factor, accounting for 16% of automobile-only collisions.

Figure 63 Automobile-Only Collisions by Severity (2014-2018)



Source: SWITRS

⁴ SWITRS classifies each collision according to its primary collision factor (PCF). PCFs are general categories and can be defined as “the one element or driving action which, in the officer’s opinion, best describes the primary or main cause of the collision.”

Pedestrian-Involved Collisions

The number of pedestrian-involved collisions has increased over time between 2014 and 2018. As shown in Figure 64, the highest number of collisions occurred in 2016.

Although most of the pedestrian-involved collisions were not severe, a total of three collisions resulted in fatalities (5.6%). More than 1 in 4 pedestrian-involved collisions resulted in either a severe or fatal injury (26%).

Figure 64 Pedestrian-Involved Collisions by Severity (2014-2018)

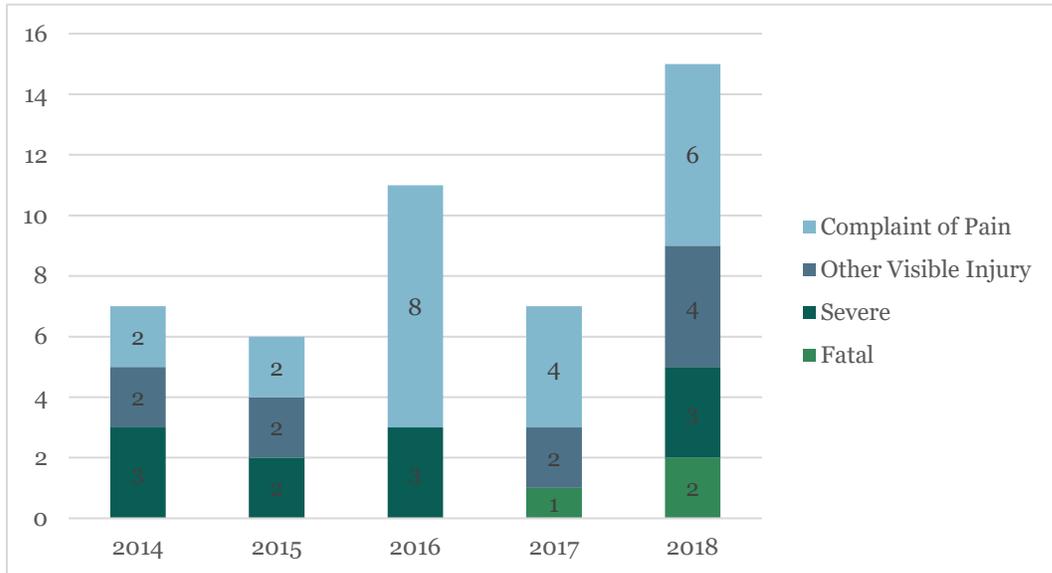
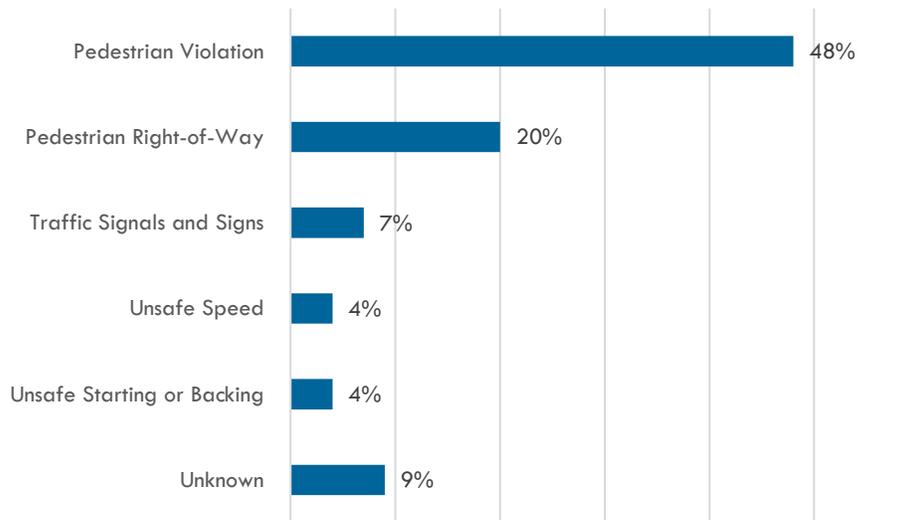


Figure 65 shows the six factors⁵ that led to collisions. The most common factor for pedestrian-involved collisions was “pedestrian violation,” which may include instances of pedestrians crossing at unmarked/unsignalized locations, highlighting the need for more connected pedestrian infrastructure. “Pedestrian right-of-way” typically refers to a situation in which a vehicle violates the right-of-way of a pedestrian (e.g. a pedestrian using a crosswalk), was the second most common factor, accounting for 20% of pedestrian-involved collisions. All collisions caused by this factor were the fault of the driver.

Figure 65 Pedestrian-Involved Collisions – Primary Collision Factor



⁵ SWITRS classifies each collision according to its primary collision factor (PCF). PCFs are general categories and can be defined as “the one element or driving action which, in the officer’s opinion, best describes the primary or main cause of the collision.”

Bicycle-Involved Collisions

Over a five-year span from 2014 to 2018, a total of 53 bicyclists have been involved in collisions, an average of 10.6 collisions per year. Unlike pedestrian collision trends, the number of bicycle-involved collisions has remained relatively constant between 2014 and 2018. As shown in Figure 66, there were zero bicycle collisions that resulted in fatalities. Of all 53 bicycle collisions, two resulted in severe injuries (3.8%).

Figure 66 Bicycle-Involved Collisions by Severity (2014-2018)

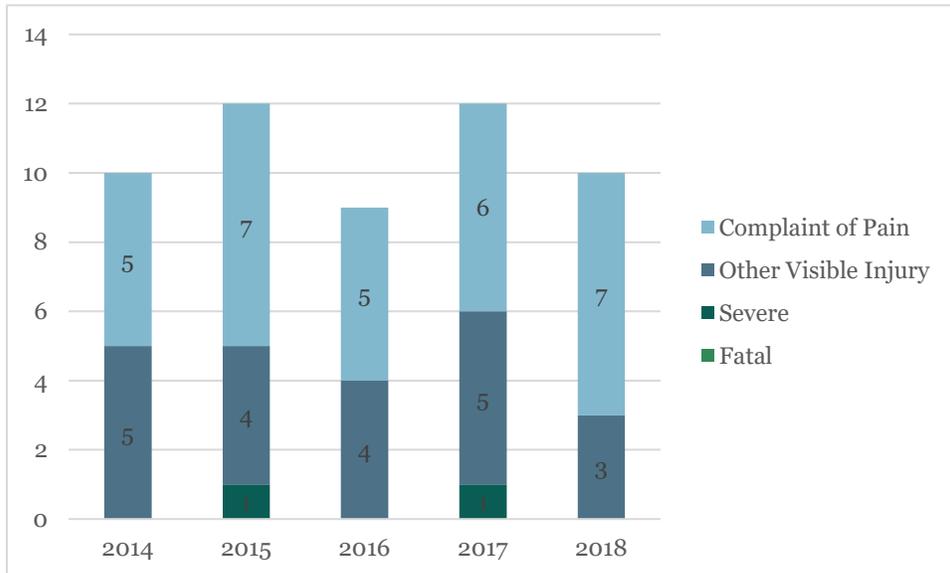
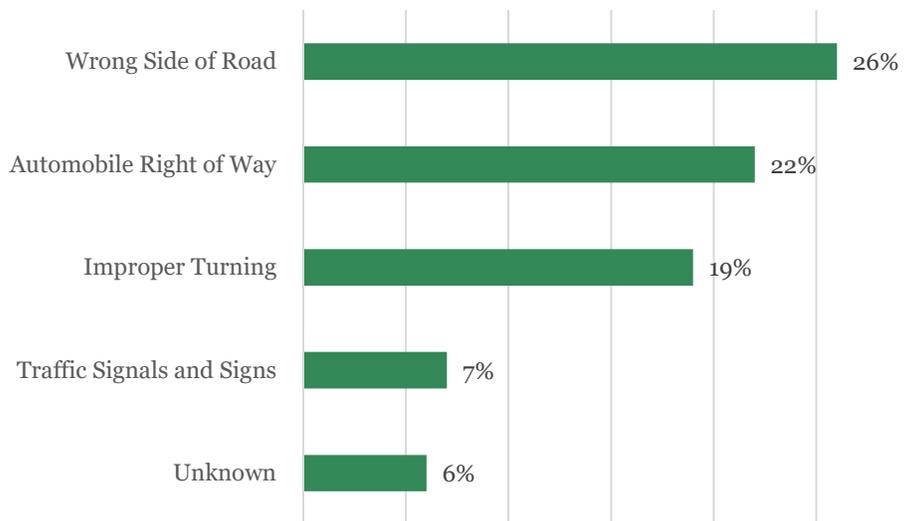


Figure 67 shows the top five factors⁶ that led to collisions involving bicyclists. The most common factor for bicycle-involved collisions was “wrong side of road” – either a bicyclist or other involved party was traveling on the wrong side of the road. In nearly all these instances, the bicyclist was at fault.

⁶ Ibid.

Figure 67 **Bicycle-Involved Collisions – Primary Collision Factor**

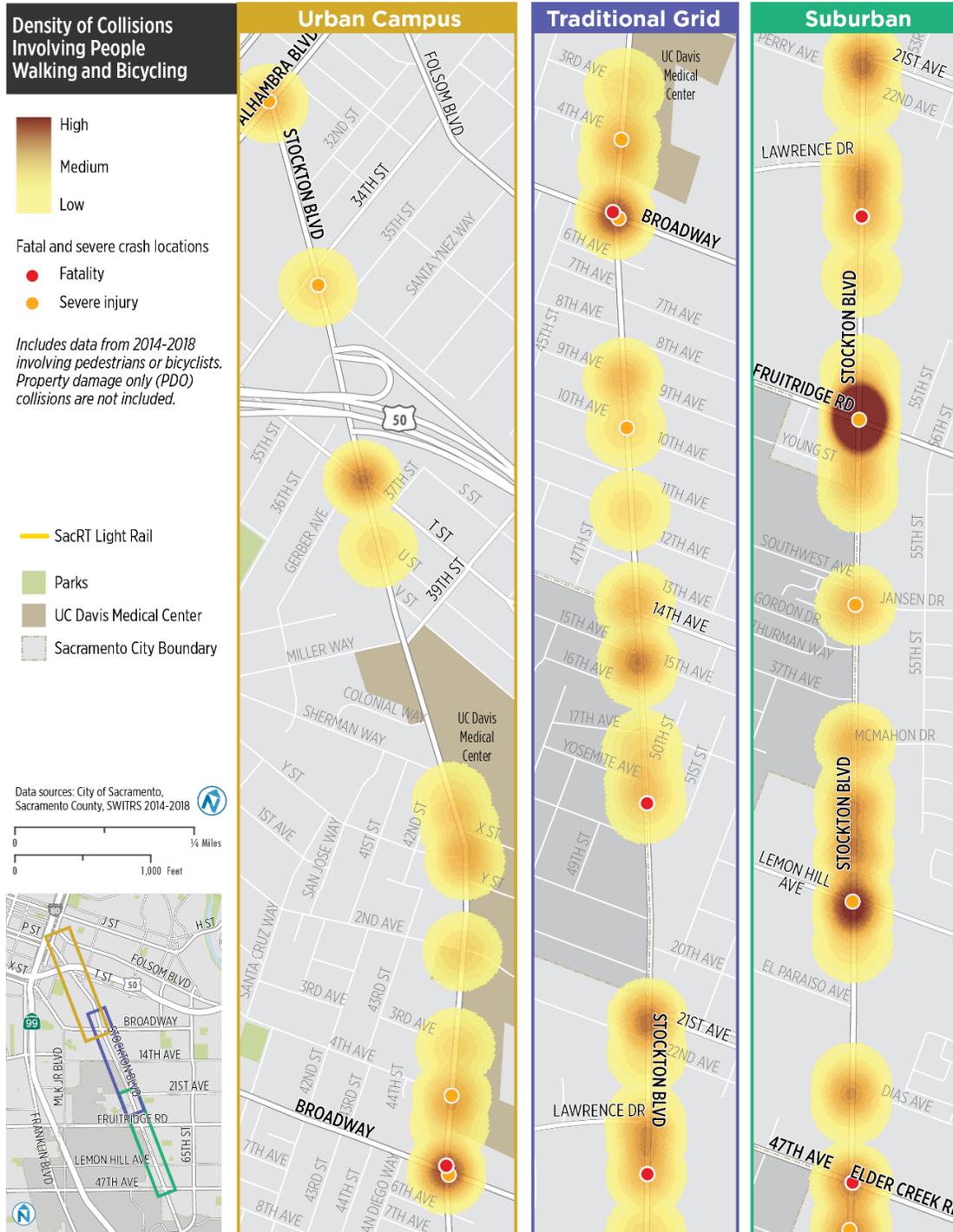


Pedestrian and Bicycle Collision Locations

Figure 68 shows the locations of collisions involving pedestrians and bicyclists. Collisions were concentrated at Broadway, Fruitridge Road, and Lemon Hill Avenue. Fruitridge Road stands out starkly as the biggest crash location.

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Figure 68 Collisions – Walking and Bicycling



APPENDIX F – STREET USAGE (CAR, PED, BIKE COUNTS)

Peak hour intersection turning movement counts were collected on Tuesday, May 7th, 2019 from 7:00 to 9:00 AM and 4:00 to 6:00 PM. The morning and evening peak hours of traffic demand were 7:15 to 8:15 AM and 4:30 to 5:30 PM.

Figure 69 shows pedestrian crossings and bicycle and motorized vehicle turning movement counts for the following study intersections.

1. Stockton Boulevard/Alhambra Boulevard
2. Stockton Boulevard/34th St.*
3. Stockton Boulevard/R St.*
4. Stockton Boulevard/U.S. 50 Westbound Ramps*
5. Stockton Boulevard/U.S. 50 Eastbound On-ramp*
6. Stockton Boulevard/T St./Gerber Ave*
7. Stockton Boulevard/39th St./Miller Way*
8. Stockton Boulevard/Colonial Way
9. Stockton Boulevard/X St.
10. Stockton Boulevard/2nd Ave.
11. Stockton Boulevard/Broadway
12. Stockton Boulevard/14th Ave.
13. Stockton Boulevard/21st Ave.
14. Stockton Boulevard/Fruitridge Rd.
15. Stockton Boulevard/Lemon Hill Ave.
16. Stockton Boulevard/47th Ave./Elder Creek Rd.

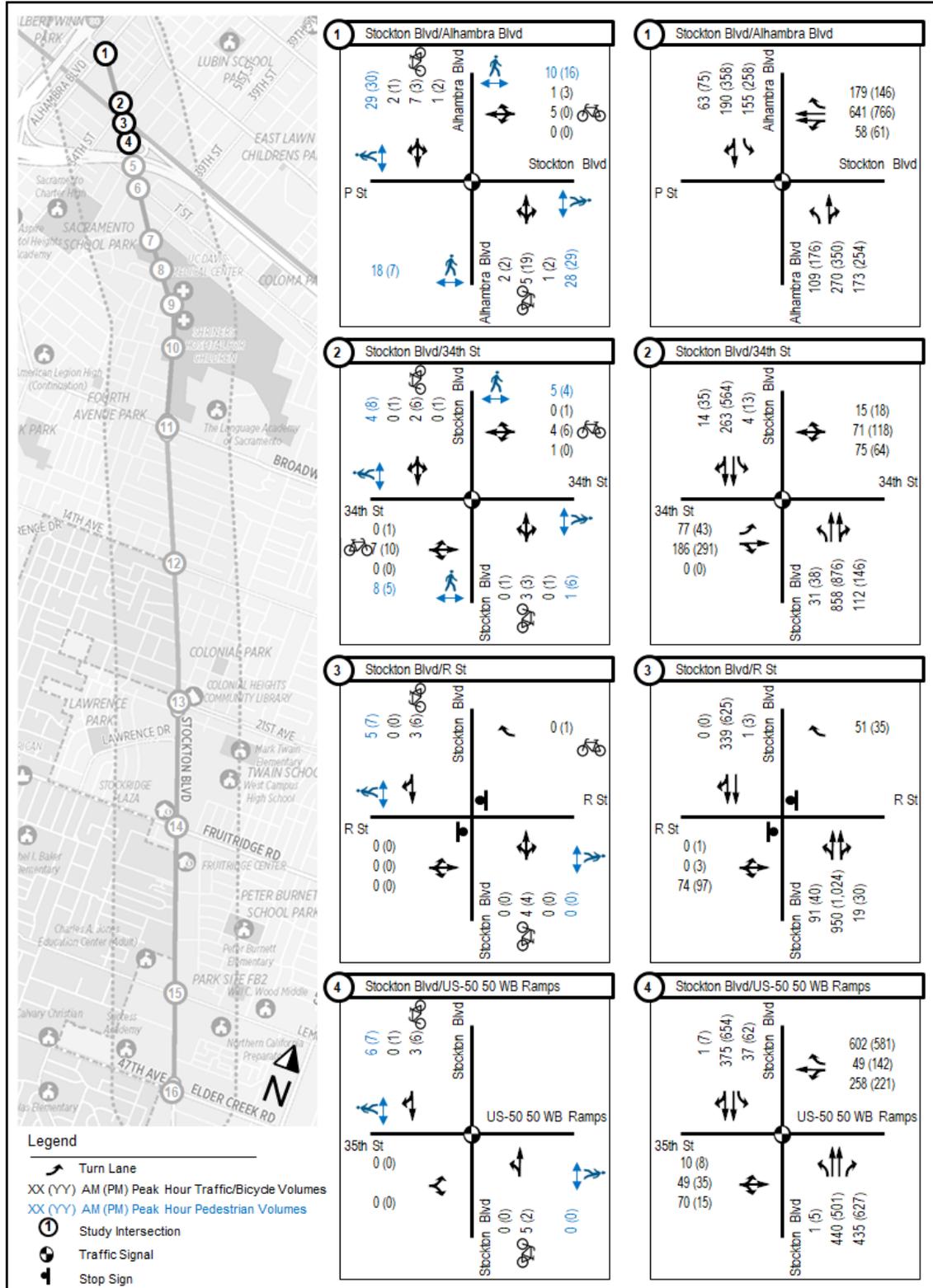
The intersections in the Urban Campus segment of the corridor generally have the most pedestrian and bicycle activity, which is concentrated at Alhambra and near the UC Davis Medical Center. There are few active mode users between Alhambra Boulevard and T Street.

T Street serves as an east-west bike route with more than 20 bicycles per hour crossing Stockton Boulevard in the peak direction.

There are relatively few active transportation users on the Traditional Grid and Suburban segments of the Stockton Boulevard corridor, with the highest concentrations at 21st Street, Fruitridge Road, and 47th Avenue/Elder Creek Road. These intersections correspond to transit stops with high activity.

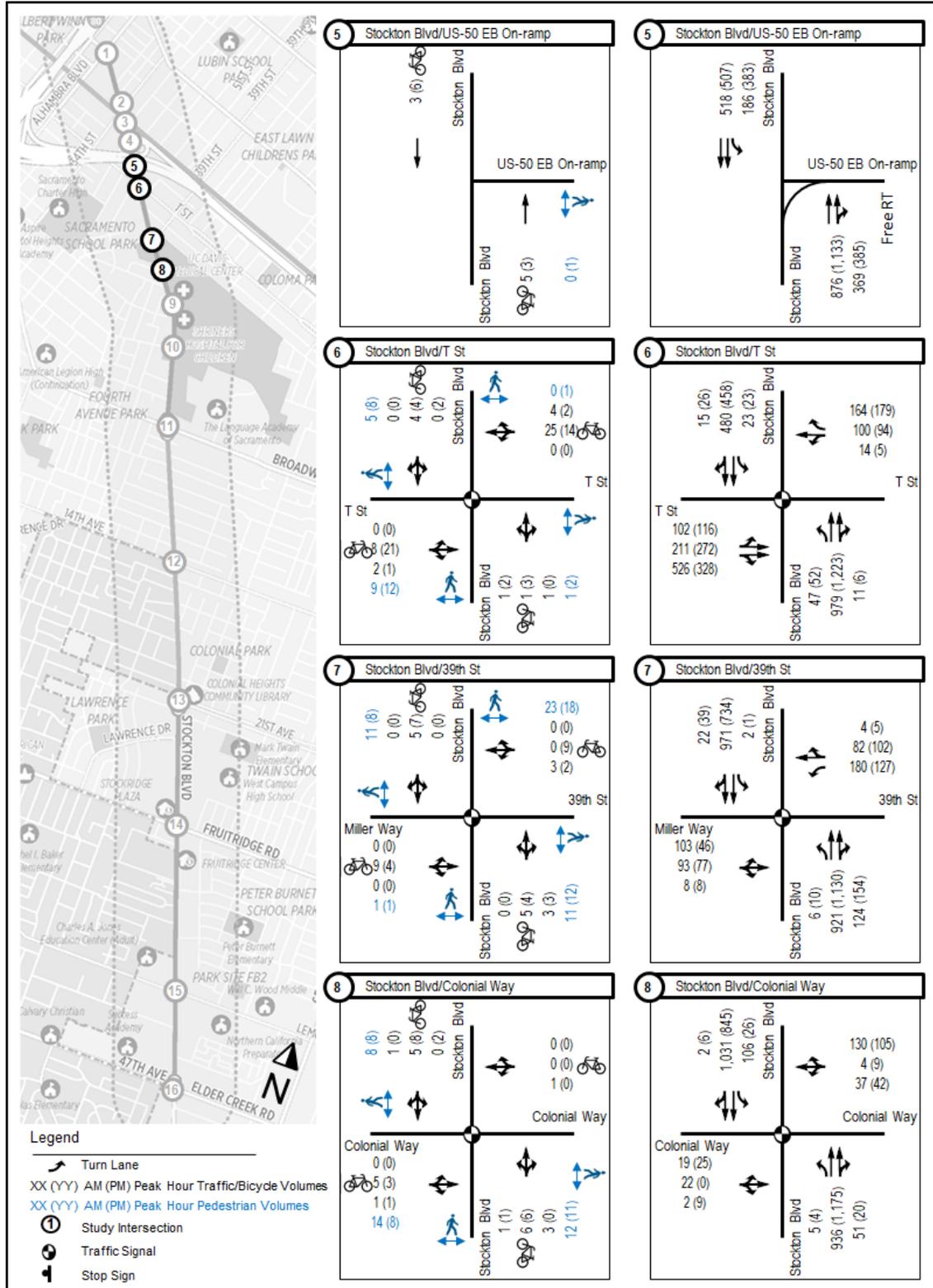
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Figure 69 Peak Hour Intersection Traffic Counts



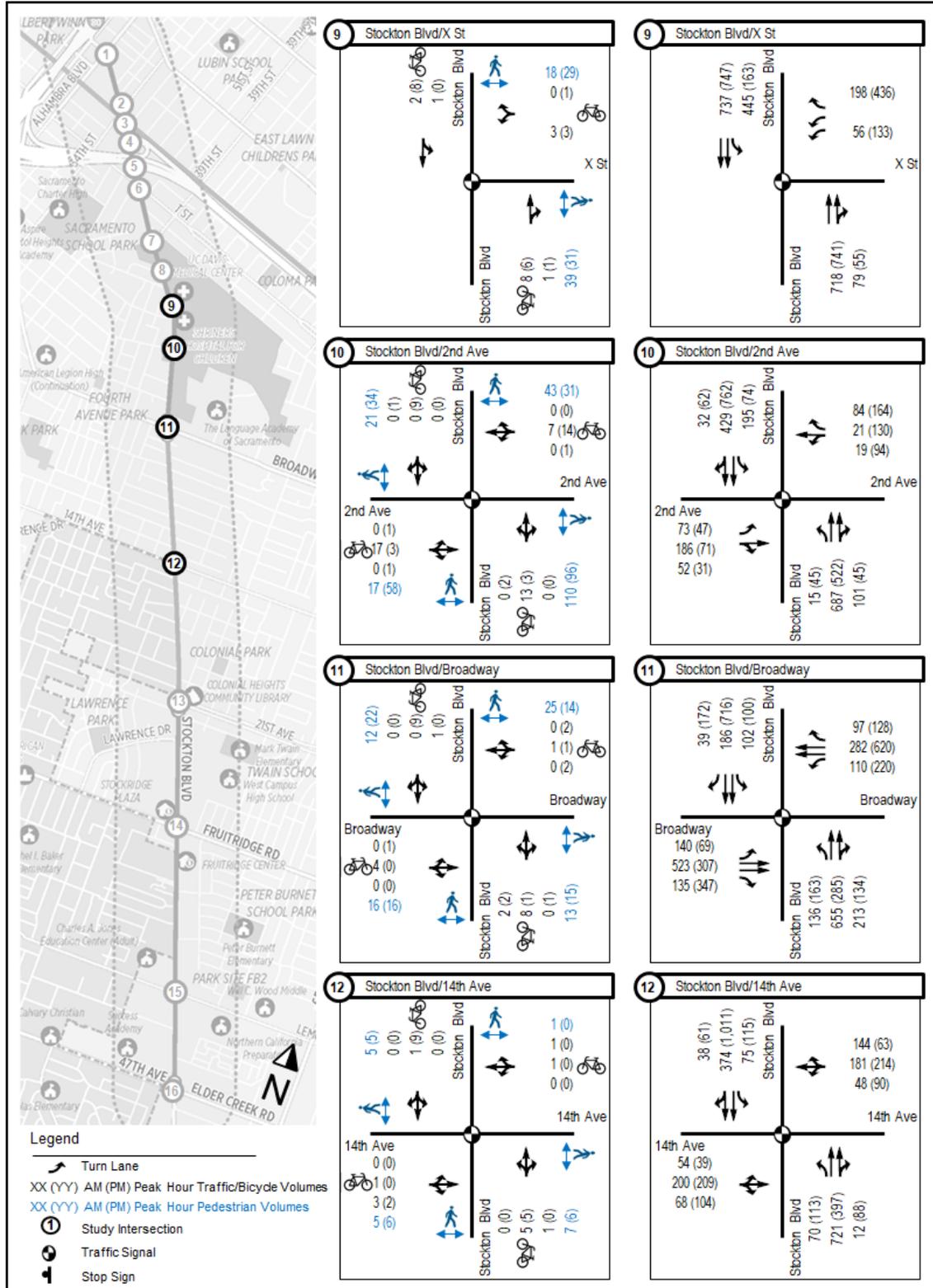
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Peak Hour Intersection Traffic Counts (continued)



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Peak Hour Intersection Traffic Counts (continued)



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Peak Hour Intersection Traffic Counts (continued)

