STOCKTON BOULEVARD CORRIDOR PLAN

APRIL 2021 DRAFT



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ACKNOWLEDGEMENTS

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01 WHY STOCKTON BOULEVARD?

Stockton Boulevard is a five-lane arterial connecting the Central City to South Sacramento. The corridor serves the UC Davis Medical Center at its north end, a growing retail node around 14th Avenue, and Little Saigon to the south.

Many people walk, bicycle, and take the bus along the corridor, but the design of the street prioritizes fast-moving drivers. There is a safety problem – two out of the five worst areas in the city for traffic injuries and fatalities are on Stockton Boulevard.

The City of Sacramento undertook a plan to understand community transportation needs and how safety and mobility could be strengthened for all users – in particular, those who are not in a car.

The result is a conceptual design for the layout of Stockton Boulevard based on community goals.



Photographs

All photographs courtesy of the project team or the City of Sacramento unless otherwise noted.

Vicinity Map







The plan area covers 4.2 miles from Alhambra Boulevard to 47th Avenue 01



WHAT IS VISION ZERO?

Vision Zero is a global movement based on the idea that traffic incidents are not "accidents" but are preventable.

The City of Sacramento has a goal of <u>eliminating traffic fatalities and</u> serious injuries by 2027 through a combination of street design changes, policies, and programs.



schools

261

Our Process

SCHEDULE



RESULTS

- Conceptual design for mobility along the corridor typically the roadway between the curbs, and the sidewalk
- ☑ Cost estimates for the next steps including environmental clearance, design and construction.



This is an example concept design shows throughout this report, showing recommended improvements and dimensions

WHICH WAY IS NORTH?

symbol $\widehat{\mathbf{N}}$. It shows which way is north.



Plan View or looking from above above

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Stockton Boulevard Today

The plan area covers 4.2 miles from Alhambra Boulevard to 47th Avenue.

Stockton Boulevard is parallel to State Route 99. There is access to US 50 at the north end. Sacramento Regional Transit District's (SacRT) Gold Line light rail crosses Stockton at street level at 34th Avenue.

Stockton Boulevard varies along its length in many ways, so a context-sensitive approach was taken. This means the design considers land use, travel patterns, and qualities of the street. The corridor was divided into three segments:

✓ North (Alhambra Boulevard to Broadway)

 Includes the eastern edge of the Midtown Association business district, the US 50 overpass, UC Davis, and a retail node at Broadway. Generally, the street feels comfortable for walking, with street trees and continuous sidewalks. But the area from 34th Avenue to US 50 is a major barrier, with high-speed highway ramps and missing sidewalks. There are no bike facilities. This portion is served by SacRT Route 38, which runs every half hour on weekdays.

☑ Central (Broadway to 21st Avenue)

• This segment has the feeling of an historic main street, with small-scale, street-fronting retail (including the Colonial Theater). Single-family housing with alley access is present along much of the east side. The sidewalk is narrow and has an inconsistent tree buffer. Bike lanes are present. SacRT's Route 51 runs every 12 minutes.

☑ South (21st Avenue to 47th Avenue)

• This segment feels loud and uncomfortable for walking or biking, with high traffic volumes and high-speed drivers. Land uses are generally big box or strip mall retail, with wide setbacks, many driveways, and large parking lots. Bike lanes are present. SacRT's Route 51 runs along this section.

WANT TO LEARN MORE?

ckton Boulevard Corridor

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Detailed information about the corridor - bus ridership, sidewalk conditions, traffic counts, community input, and more - can be found in the Existing Conditions Report and Appendices at www.stocktonblvd.org.



Existing Street Configuration

Current typical street configuration is shown below:













Community Listening

COMMUNITY LISTENING GOALS

- Get input from people living, working, and going to school all along the corridor
- Go to the community in places they are already gathering
- Gather diverse input from the Spanish-speaking and Vietnamese communities by engaging with community partners, such as Asian Resources and La Familia

ENGAGEMENT METHODS

Engagement happend in two phases:

- Summer 2019 input on existing challenges and opportunities through surveys, pop-ups, and community presentations.
- Summer 2020 input on design alternatives. Due to COVID-19, all engagement was conducted virtually. Extra efforts to publicize outreach helped the team gather 2,000 responses to the design alternatives survey!

Engagement methods used in this project included:

- ☑ Online surveys, included translated surveys in Spanish and Vietnamese
- $\ensuremath{\boxtimes}$ $\ensuremath{\square}$ Transit rider surveys on board Route 51
- Pop-ups at community gathering places (South Sacramento Christian Center, George Sims Community Center, Junior Giants Little League game, Colonial Heights Library, Oak Park Farmer's Market, Mutual Housing Lemon Hill)
- Presentations at regularly scheduled community events (Veterans of Foreign Wars, Stockton Boulevard Partnership, Neighborhood Associations)
- Phone interviews with stakeholders (including Caltrans, business owners, Police Department, school district)
- ☑ Informal focus groups with the Vietnamese community administered by Asian Resources
- ·☑ Virtual town hall

Boule

Flyers placed in free fruit and vegetable boxesdistributed during the pandemic



TOP COMMUNITY TRANSPORTATION ISSUES

O1 High-speed traffic	O2 Turning drivers do not yield to pedestrians
03 Long distance between crosswalks	04 Narrow sidewalks
O5 I No buffer I between I sidewalk and I traffic	06 Frequent driveways challenging for walking and driving
O7 Skinny bike lanes	08 No bike lanes north of Broadway
09 Limited transit amenities (shelter, seating)	10 Poor lighting

ADDITIONAL HIGH PRIORITY ISSUES

Several common concerns voiced were outside the focus of this plan, but could be tackled in the Stockton Boulevard Specific Plan.

- $\ensuremath{\boxdot}$ There's no "there" there
- Personal safety concerns
- $\ensuremath{\boxtimes}$ Litter and lack of maintenance
- $\ensuremath{\overline{\mbox{\square}}}$ No family-oriented land uses
- \boxdot Vacant parcels



Stockton Boulevard Corridor Plan

Community Priorities

TOP TRANSPORTATION PRIORITIES

The graphic below shows results of a survey question asking people to rank the top three things that would make Stockton Boulevard better.

Lower Stress Bikeway Trees And Landscaping Wider Sidewalk/separation From Traffic Places To Sit More Consistent/predictable Traffic Flow WHAT WE More Pedestrian Crossings WANT More Street Crossing Upgrade Stops , 8' First Choice 10' Easier Access To Parking Options Second Choice Sidewalk Faster Transit Times Along The Corridor Third Choice Secure Bicyle Parking \bigcirc 30 60 90 120 150 Total Responses: 271 SPACE WE

BUS RIDER PRIORITIES

A survey of bus riders showed that better waiting areas was a top priority.



Our Challenge

Ideas voiced by the community included a desire for low-stress bike facilities (meaning there would be a separator between bikes and car traffic), more trees, wider sidewalks, faster bus travel times, more comfortable bus stops, and maintaining the current five driving lanes.

There is not enough space to construct all these desires, and the City does not view widening Stockton Boulevard as a viable option. The design had to make tradeoffs to put forth the option that best met project goals within existing roadway space.



HAVE



Needed

Space

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- Community input Balancing ideas brought forth with available space
- ✓ Safety Developing the design to improve safety
- ☑ **Traffic impacts** Using traffic modeling to make sure the design does not cause major delays to drivers
- Sacramento
- development



The final design weighed a series of tradeoffs and decision factors.

✓ Cost – Calibrating costs to be comparable to other corridors in

Parallel efforts - Find opportunities to integrate and implement portions of this design into other city projects or property

THE VISION FOR STOCKTON BOULEVARD

This is a summary of how the design meets community goals for the whole corridor (pages 10-17). Additional detail on each vision element can be found on pages 18-31.





SAFETY



MORE PEDESTRIAN CROSSINGS

Add 15 new crossings and reduce average spacing from 930' today to 580'



O2 SIGNALIZED CROSSINGS

Add pedestrian signals at **3 existing** unsignalized locations and all 15 new crossings. Includes 4 new full signals controlling movement for all users (drivers, pedestrians, bicyclists).



0.3 BETTER YIELDING TO PEDESTRIANS

Add Leading Pedestrian Interval and no right turn on red at 5 major intersections

O4 PROTECTED INTERSECTIONS

Make it safer to navigate major intersections on a bicycle at 4 major intersections

MOBILITY



OI CONTINUOUS BIKE FACILITIES

Build 1.4 miles of new bike facilities in both directions, and upgrade 2.7 miles of existing bike lanes by providing more separation from traffic.

Bike facilities will include 2.4 miles of shared-use paths - giving people a more pleasant place to walk as well as bike.

O2 FASTER TRANSIT

bicyclists

MORE RELIABLE VEHICLE OPERATIONS

Design that is easy to navigate and reduced delay at 3 major intersections - T Street, US 50, and 14th Avenue

COMMUNITY



OI STRENGTHENING PLACES



2 locations

0.3 MORE LANDSCAPING Avenue

- **MORE COMFORTABLE TRANSIT**
- 05 MAINTAINING ACCESS locations

OG PEDESTRIAN-SCALE LIGHTING

Add 3 linear miles of lighting that illuminate sidewalks, crosswalks, and bus stops



1.1 miles of bus-bike lanes provide mobility for bus riders and

Focus investment around 14 existing and future activity nodes

NEW COMMUNITY SPACES

Repurpose some roadway space for plazas or gathering places in

Add 0.7 miles of trees on both sides from 21st Avenue to 47th

Add shelters and seating at 23 bus stops

Support local destinations by adding U-turn opportunities at 5

There is strong support for two design options from Alhambra Boulevard to 33rd Street.

- 1. Option 1: Adds standard striped bicycle lanes by converting one southbound vehicle lane.
- 2. Option 2: Adds buffered bicycle lanes by converting one southbound and one northbound vehicle lane. Bicycle facilities with buffers may attract more users.

Resident and business priorities must be balanced with safety concerns. Northbound traffic could spill back onto the light rail crossing at 34th Street. Further coordination ana analysis is needed to determine which option to move forward.





UNIQUE CHALLENGE

The intersection of 34th Street, R Street, and the SacRT Gold Line crossing is hard to navigate for all users. It has complex movements for drivers, missing sidewalks, and no bike lanes.

Changes to this intersection require multi-agency collaboration beyond this scope of this plan.

Stockton Boulevard Corridor Plan





UNIQUE CHALLENGE

Boulevard Corridor Plan

Stockton Boulevard at T Street has many complexitities. The angle of the streets causes visibility issues and high-speed driver turns. T Street is a major bike route but this location is a highstress point. Waiting at the traffic signal can take a long time because access from Gerber Avenue is included as its own signal phase.



03 Nor 2nd	r th Avenue te	o Bro	adway	
UC Davis He Resources D	ealth Human– Department Remove Cer TurnLane Bike Lane	nter	P.	2n
Existing	Sidewalk		Ş	55' Street
Proposed	Sidewalk		Ç	55' Street
Ń			Existing	79' 9 Right-c
Sidev Note: C	walk 📕 Bike Color is illustra	Lane/C	sycle Track 📕 I y.	Enhance
SAFET	ſY	-	Add signali Avenue	ized pe
MOBILI	ITY	-	Add cycle t on east sid	track (e
i. 🖵 🕅	L	-	Add bike la	ine sou
		L-	Preserve al	l existi
	NITY		Add bus sh Preserve m	elter a lost of



edestrian crossings at 3rd Avenue and 4th

- (bi-directional, for use by bicyclists) and sidewalk
- uthbound on west side for confident riders ing vehicle travel lanes
- at 3rd Avenue southbound [•] the existing trees

cockton Boulevard Corridor





Stockton Boulevard Corridor Plan

A BETTER CORRIDOR

The design addresses issues heard throughout the entire corridor. Pages 18 to 31 illustrate planned improvemnts applied to the entirety of Stockton Boulevard.

Land and Development Patterns

Transportation needs are directly tied to land uses – both present and future patterns. This plan focuses on transportation, but thinking about the land uses along Stockton Boulevard and where energy exists along the corridor can help target investment. Changes in areas along the corridor with lots of residents or destinations can benefit the most people.

ACTIVITY NODES

- ☑ Current activity nodes include:
 - Community destinations (UC Davis, Colonial Heights Library)
 - School access routes
 - Shopping centers

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Future activity nodes are places where many people may live, work or shop in the future. These include:

- Recent developments (The Gio at T Street)
- Approved developments



NEW COMMUNITY SPACES

Streets can be places to dwell and gather, not just pass through. Streets can be places for art, community symbols and events. Three locations near activity nodes were identified to explore re-allocation of roadway space for community use.

39th Street to Colonial Way

Between left turn pockets at 39th Street and Colonial Way, space exists in the median to add a gateway treatment. Gateways could be art or signage welcoming people to the neighborhood.



Perry Avenue

The intersection of 21st Avenue has one leg on the west side that is likely little used (further traffic analysis would be needed). There is opportunity to close this leg and turn it into a community space.





More Pedestrian Crossings

CURRENT CHALLENGES

- ☑ Insufficient marked crosswalks. 24 marked crossings (meaning there is a striped crosswalk) in 4 miles does not accommodate pedestrians
- 930' average spacing between marked crossings
- ☑ There are nine stretches where crossings are more than 1,000 feet apart - that is nearly a five-minute walk just to get to a striped crosswalk

COMMUNITY INPUT

"

- Lack of crossing opportunities."
- "Limited safe crossings."
- "Not enough places to cross Stockton Blvd between Broadway and 11th Ave."
- "Once off the bus the option is to jaywalk or walk all the way to a cross walk and then back to the residential street that you need to walk down"

PLANNED IMPROVEMENTS

- ☑ Add crossing locations based on:
 - Community input
 - Vision Zero recommendations
 - City spacing standard
 - Presence of bus stop
 - Safety history
 - Demand (school, retail hub, etc.)
 - Future development





Enhanced Crossings

The width, traffic speeds, and traffic volumes of Stockton Boulevard mean all new crossings must be enhanced with a signal.

The design also adds a signal at three existing crosswalks that do not have protection - at 10th, 11th, and 12th Avenues.



This crosswalk at 11th Avenue serves bus stops and needs signalization to improve safety

PEDESTRIAN SIGNAL TYPES

A signalized intersection for pedestrian crossings, like this one between 9th and 10th Avenues, use a standard red-yellow-green signal for drivers and are the preferred signal type.

Pedestrian Hybrid Beacons are dark until activated by a push button. They cycle through a flashing yellow, all-red, and flashing red phase to allow a person to cross the street.

HOW SIGNALS CAN REDUCE **SPEEDING**

Speeding was cited as a problem by all road users, and adding signals was proposed as a solution, even by drivers. Long signal spacing leads to drivers speeding between signals. Shorter spacing gives more opportunities to cross the street but also can reduce speeding while having little to no impact on total travel times.







Better Yielding to Pedestrians

People walking reported that drivers do not yield when turning right. The problem was particularly bad at Broadway.

"

- When the walk sign is on, drivers turning do not yield to pedestrians."
- "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."
- "Traffic that turns from Broadway on the right [to NB Stockton] Boulevard] is unsafe for pedestrians."
- "Seniors coming from Greenfair [on Broadway east of Stockton Boulevard] have a hard time making it across the street during the walk signal."

CURRENT PROBLEM

- 01 Drivers trying to turn right on red drive into the crosswalk while looking left for a gap in traffic, blocking people trying to cross the street.
- O2 When the light turns green, drivers turning right whip around the corner, cutting off people trying to cross.





PLANNED IMPROVEMENTS

Leading Pedestrian Interval and no right turn on red allowed:

- Restricting right turn on red through signage helps keep crosswalks clear and supports Boulevard.
- themselves in the intersection.
- Leading Pedestrian Interval combined with no right turn on red is proposed at T Street, Fruitridge Road, McMahon Drive, Lemon Hill Avenue, and 47th Avenue.





ADDITIONAL MEASURES

Leading Pedestrian Interval. Right turns are already restricted from T Street to Stockton

☑ Leading Pedestrian Interval (LPI) provides a "head start" for people walking. The WALK sign goes on 3-4 seconds before the driver green signal. This allows people walking to establish

These planned improvements do not address the problem of drivers not yielding once the WALK signal has been on for several seconds. Designs at specific locations cited as dangerous - including T Street, Broadway, and Fruitridge Road, are shown in the Enhancing Places section.

Continuous Bike Facilities

"

 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."

The design includes a continuous bike facility, but that facility type varies due to land use context, balancing mobility needs for all users, and development opportunities. Recommended bike facilities are described below.

SHARED-USE PATH

A shared-use path is used by people walking and bicycling. Standards based on Caltrans and the City include a 5' buffer between the driving lane and path, an 8-12' path for bi-directional travel, and a 2' shoulder next to the path. At intersections, the path will run along the curb and users will cross with the pedestrian WALK signal.

Applicable areas:

- ☑ T Street to 2nd Avenue
- ☑ 21st Avenue to 47th Avenue

CYCLE TRACK + SIDEWALK

A cycle track is used only by bicyclists. It measures 11' wide and is marked down the center to clarify which direction users should travel. There is a sidewalk next to the cycle track for walking.

Applicable areas:

☑ 2nd Avenue to just north of Broadway. This would be built in tandem with the Aggie Square development.

BUS-BIKE LANES

Bus-bike lanes are shared by bicyclists and buses and may not be comfortable for novice riders. Route 51 runs every 12 minutes, meaning a typical bicyclist may not encounter many buses. The lanes are 15-17' wide to provide passing space. There is opportunity to add a vertical separator like a bollard. Other cities with bus-bike lanes allow emergency vehicles to use them.

Applicable area:

■ I Broadway to 21st Avenue



Shared-use path dimension standards from Caltrans and Sacramento



Natomas Boulevard shared-use path users cross with the WALK signal



Cycle track next to sidewalk in Portland, OR



Bus-bike lane shared space in Portland, OR



Protected Intersections

Protected intersections keep bicyclists and pedestrians physically separate from drivers. Features include:

✓ Visibility – the setback between bike lane and driving lane means the bicyclist is more visible to a turning driver compared to a typical intersection

Separation – corner islands reduce the speed of turning drivers and create a bicyclist waiting area

Shorter crossings – people walking benefit as well, from a shorter crossing due to a more compact intersection

APPLICATION TO STOCKTON BLVD

The design includes partially or fully protected intersections at Broadway, 21st Avenue, and 47th Avenue, which have east-west bike facilities. A partially protected intersection was also included at Lemon Hill Avenue to support access by bike to Will C. Wood Middle School. Some corners at these intersections are still exposed to traffic.



Protected intersection in Lincoln, Nebraska



"

- Rt 51 has [the] highest ridership for a reason. Design Stockton for the transit-using community already there."

People want to be on time. Reliable buses that stick to the schedule benefit riders and can also attract new users.

Analysis of Route 51 travel times during the afternoon rush hour showed that the bus can be more than 3 minutes behind schedule at Broadway, Fruitridge, and Florin Town Centre. These minutes add up and can result in missing a transfer.

Bus-bike lanes have been built in cities like Boston and Portland and achieve two main things:

- Make buses more reliable by giving buses dedicated space.
- Separate bicyclists from general driving traffic. Bicyclists report they feel more comfortable sharing a lane with a trained bus driver.

The design adds bus-bike lanes from Broadway to 21st Avenue.





Bus-bike lane in Portland, OR lets the bus bypass traffic

More Comfortable Transit

The top priority for bus riders is more comfortable waiting areas.



CONSIDERATIONS

Sidewalks along Stockton Boulevard are narrow. And in places with proposed paths, the paths are routed behind bus shelters so people walking and biking are not traveling through the bus stop area. This means that in many cases, adding bus shelters with accessible boarding areas requires an easement.

There are a few different ways the bus stop and path could be laid out to reduce the need for easements, if easements pose a particular challenge at a location.

Option 1

Path behind shelter, accessible space and waiting space in front of shelter



Option 2

Path behind shelter, narrow accessible space to the side of shelter



Option 3

Combined waiting space, path, and bus stop with shelter facing away from the street









Maintaining Access

THE CHALLENGE

U-turns are signed as permitted today at 35th Avenue, Broadway Fruitridge, Dias Avenue, and 47th Avenue. This gives drivers ways of accessing local destinations if they miss a turn. From T Street to Broadway, the center turn lane will be removed to provide space for people walking, bicycling, and taking the bus.



City standards require 44' from the outside of the left turn lane to the curb to allow U-turns, like at this location at Broadway

PLANNED IMPROVEMENTS

U-turns have been added at 39th Street, X Street, and 2nd Avenue for local access. In some cases, this requires some widening into the existing sidewalk or landscaped areas between the sidewalk and travel lanes.



Slight widening at 39th Street would allow for U-turns

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Median

More Reliable Vehicle Operations

The community wanted less delay and smoother operations for those who drive. Planned improvements at three main locations are highlighted below.

T STREET

- ✓ Issues
 - Current eastbound/westbound street layout allows left turns when driver finds break in traffic - no dedicated left turn arrow
 - For eastbound movement, means through drivers can get stuck behind left turners
- Planned Improvements
 - Restrict left turns from T Street to Stockton Boulevard, which can reduce delay to drivers

US 50

- ✓ Issues
 - No signal today for southbound drivers to access US 50 eastbound ramp; drivers must cut across when they see a gap
- ☑ Planned Improvements
 - Add full signal, which provides dedicated phase to access ramp

14TH AVE

- ✓ Issues
 - Long delay due to three-phase signal
 - Confusing operations for people driving and walking
- Planned Improvements
 - Add left turn pockets on 14th Avenue so the signal can be changed to two phases - one phase for Stockton Boulevard and one phase for 14th Avenue. This reduces delay





Add Pedestrian-Scale Lighting

THE CHALLENGE

Personal security issues voiced by the community are perpetuated and made worse by inadequate lighting. Typical roadway lighting uses High Pressure Sodium (HPS) lamps placed high up (around 25' high) to illuminate the driving area.

PLANNED IMPROVEMENTS

Pedestrian-scale lighting adds light fixtures at a lower height (typically around 15 feet high) that light up crosswalks, sidewalks, and bike lanes.

The design adds pedestrian-scale lighting:

- ☑ From T Street to 2nd Avenue on the east side, where curbs will be moved in
- ✓ At new crossings
- ☑ Along the entire south segment from 21st Avenue to 47th Avenue



Lighting at different heights supports all users

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Pedestrian-scale lighting illuminates the pedestrian and bicycling zones



More Landscaping

"

- The corridor feels unsafe and there is no shade."
- "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."

Trees and landscaping have the ability to reduce the negative impacts of fast traffic, provide shade, and generally add beauty to a street. It was a top priority voiced by the community.

PLANNED IMPROVEMENTS

The design integrates trees and landscaping in the following ways:

- ✓ Potential for tree median from Alhambra Boulevard to 33rd Street in collaboration with the Midtown Association
- ✓ Preservation of existing trees from T Street to Broadway when implementing paths and cycle track
- Addition of trees between the travel lanes and shareduse path from Fruitridge Road to 47th Avenue





Many parts of the corridor lack landscaping



Trees add shade and a buffer between people walking and driving.



ENHANCING PLACES

Key activity nodes are shown in plan view, or from above, on pages 33-43.

Alhambra Boulevard to 33rd Street

CHALLENGES

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Safety

 No crossings between Alhambra and 34th Street

Mobility

- No bike facilities

Community

- Street design needs to support business community





PLANNED IMPROVEMENTS



Safety

 Add signalized crossing at 32nd Street



Mobility

2. Add bicycle lanes (option 1) or buffered bicycle lanes (option 2)



Community

3. Potential to add landscaped median in partnership with Midtown Association



Rendering showing potential landscaped median

US 50



"

Very scary biking here as cars are turning right into the freeway where there is no bike lane and hard to see bikers."

CHALLENGES

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Safety

- Traffic volumes too high to have on-street parking under US 50 overpass
- High-speed US 50 eastbound on-ramp makes walking/bicycling uncomfortable
- Long, exposed crossing at US 50 westbound off-ramp

Mobility

- No bike facilities
- Skinny sidewalk
- Community —
- US 50 underpass is dark and scary

PLANNED IMPROVEMENTS

Safety \bigcirc

- 1. Remove on-street parking under overpass
- 2. Square off corner at US 50 westbound on-ramp to reduce driver turning speed. Large trucks can make the turn using a mountable truck apron.
- 3. Extend median and add crosswalk protection at US 50 westbound off-ramp
- 4. Add signal at US 50 eastbound on-ramp to facilitate driver turning movement

Mobility

- that 5. Add buffered bike lanes, which also provide more space between people walking and driving
 - 6. Mark new sidewalk in front of The Gio Apartments as shared-use path to transition bicyclists from the T Street path to buffered bike lanes

Community

7. Add lighting under overpass in tandem with Caltrans US 50 widening project

INTERCHANGE INSPIRATION



Today, the US 50 interchange includes high-speed ramps hard to navigate on foot or bike. The overpass creates a dark unpleasant condition.



The US 101 ramps in Windsor, CA include green bike lanes, compact design, and a raised crosswalk across the on-ramp.

4 STOCKTON BLVD

Stockton Boulevard Cor

T Street



"

Stockton and T St is another scary intersection for bicyclists - large intersection to get through and I don't think cars notice us."

CHALLENGES



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Safety

- Eastbound through drivers on T Street weave around drivers waiting to turn left
- Angled intersection causes wide, high-speed turns at the opposite corners
- Skinny sidewalk with tree and poles at the southwest corner of







Eastbound T Street bike lane drops blocks before Stockton Boulevard

- No bike facilities
- Long signal cycle with multiple phases adds to delay



T Street future operations from bird's eye view

PLANNED IMPROVEMENTS

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Safety

- 1. Ban left turns from T Street to Stockton Boulevard, Westbound drivers can turn left at 39th Street. Eastbound drivers can turn left on 35th Street.
- 2. Add Leading Pedestrian Interval and restrict right turns on red to better enforce yielding to people in crosswalks.
- 3. Add a bike box westbound on T Street to get bicyclists at the head of the queue.
- 4. Widen sidewalk at clinic for better visiblity at the southwest corner.



Mobility

- 5. Remove Gerber Avenue phase from signal cycle, reducing delay.
- 6. Restripe eastbound T Street from a through left and through right lane to a through lane and a right turn lane.
- 7. Add a bike lane southbound to close a gap in the network.
- 8. Add a two-way shared-use path on the east side of the street.
- 9. Extend eastbound T Street bike lane through the intersection by removing parking. Sign as "no truck right turns" from Stockton Boulevard southbound to T Street westbound.



Community

10. Make Gerber Avenue access from T Street right-in only and build out a generous space for people walking and bicycling. This facilitates getting southbound bicyclists from the bike lane across to the two-way shared-use pathon the east side of the street.

UC Davis – Aggie Square (2nd Avenue to 4th Avenue)



CHALLENGES



Safety

High levels of activity on both sides of the street but long distance between crossings (1,600' between 2nd Avenue and Broadway – equivalent to a 7-8 minute walk)



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Mobility

No bike facility

Community

Major new development at Aggie Square will bring more activity



Safety

- 1. Add signalized pedestrian crossings at 3rd Avenue and 4th Avenue
- 2. Add two-stage bike boxes for eastbound and westbound bicyclists to wait in when turning left

Mobility



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3. Build out a two-way cycle track and sidewalk on the east side of the street

4. Add a bike lane southbound for more confident riders by removing the center turn lane

Community



- 6. Add bus shelters at 2nd Avenue and 3rd Avenue
- 7. Move bus stops currently north of 3rd Avenue to the new signalized intersection so bus riders can easily cross
- 8. Preserve existing trees on the east side



Two-way cycle track and sidewalk on the east side of the street can be achieved in collaboration with UC Davis as part of the Aggie Square development

cockton Boulevard Corridor

Broadway



" — Broadway and Stockton is another important bus connection location that needs improving."

CHALLENGES



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Safety

- Turning drivers do not yield to pedestrians

Mobility 1. I. I.

- Challenging for bus riders to cross Broadway
- Both Stockton Boulevard and Broadway are major bike routes - challenging for bicyclists to turn left and right between corridors

PLANNED IMPROVEMENTS

This design integrates planned changes to Broadway from another project.



Safety

- 1. Separate bicycles from cars at northwest and southwest corners
- 2. Use corner islands and curb extensions to make the intersection more compact, reducing turning speeds

Mobility

- 3. Move southbound stop just past Boon Boon Café to facilitate street crossings.
- 4. Provide large mixing areas at the northeast and southeast corners to help bicyclists go straight, left, or right at Broadway

Fruitridge Road



" — ... this intersection is extremely hostile to pedestrians."

CHALLENGES

Safety

- High-speed turning drivers
- Existing bike lanes are dropped approaching the intersection, causing a high-stress environment

Mobility

1. 🗖 🗱

 \checkmark

- Major bus ridership location, but also experiences delays in the afternoon rush hour
- Existing bike lanes are skinny

Community



No bus shelter at northbound stop - 99 boardings per day

PLANNED IMPROVEMENTS



1. Add Leading Pedestrian Interval and restrict right turns on red to better enforce yielding to people in crosswalks.

1. 🗖 🖈

2. Widen roadway slightly to bring bike lanes through the intersection. Widening on the southeast corner is proposed as part of the Fruitridge shopping center development.

Mobility

- 3. Add signal priority for buses northbound and southbound - this means if a bus is approaching Fruitridge Road, the green signal can be extended so the bus can make it through the light to the bus stop.
- 4. Designate sidewalks as shared-use paths. To the north and south of Fruitridge, the path widens to 12' and there is a buffer of trees between the path and the road. At Fruitridge, the exiting in-street bike lanes will remain and provide some level of buffer between the path and the driving lanes.

Boule



Community

5. Add bus shelter at northbound stop

McMahon-Lemon Hill



CHALLENGES



Safety

- Long distance between marked crossings
- Turning drivers do not yield to pedestrians



- Skinny bike lanes
- Skinny sidewalks with no buffer from fast, loud traffic





Safety 1. Add two signalized crossings one near the Best Six Motel and

one near Wing Wa supermarket

2. Add protected intersection corners at Lemon Hill Avenue on the east side of Stockton Boulevard to facilitate bicycle access to Will C. Wood Middle School



Narrow bike lanes include the gutter

S.



No existing bus shelter

yielding to people in crosswalks.

Mobility

way is wider than Stockton Boulevard is today.



k 🖬 🖬 🔬

Community

- 5. Add bus shelters at McMahon Drive
- 6. Add trees on both sides

TRAVEL TIME IMPACTS

Traffic modeling was used to understand how long it will take to drive the whole corridor compared to today. The design has minimal impacts on travel time - a typical trip in a car will take less than 2 minutes longer.

Direction	Existing (min)	Future (min)	Difference (min)	% Change (min)
Northbund	17	18.75	1.75	10%
Southbound	15	16.41	1.41	9%

3. Add Leading Pedestrian Interval and restrict right turns on red to better enforce

4. Create a shared-use path for walking and bicycling on both sides of the street with a row of trees between the path and drivers. The path relies upon expanding the pedestrian area behind the existing back of sidewalk. The publicly-owned right of

Stockton Boulevard Corridor Plan

IMPLEMENTATION

Project Cost

A project of this magnitude costs a significant amount of money to bring to reality.

Projects like Stockton Boulevard rely upon local funds and grants from the state and federal government to take this concept further. There are many grant sources available, but competition is strong and grants still require matching local funds.

State and federal funds are made available through competitive funding rounds which are typically announced every two to three years. Typical awards for corridor improvements range from \$3 - 9M, depending on the administering agency. When the grant programs become

available, the City identifies a segment for which to request funding based on the program and its typical award amounts. If successful in receiving grant awards, it can take between 4 to 7 years to perform the design, environmental clearance, and right of way, and be ready for construction. For this planning document, the corridor has been described as three different segments, but the actual implementation phasing may occur differently based on the funding being pursued.

Major Cost Categories

Projects like Stockton Boulevard are managed through two departments in the Engineering Services Division: Funding & Project Development, and Construction Inspection and Survey. These groups manage the three major milestones needed to construct major capital projects.

SACRAMENTO

Preliminary Design and Environmental Clearance

Conducts public and stakeholder engagement to refine the proposed concepts developed from the planning study, and ensure it meets the community and stakeholder needs

m

- Advances the engineering and design of the project to a 30% level of completion. Better defines project solutions, footprint, feasibility and costs.
- Identifies a project's potential impacts and mitigates significant impacts on the community and the environment.

Final Design Documentation

North

Centra

South

\$

- Advances the engineering and design of the project to a 60%, 90% and 100% level of design.
- Determines implementation pathways, including how the project ill be phased and built

Total Costs By Segment

\$0M \$5M \$10M \$15M \$20M \$25M \$30M \$35M

Total corridor cost

\$80.3M

ental Clearance

\$19.2M

\$27.7M

\$33.4M

• Public and stakeholder engagement continues during the final design phase, to inform the community of the proposed project and what to anticipate during construction.

Construction, Inspection and Certification

- Includes hiring contractors and building the work to city standards.
- Includes opportunities for local contractors and businesses to work on the project

The Path to Implementation





Approved preliminary design and environmental clearance



Stakeholder review of design progression

- award construction contract based on bid price

Final Construction Plan Set



Completed Project



MOVING FORWARD

"



- I can't tell you the number of times we've almost been hit crossing the street in the crosswalk"
- "It's hard to walk with so few crossings "
- "The bike lanes are not wide enough. Traffic moves too quickly."
- "Biking on Stockton can be sketchy, but it's the most direct"

The community surrounding Stockton Boulevard wants a safer street for everyone, however they travel. Some voiced concerns about traffic delays and impacts from this project that might affect driving, but for the most part people were interested in a street that makes them feel comfortable walking, bicycling, and visiting businesses. People who drive cited concerns about speeding. Overall, the corridor is uncomfortable for all users.

The design resulting from this plan is a bold but feasible step toward giving the community a better street to call home.

BEYOND TRANSPORTATION

The City of Sacramento is partnering with community members and business owners to transform Stockton Blvd into a thriving corridor that expands opportunities for, and supports the cultures of, existing residents and small businesses while accommodating growth. The plan will address strategies to address housing and anti-displacement; inclusive economic development; placemaking, arts, & culture; and environment & public health. Sign up to hear about upcoming discussions and other information.





rd Cor

"

- More events on Stockton. A good location is where the K-Mart was - now a Goodwill - there are vacant lots nearby. Stockton needs a facelift. Needs something to liven it up."
- "Lots of closed businesses. Need activities to attract pedestrians."

Stockton Boulevard's Future is Rooted in **Today's Community**



come back."

"

- slow cars down"
- the street back"





If they make it so cars couldn't go 65 mph and if they made it better for walking and biking, I bet these businesses would

- "A couple more stop lights between 14th Avenue and 21st to

"Create a pedestrian zone 14th to Broadway"

"Wider sidewalks and trees to make it safer for families to take

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WWW.STOCKTONBLVD.ORG	

COMMUNITY ENGAGEMENT

METHODS

- Outreach May 24, 2020 July 5, 2020
- Surveys
 - o English, Spanish, and Vietnamese
 - $_{\odot}\,$ 2,187 total responses, and over 2,000 unique comments
- Digital open house
 - $\circ~$ Open house recording posted on project website for those who could not attend
- Joined neighborhood organizations virtually
 - Elmhurst, Oak Park, Tahoe Park
- Worked with Community Based Organizations to increase awareness of the survey
 - Asian Resources, La Familia, Sacramento Asian Pacific Chamber of Commerce, South Sacramento Church, Stockton Blvd. Partnership
- Flyers
 - Distributed at Peter Burnett Elementary School and Will C Wood Middle School during emergency food distributions (including in food boxes)
 - $_{\odot}\,$ Also distributed at food distributions hosted by Asian Resources and La Familia

VIRTUAL TOWN HALL

June 25, 2020

- 1,299 unique viewers
- Hosted on Zoom and streamed via:
 - Council Member Jay Schenirer, District 5 (Facebook)
 - Council Member Eric Guerra, District 6, (Facebook)
 - Sacramento Asian Pacific Chamber of Commerce (Facebook)
 - Stockton Blvd Partnership (Facebook)
 - Tahoe Park Neighborhood Association (Facebook)
- Generally received positively. Conversations focused on improving connectivity to/from Stockton Blvd. with improved lighting, vegetation, safe crossing opportunities, etc.

COMMUNITY PARTNERSHIPS

Presentations

- Elmhurst Neighborhood Association
- Oak Park Neighborhood Association
- South Oak Park Community Association
- Stockton Boulevard Partnership

Collaboration to advertise engagement efforts

- Asian Resources
- La Familia
- Sacramento Asian Pacific Chamber of Commerce
- Vietnamese Chamber of Commerce

ONLINE SURVEY

- · Getting the word out
 - Advertised via social media within the corridor study area
 - Distributed through community based organization channels of communication
 - Flyers shared at food distribution locations
- 2,187 people responded to the survey
- Survey was available in Spanish and Vietnamese
 - $_{\circ}$ 16 responses to Spanish version
 - $_{\circ}$ 1 to Vietnamese

Nghiên Cứu Giao Thông Stockton Boulevard

GIÚP CHÚNG TÔI ĐỊNH HƯỚNG TƯƠNG LAI ĐƯỜNG STOCKTON BOULEVARD!

Stockton Boulevard là đường hành lang quan trọng nối liền thành phố đến Nam Sacramento.

Thành Phố Sacramento đang điều nghiên hình dung sự phát triển giao thông đến hành lang Stockton Boulevard.

Vào mùa Hè 2019 chúng tôi lắng nghe từ bạn và cộng đồng về những ưu tiên và cần thiết. Từ đó chúng tôi có lựa chọn để hỏi quý vi.

Thành Phố Sacramento phát họ Những lựa chọn này nhằm cải t của QUÝ VI, những khách bộ hị

Xin cám ơn trước sự đồng góp

Carril de balciteta Entirée Acers Carrier de balciteta Entirée Acers Carrier de balciteta Proposition Acers Carrier de balc

4. ¿Cuál es su opción preferida para la sección de Alhambra Blvd a US 50?

O Opción 1: Carriles de bicicleta con defensa; 2 carriles de vehículo + carril de vuelta

O Opción 2: Carriles de bicicleta, 3 carriles de vehículo + carril de vuelta

O No puedo decidir

O tra opción (por favor describa la opción en detalle)

TRAVEL PATTERNS

- Respondents want viable multimodal travel options on Stockton Boulevard
- Two-thirds would still prefer to travel by car, but biking, walking, and transit are the next most preferable options
- Percent increase in mode choice from existing to preferred:
 - $_{\odot}$ Wheelchair or other mobility assistance + 629%
 - Transit +242%
 - Scooter +233%
 - Bicycle +142%
 - $_{\odot}$ Walk +89%
 - Get dropped off -5%
 - o Taxi, Lyft, Uber -14%
 - Drive -28%

How do you travel along Stockton Boulevard on a typical day? Select all that apply. (n = 2,182)

How would you *prefer* to travel along Stockton Boulevard? Select all that apply. (n = 2,174)

7

ALHAMBRA TO US 50

Existing Conditions

ALHAMBRA TO US 50

Respondents prefer Option 1: Buffered bike lanes + 2 vehicle lanes + turn lane, but the margin is lowest of all segments (51% in favor of Option 1)

What is your preferred option for Alhambra Blvd to US 50? (n = 1,959)

- Other ideas and comments
 - Add more trees and landscaping
 - $_{\odot}~$ Add physical protection for bike lane in Option 1
 - Add bike parking/bike lockers

US 50 TO 2ND AVENUE

Existing Conditions

US 50 TO 2ND AVENUE

Preference for Option 1 (Shared-use path + enhanced bus stops; 4 vehicle lanes): 57% in favor







- · Other ideas and comments
 - Need wider sidewalks
 - Add more signalized crossings
 - Add more trees and landscaping in this area
 - Designate route for left-turning vehicles at Miller and 2nd Avenue
 - o Look at opportunities for bus signal priority

US 50 TO 2ND AVENUE: ALTERNATE BIKE ROUTE THROUGH UCD CAMPUS

Respondents favor an alternate route



Would you use an alternate route through

Respondent comments:

- Would need good wayfinding signage
- Add more lighting to alternate route
- Detour is too long and adds excessive travel time
- Whatever option is selected, T Street intersection needs improvements for people biking
- "A detour defeats the whole purpose of this project. The point is to make Stockton Blvd which is currently the most direct way in and out of downtown more bicycle friendly."

2ND AVENUE TO BROADWAY

Existing Conditions





13

2ND AVENUE TO BROADWAY

Respondents prefer Option 1: Enhanced bus stop + bike lane + bike path, 4 vehicle lanes



What is your preferred option for 2nd Ave to Broadway? (n = 1,771)



· Other ideas and comments

 $_{\odot}$ $\,$ Concern about buses blocking vehicle traffic at stops $\,$

BROADWAY TO 21ST AVENUE

Existing Conditions





BROADWAY TO 21ST AVENUE

Strong preference for Option 2: Enhanced bus stops + buffered bike lanes, 2 vehicle lanes + turn lane





- · Other ideas and comments
 - o Adding trees a high priority
 - $_{\odot}$ Need to fix or relocate signal at Stockton and 8^{th}
 - Option 2 design may encourage people biking to enter general traffic lane to pass stopped buses – concerns about safety

21ST AVENUE TO 47TH AVENUE / ELDER CREEK RD

Existing Conditions





21ST AVENUE TO 47TH AVENUE / ELDER CREEK RD

Strong preference for Option 2: Enhanced bus stops, raised cycletrack, 4 vehicle lanes + turn lane

Most definitive preference out of all segments



What is your preferred option for 21st Ave to 47th Ave? (n = 1,666)



- · Other ideas and comments
 - Suggestion for center-running BRT
 - $_{\circ}$ $\,$ Huge support for adding trees
 - o Concern about people driving in the bus/bike lane
 - o Hesitation about liming left turn access to businesses
 - Concern that Option 2 shows no change in the short term. Why not at least narrow the travel lanes, add buffer to bike lanes, and improve sidewalks, before building more expensive elements?

RAISED BIKE LANE AT SIDEWALK LEVEL

Respondents strongly favor a raised bike lane (also called cycletrack)



Do you feel that a raised bike lane at sidewalk level would be a good option

Respondent comments

- Concerns about visibility of people biking when drivers are making turns
- Frustration over lack of consistency in the bike facilities presented along the corridor
- Cost may be prohibitive
- Some respondents are confused about the concept of a raised bike lane – how it works, why it has to be raised
- Concerns about maintenance, and keeping the cycletrack free of debris

SHARED BUS / BIKE LANES



Themes of comments collected:

- Concern about how bus drivers can yield to/pass people biking
- Bus/bike lanes may attract delivery drivers for use as parking lane
- Drivers likely to drive in the lane during congested times
- Unsure how safe this would be how do buses and bikes pass one another

RESPONDENT PROFILE

- Young people under age 25 are underrepresented in survey sample

 2.8% of survey sample is 18 to 24 years old, versus 9.4% of city population
- Low income people are underrepresented
 - 39% of Sacramento residents have household income under \$50,000, but just 17% of survey sample falls into this tier







1*,*659)



RESPONDENT PROFILE

- Survey oversamples white residents (60%), underrepresents people of color
 - Overall, 33% of Sacramento residents identify as white, 29% Hispanic or Latino, 19% Asian, and 13% Black or African American
- 95% of survey respondents speak English at home, compared to 62% of Sacramento residents

How do you describe your race or ethnicity? (n = 1,655)



What language do you speak most often in your home? (n = 1,648)



RESPONSES BY ZIP CODE

• More than half of all responses from central corridor area (772 from 95820 and 337 from 95817)



	Opinior	of Proba	ble Cost		
Client: Nel	son\Nygaard				
Project Na	me: Stockton Boulevard Corridor Plan (Total)				
Project Lo	cation: Stockton Boulevard - Alhambra Blvd to 47	'th Ave.			
WSP Proje	ct Number: 193206				
Date of Est	timate: 11/24/2020				
ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
Roadway	•				
1	Minor CONCRETE (Curb Ramp)	EA	106	\$6,000	\$636,000
2	Minor CONCRETE (Curb)	LF	12602	\$30	\$378,057
3	Minor CONCRETE (Curb and Gutter)	LF	20386	\$50	\$1,019,321
4	Minor CONCRETE (Driveways)	EA	69	\$4,000	\$276,000
5	Minor CONCRETE (Sidewalk & Shared path)	SF	260320	\$12	\$3,123,835
6	Minor Concrete (Median)	SF	21185	\$10	\$211,853
7	Roadway Excavation	CY	4555	\$130	\$592,093
8	HMA (Type A)	TON	18084	\$150	\$2,712,546
9	Class 2 Aggregate Base	CY	10560	\$200	\$2,111,923
10	HMA overlay & Cold Plane AC	SY	162780	\$35	\$5,697,297
11	Storm Drain Work	LS	3	\$380,000	\$1,140,000
12	6" Thermoplastic Stripe	LF	95870	\$1.00	\$95,870
13	8" Thermoplastic Stripe	LF	19992	\$1.25	\$24,990
14	Thermoplastic Pavement Marking	SF	28089	\$10.00	\$280,889
15	Green MMA (Methyl Methacrylate)	SF	7646	\$10	\$76,462
16	Red Colored Paint	SF	94717	\$15	\$1,420,759
17	Channelizers (Surface mounted)	EA	604	\$50	\$30,200
18	Remove Existing Street Light	EA	150	\$1,500	\$225,000
19	Bus Shelter cost	EA	18	\$10,000	\$180,000
20	Landscaping - planting and irrigation	LS	2	\$590,000	\$1,180,000
21	Clearing and Grubbing	LS	3	\$20,000	\$60,000
Electrical	•				
22	Signal Moification	EA	11	\$350,000	\$3,850,000
23	New Traffic Signal	EA	6	\$750,000	\$4,500,000
24	Pedestrian Half Signals	EA	14	\$125,000	\$1,750,000
25	Signal Moification - 14th St.	EA	2	\$50,000	\$100,000
26	Install Ornamental Street Light	EA	150	\$7,000	\$1,050,000
27	Interconnect labor & Material	LS	3	\$434,000	\$1,302,000
				SUB TOTAL	\$34,025,096
	Minor Items (5%)	LS			\$1,701,255
	Traffic Control Detour, Maintenance (10%)	LS			\$3,402,510
	Mobilization (10%)	LS			\$3,402,509.56
				SUB TOTAL	\$42,531,369
			CO	NTINGENCY (35%)	\$11,908,783
			CON	STRUCTION TOTAL	\$54,440,153

Total	\$54,450,000

Project Delivery Costs	1
	45 445 000
Preliminary Engineering & Environmental (10%)	\$5,445,000
Right of Way/TCEs (3%)	\$1,633,500
Final Design (18%)	\$9,801,000
Construction Management (18%)	\$9,801,000
Total	\$26,680,500
Percentage of Construction cost (without ROW)	46%
Total	\$81,130,500

List of Assumptions:

1. The number of street lights to be removed and installed is approximate. No topo available this phase.

2. Adjusting pull boxes, valve cover boxes, and manhole covers to grade not included in this estimate.

3. Per Caltrans specification section 84-2.04, this estimate assumes contractor will be spraying thermoplastic traffic stripes, thus double stripes were counted as a single stripe

4. Yellow Traffic Stripe is assumed to be non-hazardous

5. For purposes of calculating Roadway Excavation from widening areas and bus shelter landscape areas, a structural depth of 18" of depth was assumed

6. Landscaping cost assumed to be \$5/sf, including landscape irrigation.

7. Utility Pole relocations are not included. It is assumed utility pole relocations are the responsibility of the utility owners.

8. A 2" HMA overlay thickness assumed based on the PCI provided

9. All existing Streetlights will be removed within the project limits, regardless of sidewalk improvements. New ornamental street lights will be installed within project limits.

10. No Drainage improvements required where curb & gutter will be replaced in place.

	Opinion	of Probab	ole Cost		
Client: Ne	lson\Nygaard				
Project Na	ame: Stockton Boulevard Corridor Plan (North Seg	ment)			
Project Lo	cation: Stockton Boulevard - Alhambra Blvd to B	roadway			
WSP Proje	ect Number: 193206				
Date of Es	stimate: 11/24/2020				
ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
Roadway					
1	Minor CONCRETE (Curb Ramp)	EA	34	\$6,000	\$204,000
2	Minor CONCRETE (Curb)	LF	8938	\$30	\$268,140
3	Minor CONCRETE (Curb and Gutter)	LF	5289	\$50	\$264,450
4	Minor CONCRETE (Driveways)	EA	8	\$4,000	\$32,000
5	Minor CONCRETE (Sidewalk & Shared path)	SF	64128	\$12	\$769,532
6	Minor Concrete (Median)	SF	19403	\$10	\$194,026
7	Roadway Excavation	CY	2265	\$130	\$294,409
8	HMA (Type A)	TON	5726	\$150	\$858,865
9	Class 2 Aggregate Base	CY	2445	\$200	\$489,082
10	HMA overlay & Cold Plane AC	SY	49131	\$35	\$1,719,590
11	Storm Drain Work	LS	1	\$380,000	\$380,000
12	6" Thermoplastic Stripe	LF	35274	\$1.00	\$35,274
13	8" Thermoplastic Stripe	LF	5636	\$1.25	\$7,045
14	Thermoplastic Pavement Marking	SF	12934	\$10.00	\$129,335
15	Green MMA (Methyl Methacrylate)	SF	1687	\$10	\$16,874
16	Remove Existing Street Light	EA	50	\$1,500	\$75,000
17	Bus Shelter cost	EA	2	\$10,000	\$20,000
18	Landscaping - planting and irrigation	LS	1	\$590,000	\$590,000
19	Clearing and Grubbing	LS	1	\$20,000	\$20,000
Electrical					
20	Signal Moification	EA	6	\$350,000	\$2,100,000
21	New Traffic Signal	EA	3	\$750,000	\$2,250,000
22	Pedestrian Half Signals	EA	1	\$125,000	\$125,000
23	Install Ornamental Street Light	EA	50	\$7,000	\$350,000
24	Interconnect labor & Material	LS	1	\$434,000	\$434,000
				SUB TOTAL	\$11,626,621
	Minor Items (5%)	LS			\$581,331
	Traffic Control Detour, Maintenance (10%)	LS			\$1,162,662
	Mobilization (10%)	LS			\$1,162,662.13
				SUB TOTAL	\$14,533,277
			CO	NTINGENCY (35%)	\$4,069,317
			CON	STRUCTION TOTAL	\$18,602,594

\$18.	610	.000

Project Delivery Costs	
Preliminary Engineering & Environmental (10%)	\$1,861,000
Right of Way/TCEs (3%)	\$558,300
Final Design (18%)	\$3,349,800
Construction Management (18%)	\$3,349,800
Total	\$9,118,900

Total

Percentage of Construction cost (without ROW)	46%

List of Assumptions:

1. The number of street lights to be removed and installed is approximate. No topo available this phase.

2. Adjusting pull boxes, valve cover boxes, and manhole covers to grade not included in this estimate.

3. Per Caltrans specification section 84-2.04, this estimate assumes contractor will be spraying thermoplastic traffic stripes, thus double stripes were counted as a single stripe

4. Yellow Traffic Stripe is assumed to be non-hazardous

5. For purposes of calculating Roadway Excavation from widening areas and bus shelter landscape areas, a structural depth of 18" of depth was assumed

6. Landscaping cost assumed to be \$5/sf, including landscape irrigation.

7. Utility Pole relocations are not included. It is assumed utility pole relocations are the responsibility of the utility owners.

8. A 2" HMA overlay thickness assumed based on the PCI provided

9. All existing Streetlights will be removed within the project limits, regardless of sidewalk improvements. New ornamental street lights will be installed within project limits.

10. No Drainage improvements required where curb & gutter will be replaced in place.

	Opinion	of Probab	le Cost		
Client: Nel	lson\Nygaard				
Project Na	me: Stockton Boulevard Corridor Plan (Central Se	gment)			
Project Lo	cation: Stockton Boulevard - Broadway to North	of 21st Avenu	Je		
WSP Proje	ect Number: 193206				
Date of Es	timate: 11/24/2020				
ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
Roadway					
1	Minor CONCRETE (Curb Ramp)	EA	22	\$6,000	\$132,000
2	Minor CONCRETE (Curb)	LF	1372	\$30	\$41,157
3	Minor CONCRETE (Curb and Gutter)	LF	324	\$50	\$16,221
4	Minor CONCRETE (Sidewalk / Bus stop)	SF	6648	\$12	\$79,779
5	Minor Concrete (Median)	SF	69	\$10	\$693
6	Roadway Excavation	CY	380	\$130	\$49,339
7	HMA (Type A)	TON	4674	\$150	\$701,167
8	Class 2 Aggregate Base	CY	3685	\$200	\$737,010
9	HMA overlay & Cold Plane AC	SY	42983	\$35	\$1,504,419
10	Storm Drain Work	LS	1	\$85,000	\$85,000
11	6" Thermoplastic Stripe	LF	13909	\$1	\$13,909
12	8" Thermoplastic Stripe	LF	10282	\$1.25	\$12,853
13	Thermoplastic Pavement Marking	SF	8167	\$10	\$81,669
14	Green MMA (Methyl Methacrylate)	SF	295	\$10	\$2,950
15	Remove Existing Street Light	EA	40	\$1,500	\$60,000
16	Red Colored Paint	SF	94717	\$15	\$1,420,759
17	Channelizers (Surface mounted)	EA	604	\$50	\$30,200
18	Bus Shelter cost	EA	5	\$10,000	\$50,000
19	Clearing and Grubbing	LS	1	\$20,000	\$20,000
Electrical					
20	Signal Moification	EA	2	\$350,000	\$700,000
21	New Traffic Signal	EA	1	\$750,000	\$750,000
22	Pedestrian Half Signals	EA	6	\$125,000	\$750,000
23	Signal Moification - 14th St.	EA	2	\$50,000	\$100,000
24	Install Ornamental Street Light	EA	40	\$7,000	\$280,000
25	Interconnect labor & Material	LS	1	\$434,000	\$434,000
				SUB TOTAL	\$8,053,125
	Minor Items (5%)	LS			\$402,656
	Traffic Control Detour, Maintenance (10%)	LS			\$805,312
	Mobilization (10%)	LS			\$805,312.50
				SUB TOTAL	\$10,066,406
			CON	FINGENCY (35%)	\$2,818,594
			CONST	RUCTION TOTAL	\$12,885,000

Total \$12,890,000	312,830,000
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Project Delivery Costs	
Preliminary Engineering & Environmental (10%)	\$1,289,000
Right of Way/TCEs (3%)	\$386,700
Final Design (18%)	\$2,320,200
Construction Management (18%)	\$2,320,200
Total	\$6,316,100

Percentage of Construction cost (without ROW) 46%

List of Assumptions:

1. The number of street lights to be removed and installed is approximate. No topo available this phase.

2. Adjusting pull boxes, valve cover boxes, and manhole covers to grade not included in this estimate.

3. Per Caltrans specification section 84-2.04, this estimate assumes contractor will be spraying thermoplastic traffic stripes, thus double stripes were counted as a single stripe

4. Yellow Traffic Stripe is assumed to be non-hazardous

5. For purposes of calculating Roadway Excavation from widening areas and bus shelter landscape areas, a structural depth of 18" of depth was assumed

6. Landscaping cost assumed to be \$5/sf, including landscape irrigation.

7. Utility Pole relocations are not included. It is assumed utility pole relocations are the responsibility of the utility owners.

8. A 2" HMA overlay thickness assumed based on the PCI provided

9. All existing Streetlights will be removed within the project limits, regardless of sidewalk improvements. New ornamental street lights will be installed within project limits.

10. No Drainage improvements required where curb & gutter will be replaced in place.

	Opinion o	f Probabl	e Cost		
Client: Nel	son\Nygaard				
Project Na	me: Stockton Boulevard Corridor Plan (South Seg	gment)			
Project Loo	cation: Stockton Boulevard - North of 21st Avenu	ue to South of	47th Ave		
WSP Proje	ct Number: 193206				
Date of Est	timate: 11/24/2020				
ITEM No.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
Roadway					
1	Minor CONCRETE (Curb Ramp)	EA	50	\$6,000	\$300,000
2	Minor CONCRETE (Curb)	LF	2292	\$30	\$68,761
3	Minor CONCRETE (Curb and Gutter)	LF	14773	\$50	\$738,650
4	Minor CONCRETE (Driveways)	EA	61	\$4,000	\$244,000
5	Minor CONCRETE (Sidewalk / Bus stop)	SF	189544	\$12	\$2,274,524
6	Minor Concrete (Median)	SF	1713	\$10	\$17,135
7	Roadway Excavation	CY	1910	\$130	\$248,345
8	HMA (Type A)	TON	7683	\$150	\$1,152,515
9	Class 2 Aggregate Base	CY	4429	\$200	\$885,831
10	HMA overlay & Cold Plane AC	SY	70665	\$35	\$2,473,288
11	Storm Drain Work	LS	1	\$305,000	\$305,000
12	6" Thermoplastic Stripe	LF	46687	\$1	\$46,687
13	8" Thermoplastic Stripe	LF	4074	\$1.25	\$5,093
14	Thermoplastic Pavement Marking	SF	6988	\$10	\$69,884
15	Green MMA (Methyl Methacrylate)	SF	5664	\$10	\$56,638
16	Remove Existing Street Light	EA	60	\$1,500	\$90,000
17	Bus Shelter cost	EA	11	\$10,000	\$110,000
18	Landscaping - planting and irrigation	LS	1	\$630,000	\$630,000
19	Clearing and Grubbing	LS	1	\$20,000	\$20,000
Electrical					
20	Signal Moification	EA	3	\$350,000	\$1,050,000
21	New Traffic Signal	EA	2	\$750,000	\$1,500,000
22	Pedestrian Half Signals	EA	7	\$125,000	\$875,000
23	Install Ornamental Street Light	EA	60	\$7,000	\$420,000
24	Interconnect labor & Material	LS	1	\$434,000	\$434,000
				SUB TOTAL	\$14,015,349
	Minor Items (5%)	LS			\$700,767
	Traffic Control Detour, Maintenance (10%)	LS			\$1,401,535
	Mobilization (10%)	LS			\$1,401,534.92
				SUB TOTAL	\$17,519,187
			CONTIN	IGENCY (35%)	\$4,905,372
			CONSTRU	ICTION TOTAL	\$22,424,559

\$2,243,000
\$672 <i>,</i> 900
\$4,037,400
\$4,037,400
\$10,990,700
\$1

Percentage of Construction cost (without ROW)

\$22,430,000

46%

List of Assumptions:

1. The number of street lights to be removed and installed is approximate. No topo available this phase.

Total

2. Adjusting pull boxes, valve cover boxes, and manhole covers to grade not included in this estimate.

3. Per Caltrans specification section 84-2.04, this estimate assumes contractor will be spraying thermoplastic traffic stripes,

thus double stripes were counted as a single stripe

4. Yellow Traffic Stripe is assumed to be non-hazardous

5. For purposes of calculating Roadway Excavation from widening areas and bus shelter landscape areas, a structural depth of 18" of depth was assumed

6. Landscaping cost assumed to be \$5/sf, including landscape irrigation.

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9. All existing Streetlights will be removed within the project limits, regardless of sidewalk improvements. New ornamental street lights will be installed within project limits.

10. No Drainage improvements required where curb & gutter will be replaced in place.

621 SW MORRISON ST. SUITE 1250 PORTLAND, OREGON 97205



GENERAL NOTES

- 1. Drawings are concept design (~15%) plans drawn over aerial utilizing GIS right-of-way information.
- 2. Proposed pedestrian crossing locations have been identified in this draft plan. Further coordination with the City of Sacramento will be conducted to determin treatments are required at each crossing.
- 3. Proposed landscaping areas have been identified in this draft plan. Specific placement of landscape features (trees, shrubs, grasses, irrigation, etc.) is subject to refinement by others. For the purposes of cost estimation, it is assumed that in landscaping areas 8' wide or greater that trees will be planted every 40' on cen sight distance requirements or other appurtenances preclude their planting.
- 4. Drainage improvements required due to curb movement are not shown in this plan.
- 5. Utility conflicts beyond those that are clearly visible in Google Earth or other project file photos are not noted in this plan. Future phases shall conduct survey information as needed depending on the scope of work in locations along the corridor.
- 6. It shall be assumed that in locations where the curb is moved all pedestrian infrastructure, including ramps, shall be reconstructed to meet the standards set by With Disabilities Act (ADA).
- 7. This draft plan assumes construction of bus shelters at all stops where geometrically feasible, except for stops without a corresponding stop in the opposite di If a proposed shelter location encroaches onto private ROW it is assumed that an easement shall be acquired for its placement.
- 8. At intersections where an off-street bikeway is proposed, the bikeway shall reduce in size on approach to the intersection such that it becomes sidewalk. Cycli across the intersection using the pedestrian crossing indication.
- 9. These plans contain information from the following work by others:
 - a. Fruitridge and Stockton Boulevard right turn lane widening
 - b. Development application mitigations for development between 21st and Lawrence
 - c. Vision Zero Top 5
 - d. Pedestrian crossing evaluation at Fruitridge shopping center

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	STOCKTON BOUILEVARD			Preferred Alternative	
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STOCKTON BOULEVARD CORRIDOR PLAN

Existing Conditions Report

November 2019



Stockton Boulevard Corridor Plan City of Sacramento

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Stockton Boulevard Corridor Plan City of Sacramento

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INTRODUCTION

Safety and mobility are two critical needs on Stockton Boulevard. The plan area includes two of the top five most dangerous stretches of roadway in the city according to the City of Sacramento's Vision Zero program. Stockton Boulevard is one of the few north/south local roads linking south Sacramento to downtown. This puts pressure on Stockton Boulevard to balance the needs of local and regional trips across multiple modes.

This existing conditions document weaves together data analysis and community input to gain a holistic understanding of needs, challenges, and opportunities on the corridor. The findings from this phase of the project will lead to development of corridor alternatives.

PLAN AREA

The Stockton Boulevard plan area covers just over four miles of the corridor from Alhambra Boulevard to 47th Avenue (Figure 1). The plan area is under the jurisdiction of the City of Sacramento, except for two west side sections of the street which fall under Sacramento County.

Stockton Boulevard is parallel to State Route 99. There is access to Highway 50 at the north end of the corridor. Sacramento Regional Transit District's (SacRT) Gold Line light rail crosses Stockton at grade level at 34th Avenue.

Design alternatives must consider a street's land uses, development patterns, and traffic characteristics. On Stockton Boulevard, there are three distinct areas with different qualities that will inform solutions. The plan area has been separated into segments based on these qualities and is referred to by section throughout this document. The areas are:

- **Urban Campus** (Alhambra Boulevard to Broadway) Includes the eastern edge of the Midtown Partnership business district, the Highway 50 overpass, UC Davis, and a retail node at Broadway. Generally, the street feels comfortable for walking, with street trees and continuous sidewalks. There are no bike facilities. SacRT's Route 38, which runs every 60 minutes, serves this part of the corridor.
- Traditional Grid (Broadway to 21st Ave) This section has the feeling of an historic main street, with small-scale, street-fronting retail (including the Colonial Theater). Single-family housing and several marked, unprotected crosswalks are present in this area. The sidewalk is narrow in places, and there are street trees in some areas. Bike lanes are present. SacRT's Route 51 runs along this section.
- Suburban (21st Ave to 47th Ave) This section feels loud and uncomfortable for walking or biking, with what feels like high traffic volumes and high-speed drivers. Land uses are generally big box or strip mall retail, with wide setbacks, many driveways, and large parking lots. Bike lanes are present. SacRT's Route 51 runs along this section.

Stockton Boulevard for the most part retains a consistent five-lane section throughout the plan area, but differences in land use, intersection type and frequency, pedestrian crossing types and frequencies, and variance in section width define the different segments. An aerial view of the corridor divided into segments is shown in Figure 2

Stockton Boulevard Corridor Plan City of Sacramento



Figure 1 Stockton Boulevard Plan Area and Destinations

Stockton Boulevard Corridor Plan City of Sacramento

Figure 2 Stockton Boulevard Segments



1 PLANNING CONTEXT

PLANNING DOCUMENTS

Several previous plans were reviewed. Recommendations relevant to Stockton Boulevard's design were collated from these reports. For details see Appendix E.

- City of Sacramento <u>Pedestrian Master Plan</u>, City of Sacramento, 2006
- <u>Stockton Boulevard Imagined</u>, Urban Land Institute, 2009
- Sacramento <u>Transit Action Regional Transit Master Plan</u>, Sacramento Regional Transit District, 2010
- Sacramento County <u>Bicycle Master Plan</u>, County of Sacramento, 2011
- Stockton Boulevard Opportunity Sites: Opportunity for a Sustainable Stockton Boulevard, Sacramento Housing and Redevelopment Agency, 2011
- City of Sacramento <u>Bicycle Master Plan</u>, City of Sacramento, 2018
- Sacramento General Plan 2035, City of Sacramento, 2015
- Zoning Code of Sacramento County: <u>Stockton Boulevard Special Planning Area</u>, County of Sacramento, 2015
- Broadway/Stockton Urban Design Plan, County of Sacramento, 1998
- Stockton Fruitridge Neighborhood Opportunity Site: <u>Vision Action Plan</u>, Sacramento Building Healthy Communities Hub, 2016
- <u>Sacramento Metropolitan Transportation Plan/Sustainable Communities Strategy</u>, Sacramento Area Council of Governments, 2016
- <u>Vision Zero Top Five Corridor Study</u>, City of Sacramento, 2017
- Vision Zero Sacramento Action Plan, City of Sacramento, 2018

2 COMMUNITY PROFILE

This section highlights plan area demographics, travel patterns, land uses, and existing design.

LAND USE

Land immediately adjacent to Stockton Boulevard is primarily zoned for general commercial use, as seen in Figure 3. Several blocks away from Stockton Boulevard, the area is predominantly lowand medium-density residential use. Some pockets of commercial uses are found along intersecting streets including Broadway, Fruitridge Road, and 47th Avenue.

The corridor includes two stretches of County land that are zoned as Special Planning Area: one between 14th Avenue and 21st Avenue, and the other between Fruitridge Road and Lemon Hill Avenue. The County's Stockton Boulevard Special Planning Area was created to encourage revitalization, discourage uses that are incompatible with residential neighborhoods, reduce motor vehicle parking requirements, enhance access and connections for people walking, biking, and rolling, and promote aesthetic improvements to the area.

There is one major development under construction along Stockton Boulevard, at Stockton and T Street. This intersection has also seen several improvements made to improve safety, such as the installation of a protected left turn, a bicycle signal, and striping changes.



Figure 3 Land Use Along Stockton Boulevard

POPULATION AND EMPLOYMENT

As seen in Figure 4, the highest density of both jobs and residents (darkest green color on the map) is found near the northern end of the plan corridor, in downtown Sacramento. The highest population densities are found along the western side of the Traditional Grid segment, and on both sides of the Suburban segment. In general, population density is higher on the western side of the corridor. Areas of high employment density are found around Broadway and Stockton, at the UC Davis Medical campus, and on the west side of the Suburban segment.



Figure 4 Density of Residents and Jobs

TRAVEL PATTERNS

Travel data was extracted from Sacramento Area Council of Governments' SACSIM regional travel demand model. The travel demand model predicts how people in the six-county region travel on a typical weekday, origins and destinations, and trip purpose.

SACSIM tracks trips by Transportation Analysis Zones (TAZs). Trips that travel along a portion of Stockton Boulevard and the TAZs touching the corridor were analyzed to further understand how many trips travel to and through the plan area. Trips for each segment (Urban Campus, Traditional Grid, Suburban) were classified into three categories based on the location of their origin and destinations:

- *Local to Segment*, meaning that the trip origin and/or destination is in a TAZ adjacent to the selected segment. For example, a trip that starts along Folsom and travels to UC Davis Medical Center using the Urban Campus segment is a Local on Segment trip.
- *Local to Stockton Corridor*, meaning that the trip traveled through two or more segments and its origin and/or destination was within a TAZ adjacent to Stockton Boulevard. A trip starts in the Traditional Grid area and travels through the Urban Campus segment on its way to downtown would be *Local to Stockton Corridor* for the Urban Campus segment and *Local to Segment* for the Traditional Grid segment.
- *Through trip*, meaning that the trip uses the selected segment, but neither the origin nor destination are located along Stockton Boulevard.

Examples of each category of trip are shown in Figure 5.Figure 6 shows the percentage of trips in each zone classified by category. For all three segments, travel is fairly split between through and local trips. The Urban Campus segment has the highest percentage of through trips (50%), which is to be expected given the presence of freeway on- and off-ramps in that section. The Urban Campus segment carries a high percentage of trips from origins/destinations adjacent to the segment, largely because this segment is the primary access for the UC Davis Med Center and other high trip-generating land uses. The Traditional Grid segment carries the fewest through trips and the largest portion of trips with origins/destinations adjacent to the other two segments.

Figure 5 Trip category examples



Figure 6 Percentage of corridor users by origin/destination and segment

Selected Segment	Local to Segment	Local to Stockton Corridor	Through Trips			
Urban Campus	oan Campus 44%		50%			
Traditional Grid	22%	37%	41%			
Suburban	24%	27%	49%			

The following maps (Figure 7 through Figure 9) show the network distribution of trips using each segment of the Stockton Boulevard corridor. The more trips a segment has, the thicker it appears on the map. These maps show how Stockton Boulevard typically functions as a complementary facility to SR-99 rather than a competing or alternative route.



Figure 7 Flow of trips using the corridor: Urban Campus Segment



Figure 8 Flow of trips using the corridor: Traditional Grid Segment



Figure 9 Flow of trips using the corridor: Suburban Segment

STREET LAYOUT

This section describes current street layouts in the corridor by its three segments: Urban Campus, Traditional Grid, and Suburban. The following figures show a typical street layout, example photos, and plan views displaying geometric issues and opportunities typical to each segment. Note that sections vary slightly within each segment. Key trends throughout the corridors:

- **Sidewalks**. Sidewalk widths range from a maximum of 13 feet to a minimum of 5 feet.
- **Bicycle Lanes**. Striped bicycle lanes exist south of Broadway ranging in width from 5' to 6', usually with a 2' to 3' portion of the bicycle lane on asphalt outside of the gutter. This is consistent with current City Street Standards.
- **Landscape Buffers**. Landscape buffers vary from property to property along the corridor, ranging from nonexistent (providing only a 5' curb-tight sidewalk) to widths that meet or exceed the 7'-8" city street design guidelines.
- **Travel Lanes**. Travel lanes vary in width from 11' to 12' along the corridor. The inside travel lanes are typically 11' with the variable lane width captured in the outside lanes. Turn lanes vary from 11'-12', with some portion of the turn lane width in the gutter.
- **Parking**. There is very little on-street parking on Stockton Boulevard. It is present for two blocks in the Urban Campus segment at the US 50 interchange. On-street parking is typically 7' wide per City standards.
- Medians. Stockton Boulevard's cross section includes a mostly continuous two-way left turn lane throughout the plan area. This lane varies in width from 10' to 11'. In the Traditional Grid and Suburban segments, the two-way left turn lane is interrupted by a raised, planted median. This median may serve as a pedestrian refuge, block left turns at offset intersections, or establish turn lanes at expanded intersections. It varies in width from a minimum 2' at expanded intersections to 10' at pedestrian crossing refuges.
- **Bus Pullouts**. Bus pullouts exist at various locations along the corridor. Their ultimate width is typically 10' which enables the bus to pull out of general traffic to serve a stop while blocking the bicycle lane if it exists in the section. Typically, the 10' width is gained by encroaching upon the landscape buffer.

Urban Campus Segment

At US 50, the curb-to-curb width is 81' and there is on-street parking.

Figure 10 Cross-Section: Under I-50 Bridge



From U to V Streets, there are street trees and the area generally feels comfortable for walking. The property lines are at the back of the sidewalk, for a total right-of-way of 80'.

Unique Challenge in Urban Campus Segment: SacRT Rail Crossing

The SacRT Gold Line crosses Stockton Boulevard where it intersects 34th Street and R Street. As currently designed, the at-grade crossing has minimal features to enhance pedestrian safety, consisting of a pair of striped crosswalks over the rails. Sidewalks are missing on either side of the railroad tracks, as are pedestrian safety gates as seen in Figure 13. This intersection is also difficult to navigate as a motorist, due to operational challenges of a 5-way intersection and the rail crossing. While the Stockton Boulevard Corridor Plan will identify some improvements to this intersection, this intersection requires improvements that are out of the scope of this effort. Future Sacramento efforts will analyze traffic flow, turning movements, signal operations, and other site-specific data to improve conditions.



Figure 11 Cross-Section: U Street to V Street



Figure 12 Urban Campus Segment Defining Characteristics

Figure 13 Urban Campus – Typical Conditions



Typical bus stop and street section

Stockton Boulevard at US 50 interchange



34th Street light rail crossing facing north

Traditional Grid Segment

In this segment, the sidewalk and buffer vary throughout. In some places there is a generous sidewalk while in other places it is 5'. The buffer ranges from nonexistent to planted with trees. The property line shifts from parcel to parcel.

Figure 14 Cross Section Between Roosevelt Avenue to Parker Avenue





Figure 15 Traditional Grid Segment Defining Characteristics

Figure 16 Traditional Grid – Typical Conditions



Typical signalized intersection

Mid-block pedestrian crossing with median refuge



Existing bicycle facilities

Suburban Segment

This segment includes the largest intersections in the plan area, with dual left turn lanes and occasionally right turn lanes as well. The parcel lines, in many cases, are well behind the sidewalk; for example, in Figure 17 the parcel line runs through a parking lot on the east side, yielding a right-of-way of 104'.











Figure 19 Cross section – Intersection of Stockton Boulevard and Fruitridge Road

SECTION AT BUS STOP (FRUITRIDGE RD)



Figure 20 Suburban Segment Defining Characteristics

Figure 21 Suburban Segment – Typical Conditions



Typical cross street intersection

Signalized mid-block pedestrian crossing



Existing street section with raised median on approach to intersection

3 TRAVELING STOCKTON BOULEVARD TODAY

WALKING

While people walk throughout the corridor, the intersection with the highest volume of pedestrian traffic is 2nd Avenue, according to traffic count data collected by video in May 2019. More than 100 people cross 2nd Avenue east of Stockton Boulevard in both the AM and PM peak hours, or the hours during morning and evening rush hour with the highest volumes observed. Sixty people cross Stockton Boulevard in the AM peak and 89 in the PM peak. Alhambra Boulevard, X Street, Broadway, and Fruitridge Road all saw pedestrian counts in the 20-30 range per peak hour. For a detailed look at pedestrian counts, please see Appendix F.

Sidewalks and Sidewalk Buffers

Sidewalks are continuous throughout the corridor except for one stretch of approximately 80', located along the west side of Stockton at 4th Avenue. Figure 22 shows sidewalk and buffer widths based on a sampling of locations throughout each plan segment. Sidewalk width varies from less than six feet up to 13 feet. In general, sidewalks are wider on the west side, though widths are more consistent on the east side of the street. Sidewalk widths are more generous in the Urban Campus and Traditional Grid segments, while widths in the Suburban segment are consistently close to 6 feet.

Unlike sidewalks, buffers between the street and the sidewalk are not consistently present throughout the corridor. Buffer strips are more common on the east side and range from 5.5 to nearly 12 feet in width. Along the west side of Stockton Boulevard, buffers are very uncommon. In the Suburban segment, they are almost nonexistent.

<u> </u>				West side				East side			1	
				Side	walk	Buffer			Buffer		Sidewal	k
	From	То	At	width (ft.)		width (ft.)			width (ft.)		width (ft)
Urban Campus	Alhambra	32nd	32nd		11.5	.5			7		5.5	
	32nd	34th	33rd		13	13			5.5		6.5	
	т	39th	V St		6		5.5		6.5		7	
	39th	x	39th		11.5			6.5		6		
rid	Broadway	8th	6th		9		>	11		6		
nal G	8th	10th	9th		6		9.5	dway	11.5		6	
aditio	12th	14th	13th		7		5	Road	8.5		8	
Tra	14th	San Francisco	15th		5.5			_	6.5		5	
	21st	Lawrence	mid-block		6						5	
ırban	Lawrence	Fruitridge	mid-block		5.5						5	
Subu	Jansen	McMahon	Gordon		7.5						6	
	Lemon Hill	Dias	El Paraiso		6						5	

Figure 22 Sidewalk and Buffer Width

Driveways and Curb Cuts

Driveways are numerous along the plan corridor. Spacing was calculated for one block north of Fruitridge Road (Figure 23). Sacramento street design standards specify a minimum distance of 250' between driveways along four-lane arterial streets, indicating that this stretch of Stockton Boulevard is not in compliance with city standards.





Crossing the Street

The frequency and design of pedestrian crossings is essential to pedestrian mobility. High visibility crossings enable pedestrians to safely cross busy streets and alert drivers to the possibility of encountering pedestrians. The spacing between marked crosswalks is largest along the Suburban segment, with an average spacing of 1,034 feet between marked crosswalks, and lowest along the Urban Campus segment, with an average spacing of 906 feet (Figure 24).

Guidance and standards regarding the desired spacing between marked pedestrian crossings are scant. Local traffic engineers determine the spacing between signalized intersections and marked crossings based on pedestrian crossing demand, roadway type, traffic volume, and other factors. The City's *Pedestrian Crossing Guidelines* recommends considering a distance of 300 feet from the nearest intersection as a starting point in determining whether an uncontrolled site should be treated with a marked crosswalk, which is consistent with the Federal Highway Administration's Manual on Uniform Traffic Control Devices. As shown in Figure 24, the shortest spacings between marked pedestrian crossings are concentrated along the Traditional Grid segment, between Broadway and 14th Avenue, and the Urban Campus segment, near the UC Davis Medical Center.





BICYCLING

Stockton Boulevard is a key route in the city's bicycle network, with bike lanes present in the 5.4 miles from Broadway to Mack Road (Figure 25). A few bicycle lanes, including those along Broadway, 47th Avenue, and Lemon Hill Avenue support east-west travel; however, they span just a few blocks and do not connect to bicycle facilities east of the corridor.

Streets with more than one lane per direction, speed limits above 25 mph, and traffic volumes greater than 6,000 ADT — all of which apply to Stockton Boulevard — generally require some level of physical separation for riders of all ages and abilities to feel comfortable bicycling. Figure 25 shows that Sacramento's Bicycle Master Plan proposes adding separated bikeways along Stockton Boulevard north of Broadway near the UC Davis Medical Center to T Street, and along Fruitridge Road. These facilities will offer a greater level of physical protection from automobile traffic and may attract more riders to the area.



Figure 25 Bicycle Facilities

TAKING TRANSIT

Several SacRT bus routes, including the 38, 51, 61 and the 109 Express, operate near or along Stockton Boulevard (Figure 26). The 51 Local is the most frequent route with 12- to 15-minute headways during peak travel times. The only route north of Broadway is the Local 38, which has 60-minute headways throughout the day. SacRT's Gold Line Train also passes through the Urban Campus segment and arrives every 15 minutes throughout the day.

The highest stop activity occurs at Broadway and Fruitridge Road, where the 51 intersects with the 38 and 61, respectively. As shown in Figure 26, stop activity along the 51 is highest in the Urban Campus and Suburban segments and lowest in the Traditional Grid segment.

Of the 42 stops within the plan area, almost half are equipped with benches and a bus shelter. Stops with moderate to high boardings but minimal amenities are at Lawrence Drive southbound, Fruitridge Road northbound, at Stockridge Plaza Shopping Center northbound and southbound, and McMahon Drive northbound.



Figure 26 Transit Stop Activity and Amenities

DRIVING

In general Stockton Boulevard consists of four travel lanes and a center turn lane. The street widens at major intersections such as Highway 50, Fruitridge Road, and 47th Avenue. The posted speed is 30 mph between Alhambra Boulevard and 2nd Avenue, 35 mph between 2nd Avenue and Lemon Hill Avenue, and 40 mph from Lemon Hill Avenue to 47th Avenue.

As shown in Figure 27, historical traffic volumes along Stockton Boulevard at Fruitridge Road and at Broadway began to decline just prior to the early 2000s recession. This downward trend continued into the Great Recession. Similarly, Average Daily Traffic (ADT) volumes along Stockton Boulevard between T Street and 42nd Street also declined during the Great Recession but have since increased. The large dip in volumes at Fruitridge Road was caused by a construction project.



Figure 27 Trends in Traffic Volume along Stockton Boulevard

Source: City of Sacramento

Figure 28 shows ADT for segments of Stockton Boulevard. ADT is generally higher in the northbound direction compared to southbound for the length of Stockton Boulevard. ADT is higher in the northern and southern sections, and lowest in the middle near Broadway.
Segment	Total	Year	SB ↓	NB 🛧
Stockton between T and Miller/39th	24,015	2012	11,084	12,931
Stockton at Sherman Wy	25,502	2016	11,8 <mark>2</mark> 9	13,673
Stockton at Broadway	16,874	2013	7,573	9,301
Stockton between 14th and 21st St Ave	17,690	2013	9,142	8,548
Stockton at Fruitridge Rd	26,093	2017	12,717	13,376
Stockton at Lemon Hill Ave	26,007	2013	13,652	12,355
Stockton at 47th Ave	29,877	2017	14,918	14,959

Figure 28 Average Daily Traffic Volumes by Year and Direction

Source: City of Stockton

Average daily traffic and level of service (LOS) for 2019 are shown in Figure 29. The entire length of Stockton Boulevard within the plan area is operating at LOS A – LOS D, as well as many adjacent and connecting arterial streets. FHWA's Road Diet Informational Guide states that roadways with 20,000 ADT make good candidates for road diets, but facilities with up to 24,000 ADT have been successfully transitioned from a four-lane to three-lane configuration.¹ The Urban Campus section from Alhambra to Broadway carries 26,500 ADT. From Broadway to Fruitridge, volumes drop to 19,600. South of Fruitridge, volumes jump back up to 29,700 per day.



Figure 29 2019 ADT and LOS

Level of Service **xx.x** Traffic Volume x 1,000 A - D E F

¹ <u>https://safety.fhwa.dot.gov/road_diets/guidance/info_guide/</u>

4 COMMUNITY NEEDS

Community support is a key driver of success for this project. Engagement throughout the plan process ensures that community concerns are well documented, and that final recommendations reflect the needs and desires of residents. This section outlines the various outreach methods, and summarizes the key themes gleaned from conversations with the community. Full details on outreach results are included in Appendix A, B, C, and D.

OUTREACH METHODS

A variety of methods were used and will continue to be used to collect a wide array of feedback from diverse community members. Methods include targeted stakeholder group meetings and events targeted at the general public and are described below.

- **Online Presence** a designated website for the project was created, providing community members with general information, an inventory of upcoming public engagement events, and links to pertinent items such as a one-page flyer for sharing and an online survey. Social media channels were used to communicate key milestones.
- **Stakeholder Phone Interviews** The project team worked with city staff to identify key stakeholders who were unavailable to sit on a formal committee or only needed to provide targeted insight regarding the project for phone interviews. Additionally, two inperson conversations were hosted with representatives of Spanish speaking and Vietnamese communities.
- **Surveys** The following survey tools were used for this plan:
 - Bus passenger surveys were used to understand passenger travel patterns and assess the challenges to accessing transit service along Stockton Boulevard. A total of 358 bus passenger survey responses were collected during this effort from July 22 to July 26, 2019.
 - An online community survey collected information on how, where, when people use the corridor today, appetite for using transit/walking/biking, safety concerns, access challenges, and preferred improvements. A total of 292 online community survey responses were submitted during this effort from June 24 to July 21, 2019.
- **Going to the Community** For this plan, the outreach strategy deviated from standard approaches such as open houses that ask community members to attend a workshop to learn about the project. Instead, outreach met the community where they were through pop-up tabling events and community presentation at existing community events.

STAKEHOLDER INTERVIEWS

The project team interviewed stakeholders with diverse perspectives in order to understand how their constituents use Stockton Boulevard today and to identify opportunities for change (see Appendix A for the list of discussion questions). The results of the stakeholder interviews will inform recommendations for future safety improvements along Stockton Boulevard.

COMMUNITY EVENTS

Five tabling events were held to understand how the community uses Stockton Boulevard for both local and regional travel. Tabling events were held at several community events, including the Oak Park Farmer's Market, and at centrally located destinations.

Participants identified the following current walking and biking challenges along Stockton Boulevard: speeding vehicles, turning vehicles that do not yield, and narrow sidewalks and bicycle facilities. Participants suggested that the city implement more crossings and widen the sidewalks and existing bike lane on Stockton Boulevard. They also suggested adding more trees, parks, and destinations along the corridor to create a more inviting environment for pedestrians and to give the corridor a sense of place.

The two most frequent comments regarding driving on the corridor were suggestions to implement traffic calming measures to address incidences of speeding and red-light running along the corridor. Participants also mentioned that congestion during peak hour and parking are significant factors impacting the driving experience along the corridor. Several participants reported that they would consider using public transit as an alternative if there were transit-only lanes and stop amenities like bus shelters, benches, and schedule information.

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 and Demographics

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

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.

Challenges and ideas

Figure 30 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 must 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.

Mode	Comment themes		Quotes
	Challenges	Ideas	
Bicycling	 Poor/inconsistent bicycle facilities Cars don't look when turning Glass on roadway Dangerous to bike 	 Separated bikeways Bike routes connecting destinations Traffic calming measures 	"It feels way too dangerous to ride a bike here even though I would like to"
Walking	 Not enough crosswalks No shade Drivers don't stop for pedestrians/run red lights Speeding cars Feel unsafe walking (harassment and road conditions) 	 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	 Hard to cross street to transfer buses No shelter/protection from sun Stop locations are unclear Feel unsafe at bus stops Want light rail 	 Add light rail station Add shade trees Faster bus service Improve transit stops (benches, shelter, signage) Create a pedestrian overpass 	"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"
Driving	 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 	 More parking Expand resident parking program Add areas for pick-up/drop off Left turn signals 	"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"

Figure 30 Challenges and Ideas for Stockton Boulevard (N=292)

Additional detail on challenges and ideas by mode can be found in Appendix C.

Traveling on Stockton Boulevard today

Of the survey respondents, more than half of people visit the corridor five or more days per week, and the amount of people passing through without stopping verses people who stop at one or more places along Stockton was split down the middle.

Figure 31 shows that the majority of survey respondents (71%) drive to Stockton Boulevard today. Only 4% of respondents walked to Stockton Boulevard. While 18.5% of respondents said they used a bicycle or scooter to travel to their destination on Stockton Boulevard (Figure 31), only 10% said they used it to travel to another destination along the corridor.



Figure 31 How do you typically travel to your destination?

Changes to Stockton Boulevard

Survey respondents were asked to rank the top three things that would make Stockton Boulevard more attractive to them. Figure 32 shows that lower Stress Bikeways were by far the highest ranked improvement, with 97 people ranking it number 1.

Figure 32 Top Improvements Ranked



Most Important Improvements to Stockton Blvd (N=271)

More Consistent/Predictable Traffic Flow received the second most number 1 ranking (34 people) and Trees and Landscaping received the third highest amount of number one rankings (32 people). When you incorporate second and third place rankings, the top three improvements were Lower Stress Bikeways, Trees and Landscaping, and Wider Sidewalks/More Separation from Moving Traffic, respectively.

Figure 33 uses a weighted average to provide a detailed look at the rankings and calls out the improvements that received the most number 1 rankings².

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
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

Figure 33 Weighted Average of improvements and Top 5 ranked most important (N=271)

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% of drivers who voted More Consistent/Predictable Traffic Flow as their number one choice.

TRANSIT RIDER SURVEY

A transit rider survey was administered in English and Spanish on board SacRT Route 51 in July 2019 and yielded 358 responses.

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.

Origins and Destinations

Walking is by far the most popular way to reach the bus stop (Figure 34) — this held true across gender, race, and income. Figure 35 shows that 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

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.

responses. Of non-drive alone 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 34 How did you get to the bus stop?





5 ISSUES & OPPORTUNITIES

Figure 36 summarizes key issues and opportunities for the Stockton Boulevard corridor. These issues and opportunities will be explored in greater detail through the project's upcoming alternatives development and evaluation framework phases.

Figure 36 Key Issues and Opportunities

Торіс	lssue	Opportunity
Walking	 Long distances between marked/safe crossing opportunities, especially in Urban Campus and Suburban segments Poor yielding behavior at existing marked unprotected crosswalks in Traditional Grid segment Narrow sidewalks in some areas (to 5' in width) High pedestrian demand at Colonial Theater results in people spilling out into street Lack of buffer between sidewalk and vehicle travel lanes, especially in Suburban segment Many students walk to school and must cross Stockton Boulevard with no crossing guards At marked crossings, many have long crossing distances High number and density of driveways 	 Identify areas for additional mid-block crossings 14th Avenue to 21st Avenue identified in Pedestrian Master Plan as areas for improved or additional crossings Add signalization to existing marked unprotected crosswalks in Traditional Grid segment Create a pedestrian-focused zone from Broadway to 14th Ave Additional right-of-way exists beyond the outer edge of the sidewalk in many areas. This space could be repurposed to add buffer areas and/or expand existing sidewalks. Consider deploying school crossing guards at locations that are common student crossing points and exhibit safety concerns, such as Lemon Hill Avenue Shorten crossing distances with curb extensions, lane reductions, median crossing islands, or reduced corner radii As parcels redevelop, implement access management standards and consolidate drivewave
Biking	 Bike volumes are low to moderate, but consistent, along the corridor Existing bike facilities are narrow; 2-3 feet of the bike lane is often gutter, with an edge between the gutter and paved area There are no bike facilities north of Broadway Protected bike lanes identified in Bicycle Master Plan from Broadway to T Street 	 Widen existing bike facilities Low traffic volumes from Colonial Way to 21st Avenue present opportunity for roadway redesign Increase visibility of existing facilities, through green paint or other pavement markings through conflict points Add protected facilities from Broadway to T Street

Торіс	Issue	Opportunity
	 Bike lanes are dropped at intersections, the place with the most conflict points Debris in the roadway and poor pavement conditions make bicycling unpleasant 	 Explore protected bicycle facilities from T Street into Downtown Stripe bicycle lanes to and through intersections along and crossing Stockton Boulevard Conduct regular maintenance to keep street surface free of debris
Transit	 35% of stops along the plan corridor have no seating or shelter Transit stop amenities do not match boarding/alighting activity: Fruitridge, but southbound stop at Stockridge Plaza has no bench or shelter but high ridership Transit is difficult to use for people who have limited English proficiency 	 SacRT High Capacity Bus Corridor study likely to target Line 51 and Stockton Boulevard for improvements such as dedicated transit lanes, real-time schedule information, and service/frequency upgrades Upgrade stop amenities at key locations Consider stop consolidation to improve transit travel times Expand multi-lingual transit information to make SacRT service more welcoming and accessible – Cantonese, Vietnamese
Driving/Parking	 Heavy right turn volumes at Broadway and other locations Many segments have numerous closely spaced driveways and curb cuts Interest in adding on-street parking 14th Ave to Broadway Poor yielding behavior for right-turning drivers as people cross with green signal Increase in distracted driving Parking on sidewalks is common, especially during events around Colonial Theater Median limits left turn opportunities U-turns conflict with right turn on red movement 	 Enforce yielding behavior at locations with heavy turn volumes Implement access management to consolidate and close driveways where possible Explore on-street parking 14th Ave to Broadway Tighten up intersections to increase visibility and reduce conflicts Conduct safety awareness education campaign
Placemaking	 Lack of distinctive area identity / no sense of place Numerous vacant parcels Area under US-50 overpass is unpleasant and feels unsafe for walking and bicycling 	 Repurpose public realm to invest in streetscape amenities as many vacant parcels are redeveloped Add more pedestrian-scale street lighting Project with Stockton Boulevard Partnership and SACOG Civic Labs may provide opportunity to improve public amenities between 22nd Avenue and Jansen Drive County's Special Planning Area may offer zoning framework to improve public realm West side between 14th Avenue and 21st Avenue West side between Young Street and north of Lemon Hill Avenue

Торіс	Issue	Opportunity
		 Add lighting and public art to underpass Create a gateway around UC Davis or Broadway Add trees and landscaping
Safety and Street Design	 Excessive speed is the biggest safety issue, according to community feedback Drivers frequently run red lights Patrol officers see speeds of 50-55 mph in the Traditional Grid area People bicycle against the flow of traffic, and people riding Jump bikes are perceived to ride unsafely Light rail crossing is a safety hazard Poor lighting on roadway Personal security/homelessness Awkward and challenging intersections at T Street, Alhambra, Broadway, 14th Ave, 21st Ave, Fruitridge Ave, Dias Ave, and 47th Ave 	 Traffic calming measures including reduced lane capacity possible, especially in low- volume area from Colonial Way to 21st Avenue Pedestrian-scale lighting would improve safety by making people walking and biking more visible to people driving Increase enforcement of red light violations Target Stockton Boulevard Partnership security personnel on reducing homelessness in public areas Examine signal timing, geometry, and traffic volume usage at key intersections for design and operations adjustments



STOCKTON BOULEVARD CORRIDOR PLAN

Existing Conditions Appendices

November 2019



Stockton Boulevard Corridor Plan City of Sacramento

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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. .<u>https://www.scusd.edu/sites/main/files/file-attachments/sac-city-schools-wtrustees-36x48.pdf</u>

- 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.

Question	Summary of Responses	Notable Differences from Broader Community Survey Sample
What IDEAS do you have for improving the corridor?	 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?	 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?	 14 respondents visit the area 5 or more days per week Everyone comes to the Stockton Boulevard area at least once per month 	 Participants visit the plan area much more often
Do you typically travel THROUGH Stockton Boulevard or TO places on Stockton Boulevard?	 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?	 Viñh phát Market (Stockton and Lemon Hill Ave) is the most popular destination, followed by SF Market (Stockton and 65th Street, south of the plan corridor) and ARI Community Services (El Paraiso Ave, west of Stockton) 	 Top destinations for these participants are skewed to the south end of the plan 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?	 Top responses ranked by number of responses: Shopping and restaurants College/school (all identified ARI Community Services) Work/work-related Medical appointment 	 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?	 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?	 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 	 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	 The majority of participants drive between destinations in the plan area. Six others get rides from friends or family. 	

Figure 2 Survey Summary from Asian Resources Center

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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?	 Top choices in improvements for: Walking: More pedestrian crossings Wider sidewalks Better lighting Bicycling: Lower stress bikeways on Stockton Boulevard Better lighting Transit: Upgraded stop amenities Enhanced access to transit stops Driving/parking: Easier access to parking More or improved traffic signals Better lighting Placemaking Trees and landscaping Places to sit 	
Demographics of participants	Age Most participants are between ages 35 and 54 Gender Participants were split 50/50 male/female Race/Ethnicity Most participants selected Vietnamese, while 2 indicated Hispanic or Latinx and 2 indicated Chinese Language spoken at home 16 speak Vietnamese, 4 English, and 1 Mandarin/Cantonese/Other Chinese dialect Household income Many participants did not respond. Those who all indicated household incomes below \$50,000. 	 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 plan area, while the broader survey sample is concentrated in the central and northern areas.

Question	Summary of Responses	Notable Differences from Broader Community Survey Sample
	 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.

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.	High ridership transit location adjacent to retail node
	Sunday, June 30, 2019 9:00 a.m. – 11:00 a.m.	
South Sacramento Church, 7710 Stockton Boulevard	Sunday, June 30, 2019 8:00 a.m. – 10:00 a.m.	Just south of the plan area, this church hosts many community events and is a known community gathering spot

Figure 3 Community Pop-Ups

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

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.

<image/>
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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 helps 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

• 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 plan 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 drivethroughs, 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 Maptionnaaire, an online map-based survey platform that allows for locationspecific 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.

Mode	Comment themes		Quotes
	Challenges	Ideas	
Bicycling	 Poor/inconsistent bicycle facilities Cars don't look when turning Glass on roadway Feels dangerous to bicycle 	 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	 Not enough crosswalks No shade Drivers don't stop for pedestrians/run red lights Speeding cars Feel unsafe walking (harassment and road conditions) 	 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	 Hard to cross street to transfer buses No shelter/protection from sun Stop locations are unclear Feel unsafe at bus stops Want light rail 	 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"

Figure 6	Challenges and Ideas for Stockton Boulevard (N=	-292)
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Mode	Comment themes		Quotes
		 Create a pedestrian overpass 	
Driving	 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 	 More parking Expand resident parking program Add areas for pick-up/drop off Left turn signals 	"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"

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 plan 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)



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."

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)


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."

- "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 17 shows the comparison in age and race between survey participants and residents within the plan 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 plan area population. In terms of race, white

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

	Survey Respondents	Plan 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%			

Figure 17 Demographic Comparison, Survey Universe and Plan Area

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

[1] The plan 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 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 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 plan area (not shown on the map) around 65th Street and Florin Road.



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)



Improvement 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.

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

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

 $^{^{2}}$ Weighted 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.

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 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.









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.

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 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 secondlargest category, accounting for only 7% of the respondents.



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

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 plan 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).

	Survey Respondents	Plan 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%

Figure 37 Demographic Comparison, Transit Survey Universe and Plan Area

	Survey Respondents	Plan 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 plan 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)

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)

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 plan area has a relatively high pedestrian demand score, with parcels adjacent to the plan 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 plan 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 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

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 plan 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 Plan.
- 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 plan 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.

Exhibit 3: Recommendations for Installing Marked Crosswalks and Other Needed Pedestrian Improvements at Uncontrolled Locations

(Adapted from FHWA ⁰⁰) (Sheet 1 of 2)																
	≤ 9,000 ADT			т	> 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	с	с	Р	N	с	с	Ρ	N	с	с	Р	N	с	Р	N	N
3 Lanes	с	с	Ρ	N	с	Р	Ρ	N	Ρ	Ρ	Р	N	Ρ	Ν	N	N
4 or More Lanes with Raised Median	с	с	P	N	с	Ρ	N	N	Ρ	Ρ	N	N	Ν	N	N	N
4 or More Lanes No Raised Median	с	Ρ	N	Ν	Ρ	Р	Ν	N	Ν	N	N	N*	N	N	N	N*

Figure 47 Pedestrian Crossing Decision-making at Uncontrolled Locations

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.

* CA MUTCD 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.

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

Figure 48 Design Criteria
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)	City Street Design Standards 15.7.8	
	2' Minimum at intersections set back 5' from crosswalk, major street intersections only (County)	County Street Standards 4-12	
U-Turns	44' Clear Width from right side of left turn lane required (City and County)	left City Street Design Standards 15.7.2 ty) County Street Standards 4-3.F	
Sight Distance at Intersections	Conform to Caltrans HDM 201 and 405 (City)	City Street Design Standards 15.9	
	Conform to Figure 4-18 for controlled intersections. Conform to County Section 4-15 for uncontrolled intersections. (County)	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)	City Street Design Standards Plate 15-1	
	Minimum spacing of 150' between driveways and no closer than 125' to intersection corner returns (County)	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)	City Street Design Standards 15.6.7, 15.7.6	
	5' Minimum exclusive of curb and gutter (County)	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	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 15-1 an use Ing at all			
	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			

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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)	City Street Design Standards Table 15.18
	Minimum Turnout Length = 125' with 65' entry taper, 100' exit taper	County Street Design Standards Fig. 4-10
	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)	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 calls 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.



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



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 onstreet 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.

Roadway Context		All Ages & Abilities			
Target Motor Vehicle Speed	Target Motor Vehicle Volume (ADT)	Motor Vehicle Lanes	Key Operational Considerations	Bicycle Facility	
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	Pedestrians share the roadway	Shared Street	
≤ 20 mph	≤ 1,000 - 2,000	single lane one- way	< 50 motor vehicles per hour in the peak direction at peak hour	Bicycle Boulevard	
	≤ 500 - 1,500				
≤ 25 mph	≤ 1,500 - 3,000	Circle lane and	Low curbside activity, or low congestion pressure	Conventional or Buffered Bicycle Lane, or Protected Bicycle Lane	
	≤ 3,000 - 6,000	direction, or single lane one-way		Buffered or Protected Bicycle Lane	
	Greater than 6,000			Protected Bicycle Lane	
	Any	Multiple lanes per direction			
Greater than 26 mph [†]		Single lane each direction	Low curbside activity, or low congestion pressure	Protected Bicycle Lane, or Reduce Speed	
	≤ 6,000	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	

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

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 plan 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.







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















Figure 59 Volumes by Lane at Fruitridge Road, 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.



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 pedestrianinvolved 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.



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.



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 plan 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.



Figure 69 Peak Hour Intersection Traffic Counts



Peak Hour Intersection Traffic Counts (continued)



Peak Hour Intersection Traffic Counts (continued)



Peak Hour Intersection Traffic Counts (continued)

FREQUENTLY ASKED QUESTIONS

STOCKTON BLVD CORRIDOR PLAN

Open The State of Bus Rapid Transit on Stockton Blvd?

The City's project team worked closely with SacRT (Sacramento Regional Transit) staff throughout the effort. Route 51 is the predominant route on Stockton Blvd runs bus service approximately every 15-minutes. A study produced by SacRT in August 2020 shows the greatest transit need lies in improved pedestrian crossings to access bus stops along with enhanced bus stop amenities including bus shelters, seating, and lighting - all of which are captured in this Plan. The shared bus/bike lane recommended in this plan provide a chance for both the City of Sacramento and Regional Transit to see how ridership responds to faster transit times with dedicated transit lanes.

(C) How will the proposed changes impact driver travel times on Stockton Blvd?

Traffic modeling was used to understand how long it will take to drive the whole corridor compared to today. The design has minimal impacts on travel time - a typical trip in a car will take less than 2 minutes longer.

Direction	Existing (min)	Future (min)	Difference (min)	% Change (min)
Northbund	17	18.75	1.75	10%
Southbound	15	16.41	1.41	9%

(C) Why does the plan not include separated bikeways that are suitable for people of all ages and abilities?

Stockton Blvd has so many demands on this corridor – transit, walking, bicycling, freight, emergency vehicles, and private automobiles. There is not enough space to construct all these desires, and the City does not view widening Stockton Blvd as a viable option. The challenging task in the design was to make difficult tradeoffs to best meet project goals within the existing roadway space.

The plan proposes providing more enhanced bikeways in each segment of the corridor than what exists today. The context of Stockton Blvd changes over the 4-miles of study area from urban, to medical campus, to suburban. The proposed bikeway type also changes with the context.



(C) Why does the Plan not include widened sidewalks?

Pedestrian accommodations are enhanced throughout the corridor, including widened shared-use paths. The enhancements include more streets trees, pedestrian-scale lighting, more pedestrian crossings, and wider shared-use paths. Greater than 2 miles of the 4-mile corridor will have a shared-use path added where it's wide enough for bikes and pedestrians to share.



What are the costs to implement the Plan and when will construction begin?

A project of this size and undertaking is a large investment and will likely be constructed in phases. The total corridor cost is estimated at \$80.3 million (2021 dollars). With the conclusion of this Planning phase, the City of Sacramento will seek funding for Preliminary Design and Environmental Clearance which is estimated to cost \$1 million. Final Design Documentation follows which prepares for Construction. Construction will happen in phases as opportunity and grant funding become available. It could be 7-15 years before construction happens on the first phases. (See page 44 of the Plan for more details.)

