ENVISION BROADWAY IN OAK PARK

Approved by Sacramento City Council on March 10, 2020

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Special thanks to the Oak Park Neighborhood Association, Oak Park Business District, and WALKSacramento for your contributions to the Envision Broadway vision, collaboration, and implementation.

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CONTENT


Unseen Heroes

1 INTRODUCTION

The Envision Broadway in Oak Park Complete Street Plan develops a long-term vision for multimodal transportation along Broadway from Franklin Boulevard to Martin Luther King Jr. Boulevard with consideration of the needs of businesses, visitors, and residents living in and near Oak Park. The study is part of a comprehensive effort by the City of Sacramento to prioritize safety and make the entirety of Broadway a more livable and vibrant street.

GUIDING PRINCIPLES

Multimodal Applications

Which improvements will improve conditions for pedestrians, bicyclists, transit riders, and drivers?

Neighborhood Integrity

What constraints and opportunities exist on this portion of Broadway?

Community Driven

How are people using the corridor today?

Outcome Focused

How can the City position this project for implementation?

ABOUT THE PROJECT

The Broadway corridor in Oak Park hosts a vibrant and diverse mix of land uses. The study area includes neighborhood-serving retail, non-retail businesses, single and multi-family housing. This stretch of the corridor is four through travel lanes and serves the region by carrying almost 15,000 vehicles per day including public transit. Broadway lacks infrastructure for people riding bicycles and can be challenging for pedestrians and drivers alike to get from one side of the street to the other.

The Envision Broadway Project is complemented by adjacent transportation studies (some of which are funded for implementation) including the Lower Broadway Complete Street plan to the west, and the Vision Zero Top Five Corridor Project on Broadway to the east. The goals of these projects align to create a comprehensive multimodal transportation corridor, or Complete Street, connecting several Sacramento neighborhoods for users of all ages and abilities.

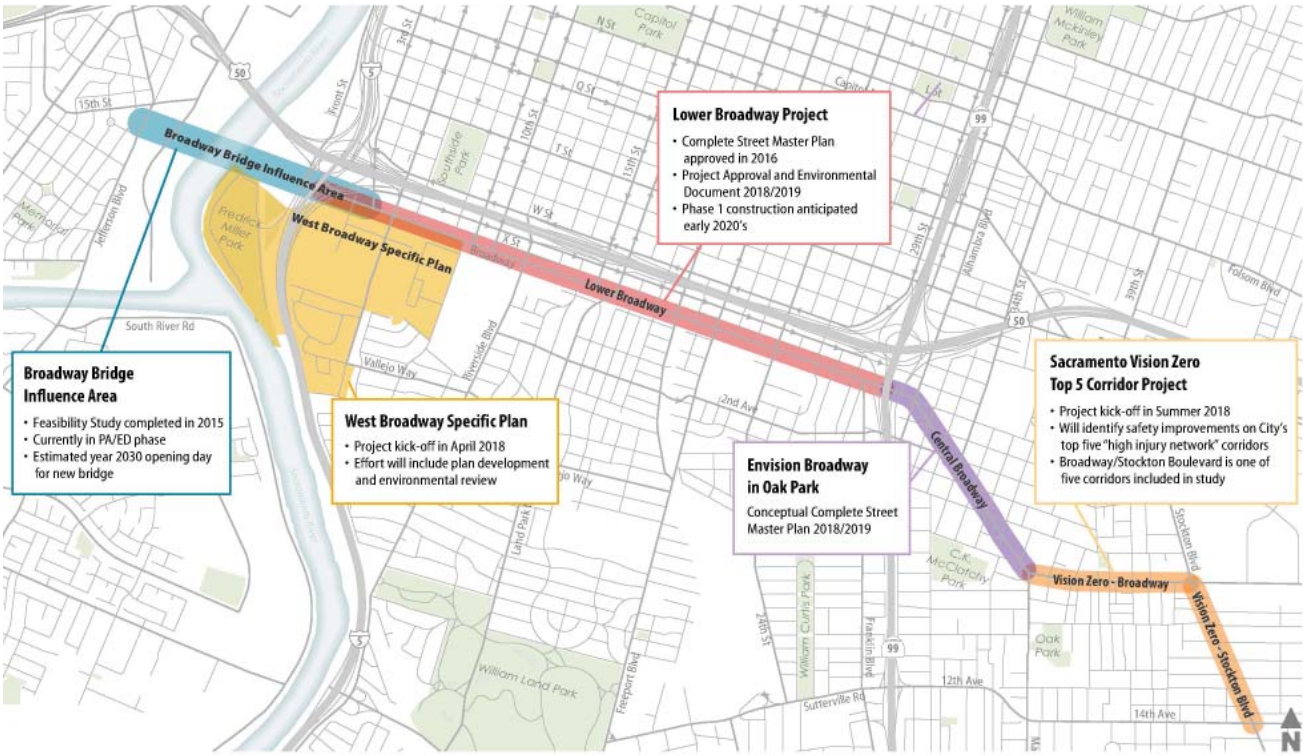


FIGURE 1: CITY OF SACRAMENTO PROJECTS ALONG BROADWAY

NEIGHBORHOOD HISTORY

PG&E STREETCAR ON BRORADWAY AT 34TH ST., CENTER FOR SACRAMENTO HISTORY, 2006-017-023

The Broadway corridor bisects the neighborhood of Oak Park. Established in 1887 on a 230-acre ranch, Oak Park was directly connected to downtown by Broadway, then known as Sacramento Avenue. In the early 1900s the demographics of the neighborhood were primarily white working-class families. However, this changed following a national trend of connecting property values with occupant's race when the West End in Downtown Sacramento (a community of immigrants, Japanese families, and sizeable African American community) was marked as a blighted area slated for redevelopment in 1950. The resulting displacement of residents, coupled with racially restrictive covenants that prohibited the purchase, lease, or occupation of property by certain minorities, led to a large influx of African American residents to Oak Park, one of the few places they could live.

Over the years following, the Oak Park neighborhood suffered disinvestment that restricted access to opportunity for many of its residents. After World War II, streetcar lines ceased operation to Oak Park, most notably, along Broadway. The construction of Interstate 50 and Highway 99 further isolated the neighborhood from the rest of the city.

In the 1970s the Sacramento Housing and Redevelopment Agency established the Oak Park Redevelopment Project Area with the goal of catalyzing economic revitalization in the Oak Park community. The program consisted of several projects including revitalizing the Guild Theater and Woodruff Hotel. While the Redevelopment Project Area had a positive impact on the local economy, especially along the Broadway corridor, it also resulted in a rising cost of living in the area.

Census data shows both median household income and housing costs in Oak Park rising steadily from 2000 to present. Since 2010, new businesses and housing projects have located along the Broadway corridor, driving renewed economic vitality and bringing more outside interest to Oak Park. Growing investment in Oak Park, as well as a citywide housing supply shortage, has resulted in rapidly increasing property values and rental costs in the neighborhood. These increasing costs and displacement of long-term residents has led to concern that new revitalization efforts may be further perpetuating gentrification.

EXISTING PLANS

The Oak Park Neighborhood Association (OPNA) and the Oak Park Business District (OPBD) both have created visions for the neighborhood and the corridor.

OPNA is a community building organization that serves as a resource to inform and advocate for quality of life in the Oak Park neighborhood. Central to their mission is advocacy for safe, multimodal transportation options including walking, biking, driving, and riding transit.

In early 2017 the Oak Park Neighborhood Association collaborated with WALKSacramento, to create the Oak Park Active Travel Study funded by the California Endowment in order to address traffic safety and mobility concerns expressed by residents. WALKSacramento is a community-based organization that works to advance health, safety, and sustainability throughout Sacramento's neighborhoods by advocating for safer, more walkable and bikeable communities. WALKSacramento conducted two multi-generational walking audits in Oak Park. The study identified opportunities to enhance the neighborhood with better facilities for people walking and biking, traffic calming, and better transit stops.

OPBD is a business assessment district that supports marketing, special events, maintenance, security services, and general improvement projects in Oak Park. OPBD drafted the Oak Park Business District's Streetscape Concept Plan that took an inventory of the various streetscape elements along the corridor within the public right of way. The plan focused on prioritizing the installation and maintenance of various enhancements on the corridor. High priorities included new trash cans and accommodations for special events along corridor. Medium priority projects included bike lanes and additional bike racks, better signage, and improved transit facilities.

The Envision Broadway in Oak Park project was able to build on relationships with the Neighborhood Association and Business District to ensure that the project remained community driven and focused on improving mobility and safety for all modes of transportation.

PROJECT GOALS

Building from the goals identified by the community voices heard during listening sessions conducted as part of this planning effort along with the citywide goals from the General Plan, Bicycle Master Plan, and Vision Zero Action Plan, the following goals are guiding the Envision Broadway effort:

1. Improve mobility for pedestrians, bicyclists, transit users, and drivers.
2. Improve safety for all travel modes.
3. Enhance the sense of place.
4. Strengthen neighborhood cohesiveness.
5. Support economic development.

FIGURE 2: STUDY AREA

THE BROADWAY CORRIDOR

Broadway is a primary connection between Oak Park, other surrounding neighborhoods, and Downtown Sacramento. To understand the neighborhood context of the corridor, the boundaries of this study in Oak Park extend from U.S. Route 50 to the north, Stockton Boulevard to the east, Franklin Boulevard to the west and Martin Luther King Jr. Boulevard to the south.

2 | THE CORRIDOR

Broadway through Oak Park is typically four lanes of traffic with on-street parallel parking. In about half of the project area there is a five-foot wide median with iconic palm trees lining the center of the street. Drivers turning left wait in the inside through lane to turn left at most of the intersections. Vehicular movements such as this can create congestion, abrupt turning decisions, and can contribute to with a potential for collisions.

FIGURE 3: EXISTING CROSS SECTION

The corridor currently lacks dedicated space for bicyclists. West of 36th Street the sidewalks are typically 15′ wide with planter strips and tree wells, in various states of maintenance. East of 36th Street, Broadway lacks raised medians, and has more narrow, 5′ attached sidewalks with rolled curbs. OPBD has added banners, benches, and trashcans to help activate the businesses along the corridor.

Sacramento Regional Transit (Sac RT) has ten bus stops along the project corridor that range from a sign to a full shelter to accommodate the hundreds of riders that ride Routes 51 and 68 from Oak Park.

The most notable feature of the corridor is that Broadway diagonally intersects the city's gridded street network. This condition creates unique and confusing intersection configurations along the corridor. Many of the intersections have very skewed turning angles that affect the ability for drivers to see oncoming users, pedestrians, bicycles, and cars alike. There are many multi-legged intersections that are difficult for users to navigate.

Over time, some streets have been partially closed or converted to one-way on a case by case basis without a comprehensive corridor-wide vision.

COLLISION HISTORY

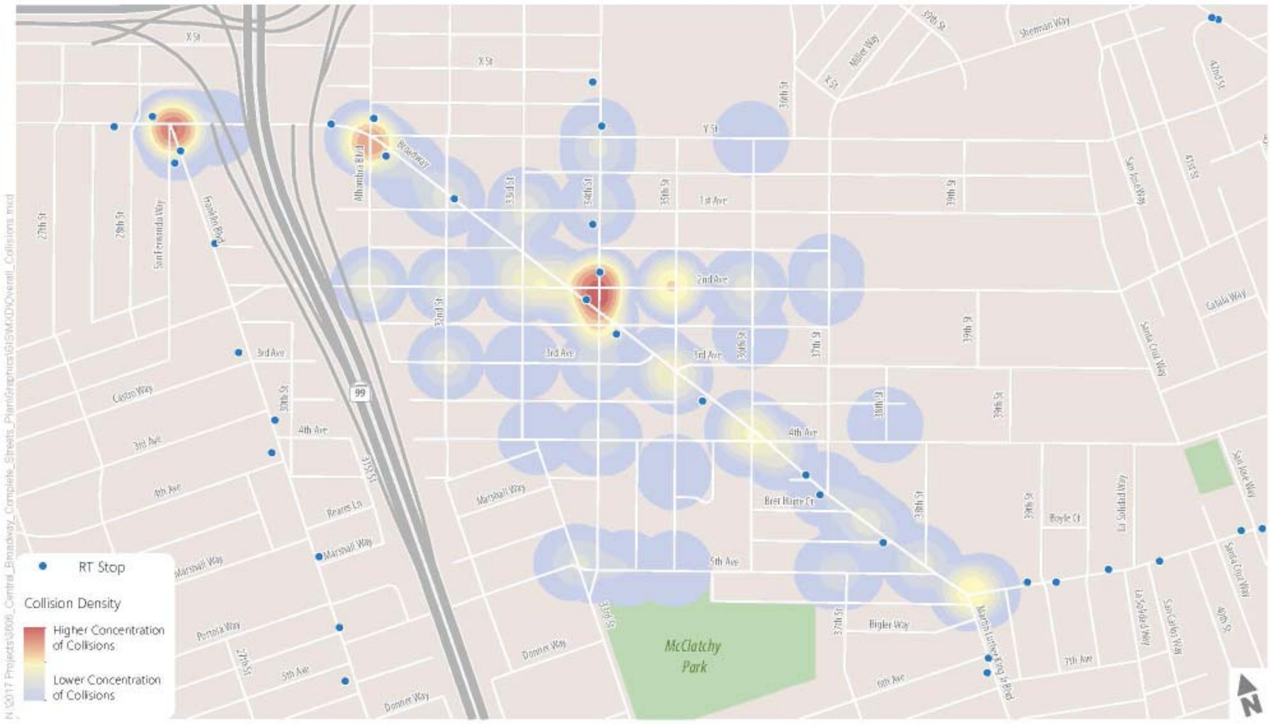


FIGURE 4: COLLISION DENSITY MAP

Between 2009 and 2017, a total of 177 collisions were reported in the study area. The figure above displays the collision density throughout the study area, with higher concentrations of collisions in red or yellow and lower concentrations in blue. This figure highlights the highest concentration of collisions in the study area at the skewed intersections.

There were no fatal crashes reported during the reporting period, but several collisions resulted in a serious injury. This figure also highlights that the highest concentration of collisions were at a trio of intersections comprised of Broadway /34th Street/ 2nd Avenue. These collisions were primarily between two cars.

PEOPLE WALKING AND RIDING BICYCLES ON THE BROADWAY CORRIDOR

Pedestrian travel is accommodated along Broadway with mostly continuous large sidewalks, separated by landscaped planters and trees that provide shade from Alhambra Boulevard to 36th Street. South of 36th Street along Broadway, the sidewalk is attached with a rolled curb that offers less separation and comfort for people walking. The tree canopy varies along the corridor.

Activity counts were performed at three key intersections along the corridor to understand the amount and time of day that pedestrian activity happens within the project area. It was observed that there was a large number of students using the corridor to get to and from school in the morning as well as in the early afternoons.

There are relatively few existing bicycle facilities within the study area, except for the key east/west route on 2nd Avenue. Currently, Broadway lacks any infrastructure

for bicyclists and only the most confident riders are using the corridor. There are about 1,300 feet of discontinuous Class II bicycle lanes on both sides of Broadway near Martin Luther King Jr. Boulevard, with the striping starting and stopping abruptly midblock and drivers occasionally parking in the bike lane. Planned buffered bike lanes are being added to Broadway to the west of Franklin Boulevard.

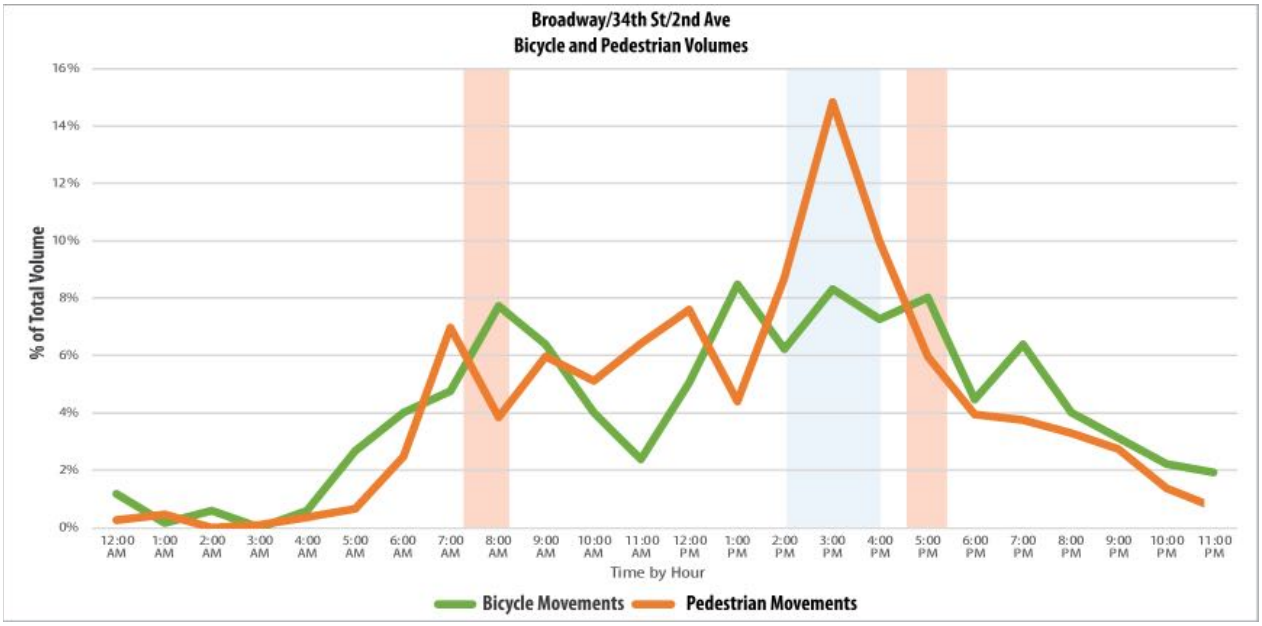


FIGURE 5: WEEKDAY PEDESTRIAN AND BICYCLE VOLUMES

TRANSIT

There are two transit lines that run along Broadway in Oak Park, the 51 and the 68 bus routes. Route 51 is one of the region's most utilized routes and makes nine stops within the project limits. Route 68 travels on Martin Luther King Boulevard, Broadway, and 34th Street with 5 total stops within the project limits.

In mid 2019, SacRT completed their Sac Forward route optimization study. Changes were made to the Route 51 by improving Saturday frequency to 20 minutes from 9:30 a.m. to 12:00 p.m., adding Saturday trips and improving Sunday/Holiday frequency from 30 to 20 minutes from 9:30 a.m. to 4:30 p.m.

Route 68 was also extended south to connect to Florin Town Center and Consumnes River College. Two southbound trips were added to improve weekday evening frequency to 30 minutes and improve Saturday frequency to 30 minutes. These service enhancements may further increase the number of bus riders traveling along the corridor.

Bus stop amenities vary along Broadway including several only with signposts, some with benches, and few with shelters.

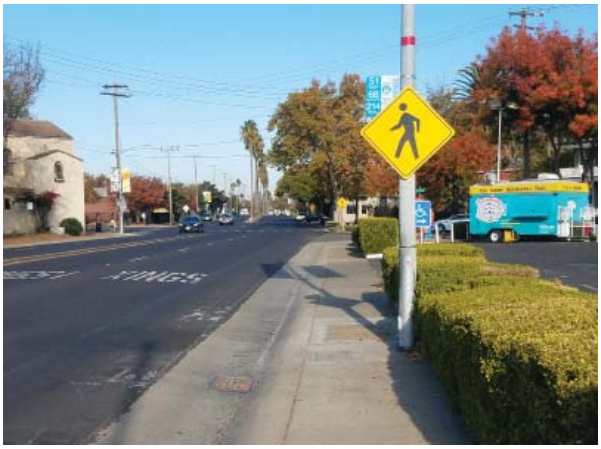


FIGURE 6: BUS STOP BOARDINGS (SOURCE: SACRT)

SACRAMENTO REGIONAL TRANSIT

According to SacRT ridership data, westbound busses constitute 1% of vehicles on Broadway but carry 13% of daily traffic and 19% of peak hour traffic.

3 OUTREACH

The Envision Broadway in Oak Park team engaged with the community from the beginning of the project, at which time the team met with the leaders of the Oak Park Neighborhood Association and the Oak Park Business Associations to identify an effective outreach strategy. The team attended neighborhood and business associations' regularly scheduled meetings to give updates on the project to their members and boards. In addition, the City of Sacramento hosted numerous pop-up at community events and community workshops that engaged with over 200 members of the Oak Park community. Summaries of the outreach events can be found in the appendices.

Pop-ups at Community Events

In May and June 2018, the community visited pop-ups at various locations including the Oak Park Farmer's Market at McClatchy Park, and First Friday in Oak Park with the goal of learning how the community uses the corridor today.

Guided Open House

On November 7, 2018, the community attended the guided open house, at the Sacramento Food Bank. Five information stations allowed attendees to review and provide input on design themes and understand the potential trade-offs.

Collaborative Community Workshop

On May 30, 2019, the project was part of the Let's Move event at McClatchy Park engaging stakeholders, visitors, and community members who travel on and live near the Broadway Corridor. They provided input on the preferred concept.

FIGURE 7: COMMUNITY OUTREACH RESULTS

THE BROADWAY CORRIDOR EXPERIENCE

At the pop-up events, the community rated their experiences travelling along Broadway by different modes.

KEY TAKEAWAYS FROM THE PUBLIC OUTREACH

INTERESTING PLACE TO WALK

The corridor is a very interesting place to walk and many residents enjoy walking to the local businesses and along the corridor.

TRANSIT SUPPORT

Sacramento Regional Transit's Route 51 is highly used on the corridor and the community found taking the bus very efficient and easy to do.

HARD TO CROSS

Most people felt unsafe trying to cross Broadway at the skewed intersections along the corridor on foot, by bike or even while driving.

HIGH-STRESS BICYCLING

Only the most experienced bicyclists felt safe riding their bicycles along Broadway. Many in the community found less direct routes through Oak Park.

PRESERVE PARKING

Many of the attendees voiced the need for additional on-street parking in support of local businesses

ICONIC PALM TREES

The community identified the palm trees as key contributing elements of the corridor's identity that helped distinguish Broadway in Oak Park.

2ND AVENUE DEMONSTRATION PROJECT

As part of the Envision Broadway in Oak Park project, the City is considering closing the portion of 2nd Ave. between 34th Street and Broadway to vehicle traffic. The City of Sacramento received a TDM Mini Grant from Sacramento Area Council of Governments (SACOG) to demonstrate this closure for a short period of time, study the impact, and collect community feedback.

All three streets that form this triangle (2nd Ave., 34th St. and Broadway) are part of the High Injury Network identified in the Vision Zero Action Plan. The High Injury Network is comprised of the corridors throughout the city with the highest levels of fatal and serious crashes for pedestrians, bicyclists, and motorists.

A review of the collisions at this specific location revealed that 60% of the collisions involved a vehicle travelling east on 2nd Ave. and a vehicle travelling north on 34th St. The project will strive to reduce the number of collisions at this location by eliminating the through eastbound vehicle movement on 2nd Avenue.

From September 26th through 29th, 2019 the City temporarily closed 2nd Avenue to vehicles. Once the street is permanently closed to vehicle traffic, there may be additional opportunities for placemaking and activation. Nearly 200 community members participated in the demonstration by visiting the project site in person, or by participating in the online survey.

SURVEY RESULTS

FREQUENCY

When asked how often they travel through the area, responses from the community were...

- 47% daily
- 26% more than once a week
- 5% once a week
- 11% more than once a month
- 11% once a month or less

COMFORT

If the portion of 2nd Ave. between 34th St. and Broadway were closed to vehicle traffic, respondents would feel...

- 64% more comfortable
- 24% about the same
- 11% less comfortable

4 DESIGN CONCEPTS

Based on priorities identified by the community, the team evaluated existing conditions and developed three corridor concepts that highlighted key themes. The community was invited to identify priorities based on the tradeoffs required to accommodate these priorities within the public right of way.

Buffered Bike Lanes

Buffered bike lanes are conventional bicycle lanes paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane.

Shared Bus-Bike Lanes

Shared bus-bike lanes can accommodate both modes at low speeds and moderate bus headways, where buses are discouraged from passing, and bicyclists pass buses only at stops.

Road Diet

A road diet involves narrowing travel lanes or eliminating lanes to provide more space for sidewalks and bikeways. Commonly, reducing from four lanes to three, with one lane in each direction and a center turn lane.

CONCEPT 1 - IMPROVED MEDIAN AND BIKE LANES

The first design concept centered around providing equivalent access for automobiles and busses but improving the roadway to make it better for people walking and riding bicycles. The parking would be removed along the entire corridor to provide enough room to accommodate a buffered bike lane. The existing sidewalk, curb, and gutter would remain, preserving the pedestrian environment along the frontage. The travel lanes would be narrowed slightly to help calm traffic and provide enough room to preserve the palm trees and widen the median to accommodate left turn pockets and pedestrian refuge islands. This improvement would make intersections safer for pedestrians and vehicles turning left.

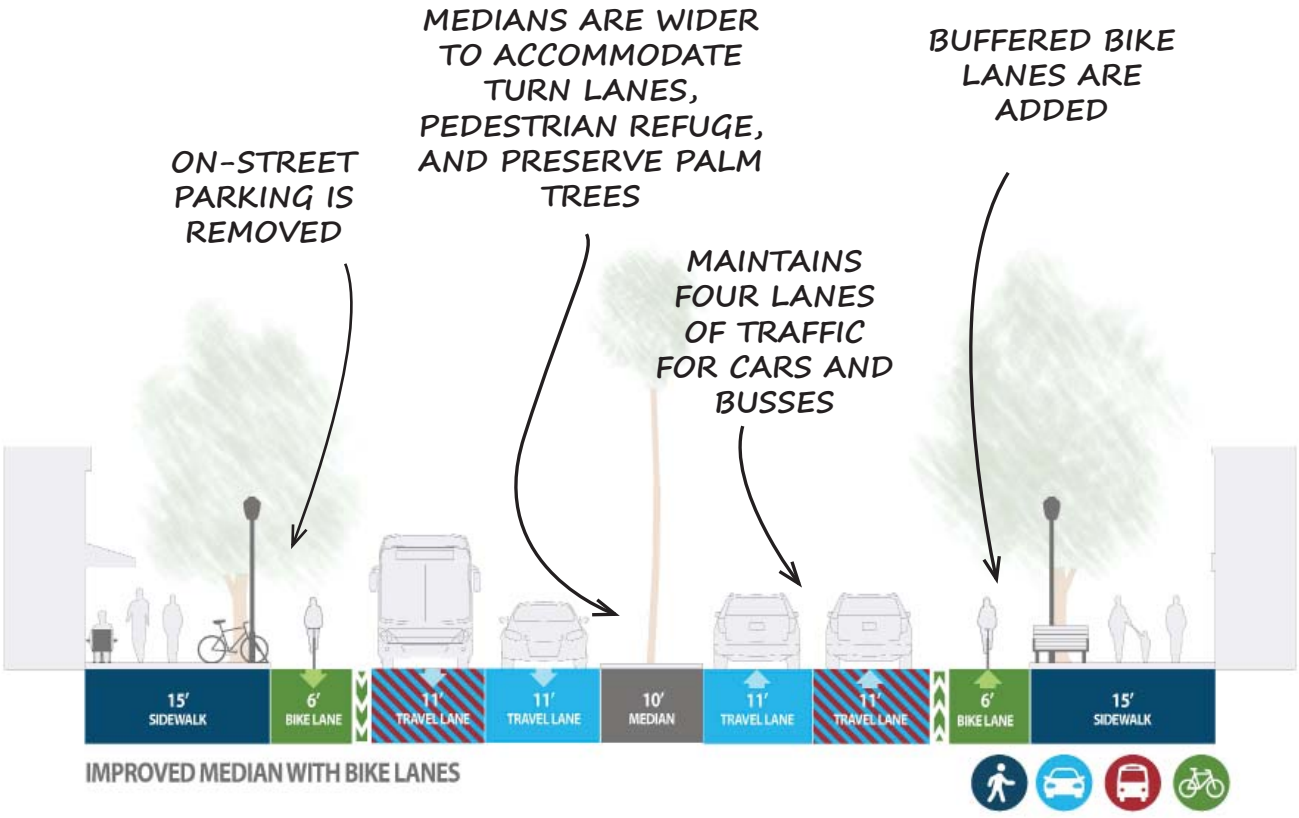


FIGURE 8: CONCEPT 1 CROSS SECTION

CONCEPT 2 - BUS PRIORITY LANES

The second design concept focused on the success of transit Route 51 and helps improve transit operations during congested periods with a dedicated shared bus and bike lane. The bus lane would restrict other cars to the inside lane, unless making a right hand turn. Medians would be widened similarly to the first concept, providing left turn pockets and room for pedestrian refuge islands at midblock crossing locations. This concept preserves the on-street parking but requires that bicycles share the transit lane.

Shared bus-bike lanes have been developed in other communities with mixed success. The frequency of both types of users and the signal operations will control the number of potential conflicts between the people riding bikes and the busses travelling down the corridor. The lane also creates a potential enforcement issue if typical drivers use the lane, negating the benefit to transit vehicles.

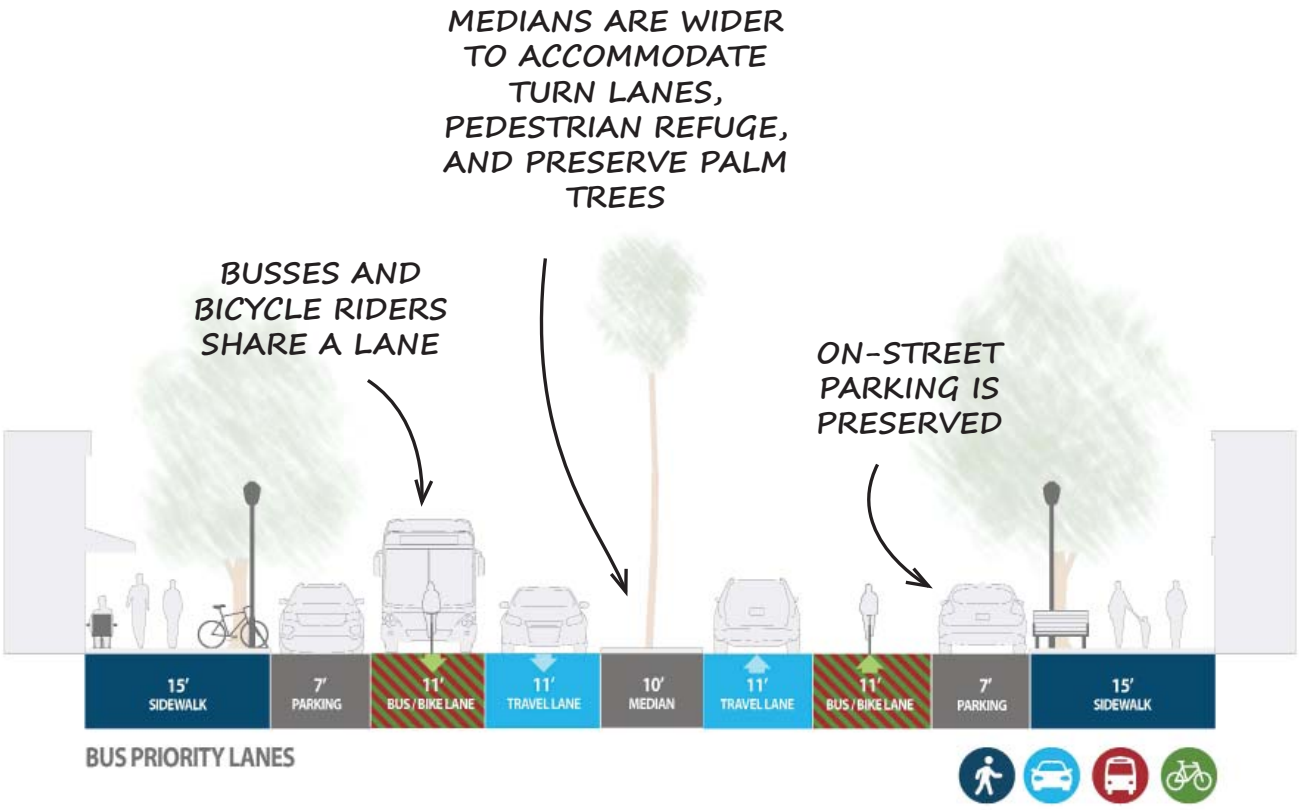


FIGURE 9: CONCEPT 2 CROSS SECTION

CONCEPT 3 - ROAD DIET WITH BUFFERED BIKE LANES

The third design concept focused on maintaining on-street parking and providing lower stress buffered bike lanes along the corridor. The concept reduces the number of travel lanes in each direction, a road diet, and utilizes the pavement for the buffered bike lanes and a wider painted median. The median would be utilized as a two-way left turn lane, or left turn pockets at signalized intersections.

The ability to remove the left turning vehicles from the single through lane will enable to corridor to operate adequately during peak periods. Transit vehicles would share the single travel lane with automobiles and would experience additional delays during congested times. In addition to the road diet, the trade-off for this scenario is the removal of the existing raised medians and palm trees along the majority of the corridor.

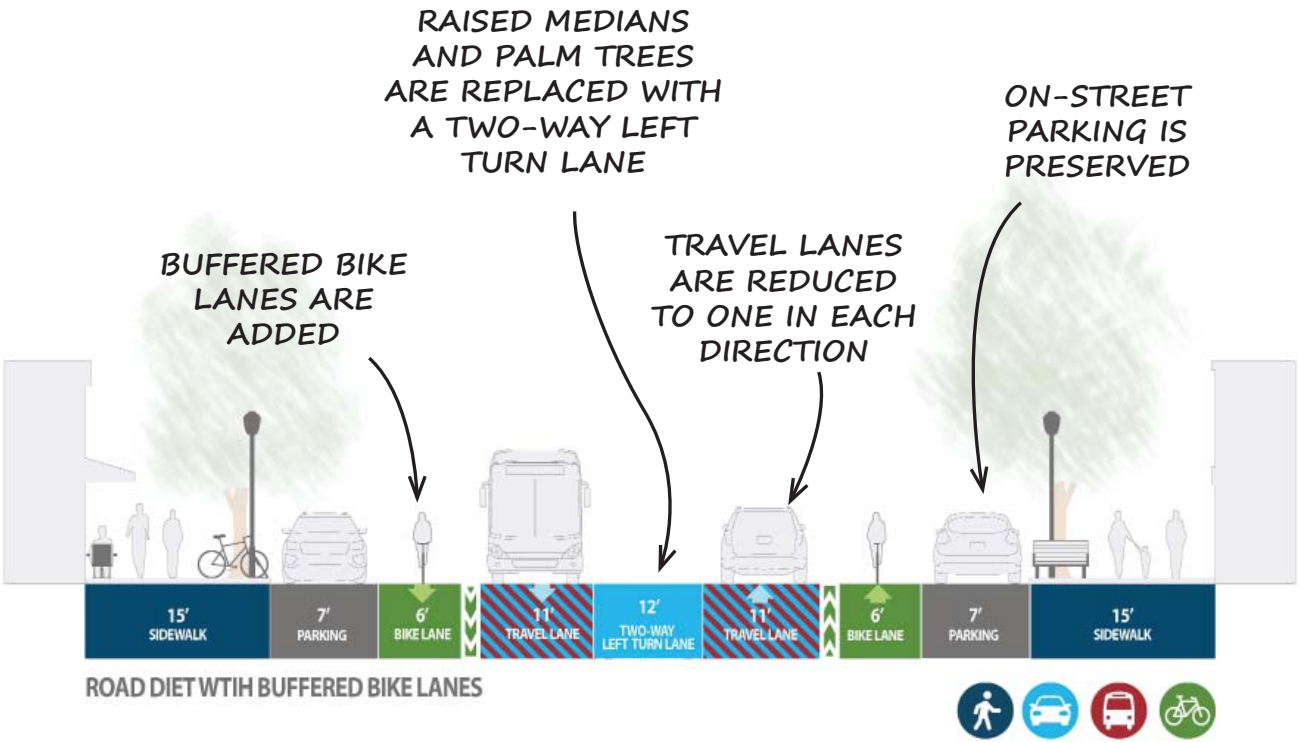


FIGURE 10: CONCEPT 3 CROSS SECTION

3 PREFERRED CONCEPT PLAN

Based on stakeholder feedback, a preferred complete street concept borrowed from different components of the various design concepts presented. The preferred concept includes meeting the community objectives of a neighborhood friendly boulevard along Broadway with the focus on people riding bicycles, transit efficiency, and automobile access and parking by providing continuous buffered bike lanes, maintenance of on-street parking, and traffic calming resulting from the removal of a travel lane.

Key attributes of the corridor are maintained. Many of the existing palm trees are preserved, with the opportunity to add new trees to the corridor. Existing sidewalks are enhanced and the frequency of controlled pedestrian crosswalks is increased. The following pages highlight the key features of the preferred concept.

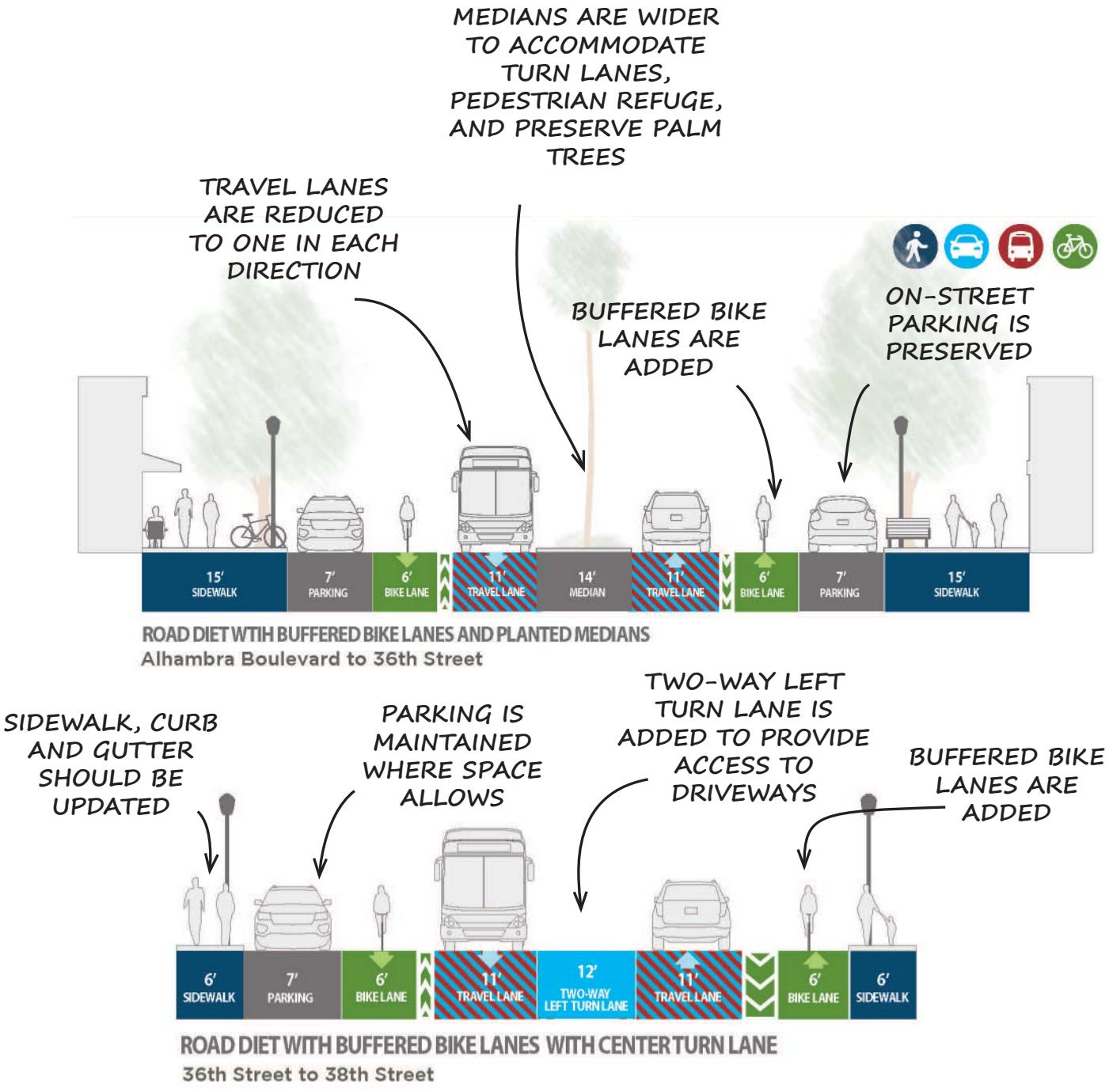


FIGURE 11: PREFERRED CONCEPT CROSS SECTIONS

FIGURE 12A: PREFERRED CONCEPT LAYOUT

FIGURE 12B: PREFERRED CONCEPT LAYOUT

FIGURE 12C: PREFERRED CONCEPT LAYOUT

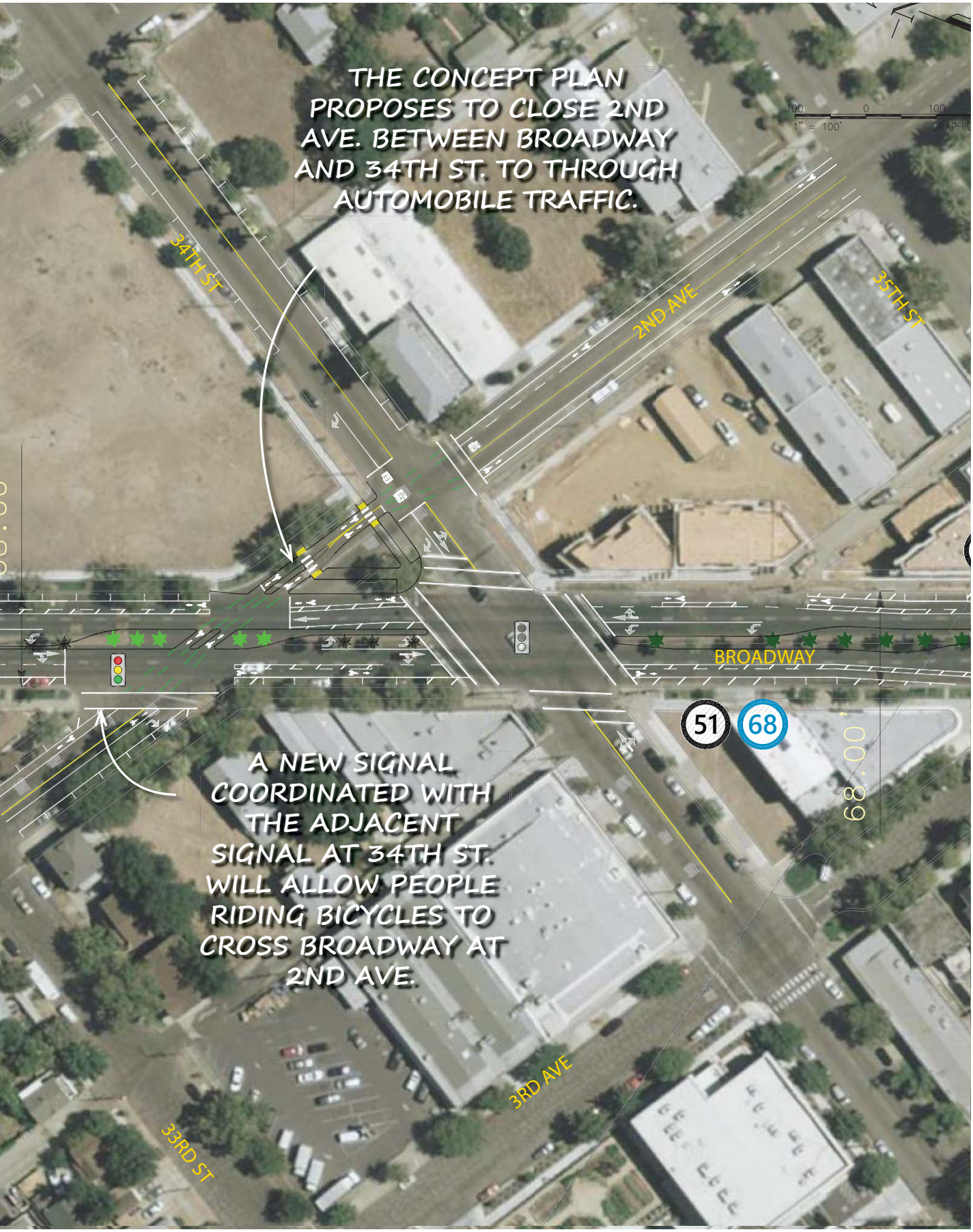


FIGURE 12D: PREFERRED CONCEPT LAYOUT

FIGURE 12E: PREFERRED CONCEPT LAYOUT

FIGURE 12F: PREFERRED CONCEPT LAYOUT

FIGURE 12G: PREFERRED CONCEPT LAYOUT

FIGURE 12H: PREFERRED CONCEPT LAYOUT

One of the goals of the Envision Broadway plan is to enhance economic activity along the corridor.

ECONOMIC CASE STUDIES OF MULTIMODAL IMPROVEMENTS

The project team conducted a review of other cities that have analyzed the economic effects of reconfiguring traditionally auto-centric corridors to include a greater level of pedestrian, bicycle, and/or transit accessibility. These cities include New York, Toronto, Vancouver, San Francisco, Los Angeles, and Salt Lake City.

Much of the published economic research focuses on the impact of multimodal transportation improvements on local business revenues and commercial real estate performance. At least one study, however, also evaluated changes in the number of customers, visitor spending, and visitor frequency.

It is important to note that each Complete Street project occurs on a street or corridor with a unique combination of existing businesses and land use mixes, and the changes to the transportation network were contextual to each city's need. Broad trends from these studies regarding complete street improvements should be viewed as an "indicator" of the range of potential impacts for Broadway.

General indicators show that Complete Street projects allow better access to retail and commercial uses for the surrounding neighborhood and creates a sense of place that draws people from the surrounding urbanized areas. The success of the walkability of the current Broadway core will be enhanced even further by calming traffic, improving crossings, and providing low-stress bicycle access.

It is anticipated that sales will increase with higher visitor frequency and increased spending based on the case study trends. It is recommended that the City work with the Oak Park Business Associations to perform business surveys before and after construction of the complete street project to better understand the economic effects of the project.

Baseline economic data should be collected prior to project implementation along the Broadway. OPBD may act as a liaison for a comparative economic analysis.

SUMMARY OF ECONOMIC METRICS

BUSINESS SALES

New York City, Los Angeles, Salt Lake City, San Francisco, Vancouver

Year 1 - Up by 14-39%, but down by 9-55% in 2 cities
Year 2 - Up by 20-77%
Year 3 - Up by 47-102%
Overall - Up by 9-172%

SALES TAX REVENUES

Los Angeles

Sales tax revenues rose by 51%

VACANCY

New York City, Toronto

Commercial vacancies down between 47-49%

CUSTOMER COUNTS

Toronto

Year 1 - 21-58% of businesses experienced 100+ customers on Saturday
Year 2 - 62-81% of business experienced 100+ customers on Saturday

VISITOR SPENDING

New York City, Toronto

Year 1 - Up 9-13% Spending over $100/visitor/ week
Averages by mode:
Cyclists spend $163/week
Walkers spend $158/week
Drivers spend $143/week

VISITOR FREQUENCY

Toronto

Year 1 - Visitors increased frequency up to 3 more times per month

MOBILITY IMPACTS AND IMPROVEMENTS

Common concerns about road diets are related to added congestion and travel time for people driving. This project studied the safety and mobility impacts of the preferred concept for those traveling along the corridor.

People driving along the corridor today experience very little traffic congestion, with a slight increase in congestion and delay in travel time during the evening peak commute time. This delay can be attributed to decreased speeds, additional traffic signals, and congestion during the peak commute times. This delay remains within the ranges acceptable per the City's General Plan.

It currently takes 2.5 to 3 minutes to travel the extent of the project area. With the preferred concept, it is estimated that it will take between 4 to 7.5 minutes during morning or evening peak commute times. During most of the day drivers will be able to easily travel along Broadway experiencing very little congestion.

There is a significant amount of vehicle traffic traveling on 34th St. during peak commute times. The traffic signal at 34th St. and Broadway will be programmed to accommodate vehicle movements in all directions and as a result people driving along both 34th St. and Broadway will experience increased delay during the peak commute times.

The preferred concept changes will increase safety along the corridor for all users by slowing vehicle speeds, creating dedicated facilities for people riding bicycles, and simplify crossing Broadway for all users, especially pedestrians. The preferred concept will significantly decrease the level of stress for pedestrians and people riding bicycles along the corridor. The proposed buffered bike lanes are consistent with the planned buffered bike lanes on Broadway to the west of the project area. The new bike lanes will improve access to destinations on Broadway in Oak Park and provide connectivity across neighborhoods.

The exhibit on the following page details the intersection operations today, compared to the expected operations with the preferred concept for the corridor. Additional details of the transportation analysis can be found in the Appendices.

INTERSECTION	EXISTING CONDITIONS			PREFERRED CONCEPT		
	CONTROL	PEAK HOUR	DELAY / LOS	CONTROL	PEAK HOUR	DELAY / LOS
Broadway / SR 99 On-Ramp	SSSC	AM	2 / A	Signal	AM	19 / B
		PM	10 / A		PM	14 / B
Broadway / SR 99 Off-Ramp	Signal	AM	8 / A	Signal	AM	12 / B
		PM	9 / A		PM	7 / A
Broadway / Alhambra Boulevard / Y Street	Signal	AM	17 / B	Signal	AM	44 / D
		PM	21 / C		PM	39 / D
Broadway / 32nd Street / 1st Avenue	SSSC	AM	1 / A	Signal	AM	26 / C
		PM	1 / A		PM	33 / C
Broadway / 33rd Street / 1st Ave-2nd Avenue Alley	SSSC	AM	1 / A	SSSC	AM	11 / B
		PM	1 / A		PM	35 / D
Broadway / 2nd Avenue	SSSC	AM	4 / A	Signal	AM	7 / A
		PM	10 / A		PM	10 / B
Broadway / 34th Street	Signal	AM	17 / B	Signal	AM	55 / D
		PM	25 / C		PM	85 / F
Broadway / 35th Street / 3rd Avenue	Signal	AM	10 / A	Signal	AM	36 / D
		PM	16 / B		PM	34 / C
Broadway / 36th Street / 4th Avenue	SSSC	AM	1 / A	SSSC	AM	12 / B
		PM	3 / A		PM	7 / A
Broadway / 37th Street	SSSC	AM	2 / A	SSSC	AM	9 / A
		PM	2 / A		PM	5 / A
Broadway / 38th Street / 5th Avenue	SSSC	AM	2 / A	Signal	AM	17 / B
		PM	3 / A		PM	22 / C
Broadway / Martin Luther King Jr Boulevard	Signal	AM	17 / B	Signal	AM	33 / C
		PM	23 / C		PM	31 / C
Alhambra Blvd / 2nd Ave	SSSC	AM	3 / A	SSSC	AM	3 / A
		PM	4 / A		PM	3 / A
33rd St / 5th Ave	AWSC	AM	3 / A	AWSC	AM	4 / A
		PM	2 / A		PM	3 / A
34th St / Y St	AWSC	AM	11 / B	AWSC	AM	10 / A
		PM	19 / C		PM	75 / F
37th St / 2nd Ave	AWSC	AM	7 / A	AWSC	AM	8 / A
		PM	7 / A		PM	7 / A

TABLE 1: INTERSECTION DELAY


OAK
PARK

PLACEMAKING

Along with the mobility improvements comes the opportunity to transform underutilized public right of way into more inviting public space. There are several opportunity sites on the Broadway corridor that could be used for additional branding, landscaping, and gathering spaces.

GATEWAYS

There is an existing monument sign in the median of Broadway just south of Y Street that welcomes drivers to Oak Park. With the road diet and changes to the Alhambra Boulevard and Broadway intersection, an additional gateway can be created on the northwest corner. This new space will help brand the entire corridor and slow traffic much further north than the current roadway. There is a similar opportunity on the southern end of Broadway in the median near Martin Luther King Jr. Boulevard.

FIGURE 13: NORTHERN GATEWAY SKETCH

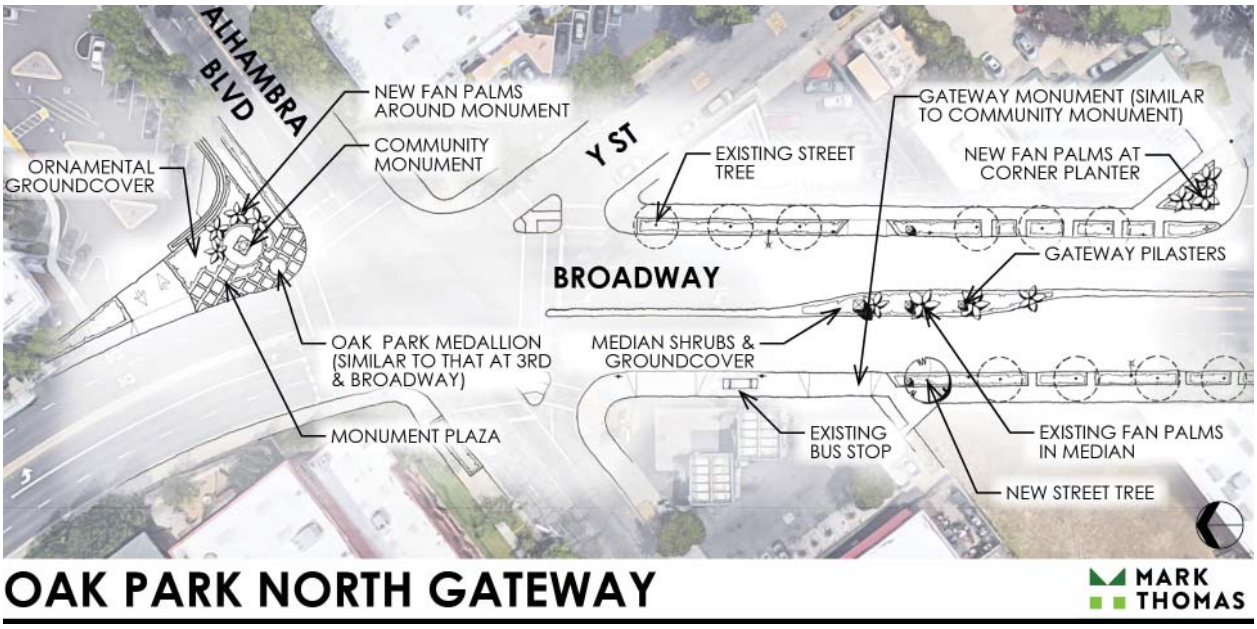


FIGURE 14: NORTHERN GATEWAY LAYOUT

FREEWAY INTERCHANGE AESTHETIC ENHANCEMENTS

Highway 99 is a transportation barrier that divides Oak Park from the Curtis Park neighborhood, as does the interchange dividing the two segments of Broadway from each other. It is an unpleasant environment to walk or ride through under the numerous large concrete overpasses. With the future buffered bikeways on both Broadway projects, there is an opportunity to use public art to bridge the divide between the two projects.

As part of the future investment in the corridor, public art and lighting should be incorporated into this area to connect these two neighborhoods together. The examples below can be used as inspiration for the types of art projects that may be possible, but coordination with local artists, City's maintenance staff, and Caltrans approval will be important when designing the ultimate project.

FIGURE 15: SAMPLE TREATMENTS


FREEWAY
ENTRANCE
CALIFORNIA
99
SOUTH

6 NEXT STEPS

The Envision Broadway in Oak Park Complete Street Plan presents a vision for future mobility on Broadway in Oak Park that reflects the community's needs for improved safety and enhanced mobility options. This is a concept level plan that was developed in close collaboration with the community by analyzing existing conditions and reviewing best practices.

With the plan adoption, the City may decide to move forward towards the implementation of the vision outlined in this plan. There are state and federal funding sources available for these concepts, through competitive grant programs. These funds typically require a significant amount of local funding as match and to cover non grant eligible costs.

FIGURE 16: PREFERRED CROSS SECTION RENDERING

TIMELINE

The plan is expected to be adopted by city council early in 2020. Should funding be available for capital project implementation the next steps for the City would follow a typical delivery timeline for a grant funded project and would include:

Project Development and Environmental Clearance: At this phase, the City would seek grant funding and identify local funding to create a Capitol Improvement Project (CIP). The design and cost estimates are developed beyond the concept level, the required environmental clearances are obtained, the community and stakeholders are engaged, and additional funding sources for final design and construction are pursued.

Final Design and Construction: After the project has been environmentally cleared, final design would occur, and construction funds identified. This timeline is contingent upon available city transportation funds and grant funding.

The final design will enable the project to be constructed as a whole or in phases dependent on funding availability.

PROJECT COST

Estimated costs associated with the completion of the work outlined in this plan are approximately $13,300,000. This estimate is programmatic and would be further developed once the site is investigated, environmentally analyzed, surveyed, designed to scale and would be subject to the competitive bid climate at the time of construction. Funding will rely on multiple Federal, State, and local sources. Depending on the funding source, the project may be implemented in phases. Attached in the appendices is an outline of estimated probable costs, including items such as excavation, asphalt, signs, lighting, and landscaping.

POTENTIAL IMPLEMENTATION TIMELINE

Plan Adopted by City Council expected 2020 → Project Development and Environmental expected 2022/23 → Final Design and Funding expected 2024/25 → Early Construction expected 2026

APPENDICES

A. PUBLIC OUTREACH SUMMARIES

B. TRAFFIC MEMORANDUM

C. PREFERRED CONCEPT STRIP MAP

D. PLANNING LEVEL COST ESTIMATE

E. COMMENT LETTERS

A | PUBLIC OUTREACH SUMMARIES

FREQUENTLY ASKED QUESTIONS

During public outreach and public comment, a few questions were posed and alternative designs were requested that were not ultimately incorporated into the preffered design concept. We respond to some of those questions below.

What kind of trees and landscaping will be planted in the enhanced median?

New trees will be planted for each tree that is removed in accordance with City Code (12.56.040), based on the height of the removed tree (for palm trees). When the preferred concept in this plan is designed in greater detail, the City will identify potential new trees and landscaping with the Division of Urban Forestry and community stakeholders taking into account the strong community support for the preservation and replacement of the palm trees.

Why doesn't the plan show bikeways separated from traffic with parked cars, planters, or other features?

One of the key takeaways from the public outreach process was that many community members and local businesses would like to preserve as much as parking as possible. The skew and length of blocks would dramatically reduce, or possibly eliminate all parking along the corridor to maintain sight lines at intersections and driveways for separated bikeways. Delineators, or other vertical separation may be used in key locations where there is no conflict with on-street parking.

Why can't specific cross streets be closed completely? Why can't the median extend the entire length of the corridor?

To develop a better understanding of the corridor we ecaluated vehicle circulation and collision data. This evaluation led to a recommendation to limit access to some cross streets with the enhanced median, by limiting access to right-turns only. The portion of the corridor between 36th St. and 38th St. features a two-way left turn lane to enhance access for residents along Broadway and reduce potential neighborhood cut through traffic.

Can on-street bike corrals or electric vehicle charging be added in the area dedicated to vehicle parking?

Absolutely! When the plan is fully designed and implemented there is the opportunity to identify locations for curbside charging and on-street bicycle parking that are consistent with current City standards.

Envision Broadway in Oak Park

Pop-up Workshop Series Summary | June 2018

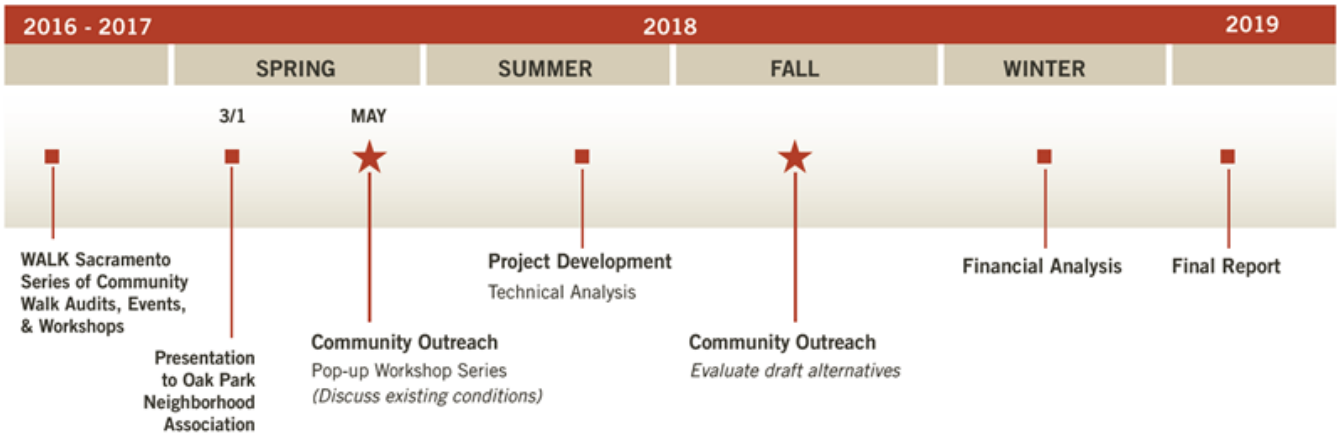
Project Overview

The Broadway corridor in Oak Park, between Franklin Boulevard and Martin Luther King Jr. Boulevard, is home to a vibrant and diverse mix of businesses. These include a concentration of employers that support retail and non-retail jobs. The area also includes a blend of housing styles. This stretch of the corridor is generally four lanes, and serves the region by carrying almost 15,000 vehicles per day.

A map of the project area

The [Envision Broadway in Oak Park Complete Street Plan] will enhance accessibility and safety for all modes of transportation, and consider the needs of residents, businesses, and visitors, as well as

Schedule



Envision Broadway in Oak Park

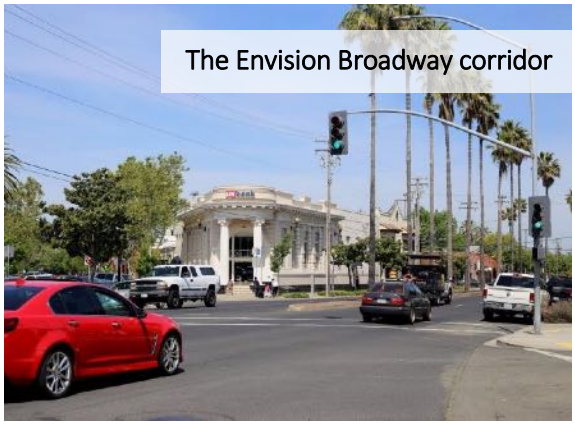
Pop-up Workshop Series Summary | June 2018

Community Involvement

Get Involved! Sign up to receive project updates here.

In May and June 2018, the City of Sacramento hosted a series of four pop-up workshops for the Envision Broadway in Oak Park Project. More than 86 community members attended the workshops, which took place at the following locations in the project area:

May 5	Oak Park Farmer's Market McClatchy Park
May 9	Oak Park Business Association Meeting
May 12	Oak Park Farmer's Market McClatchy Park
June 1	First Friday in Oak Park



The Envision Broadway corridor

Pop-up Workshop Purpose

The pop-up workshop series provided an opportunity for nearby residents and community members who visit and travel through the project area to learn about the Envision Broadway in Oak Park project and share their experiences traveling along the corridor.

Workshop Format

Each pop-up workshop included two informational and three interactive board displays. Project team members staffed each display to answer questions and encourage participation. Workshop participants were also provided with comment cards to share additional thoughts.

Children sharing their experiences traveling along the project corridor with project team members at the May 5th pop-up workshop.

All of the board displays are included in this document's appendix, and outlined on the following pages.

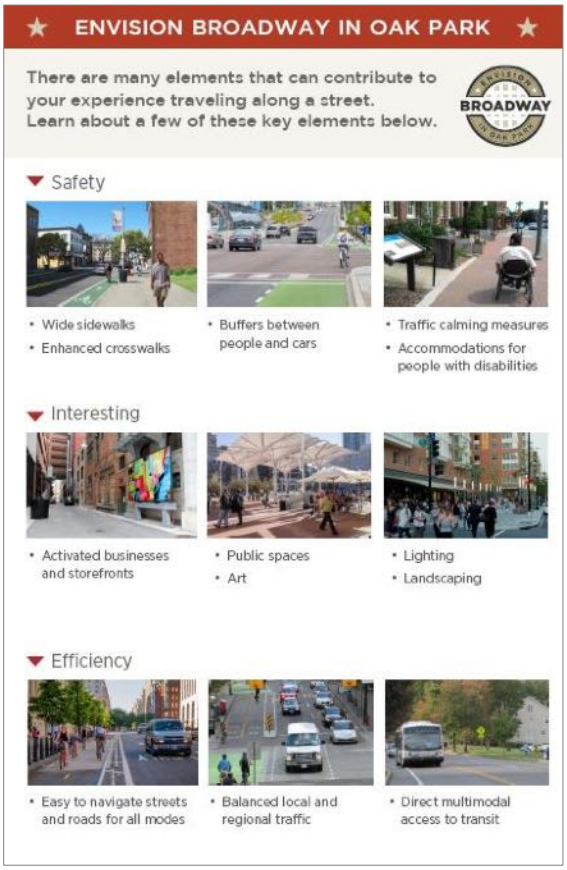
Informational Boards

About the Project

This board provided an overview of the Envision Broadway in Oak Park project, a map depicting the five concurrent projects currently being completed by the City of Sacramento along the Broadway Corridor and a project schedule.

Key Elements of a Corridor

There are many elements that can contribute to a person's experience traveling along a street. This board shared information about three key elements, and provided examples for each: safety, interesting, and efficiency. This board accompanied the "Traveling Experience" board, described below, to help inform workshop participants prior to them providing input.

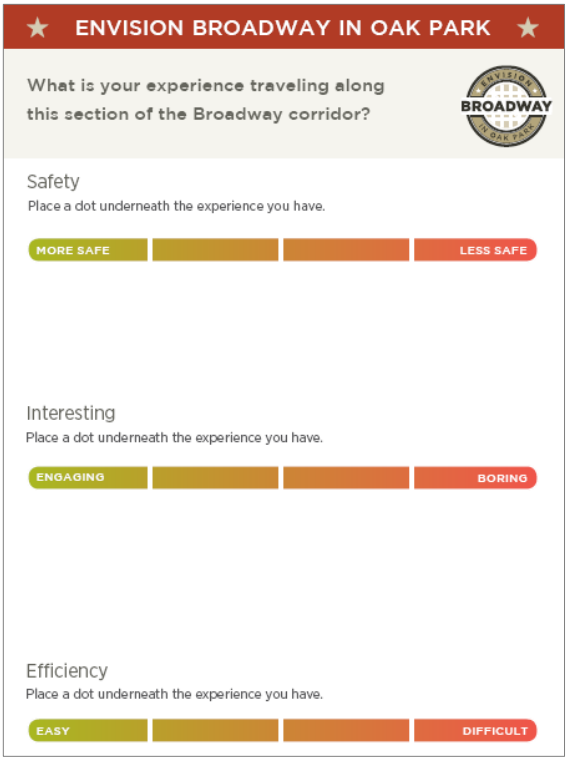


Interactive Boards

Traveling Experience

This board asked participants to respond to the question, "What is your experience traveling along this section of the Broadway corridor?" in relation to three key elements. These key elements, explained in the "Key Elements of a Corridor" board, included safety, interesting, and efficiency. Each element was accompanied by a spectrum (more safe to less safe, engaging to boring, and easy to difficult) which participants placed a dot by where their experience measured on the spectrum.

The dots participants placed on each key element's spectrum indicated which mode of transportation they used to travel along the corridor. The dots were available as a car, bus, bike, and pedestrian.

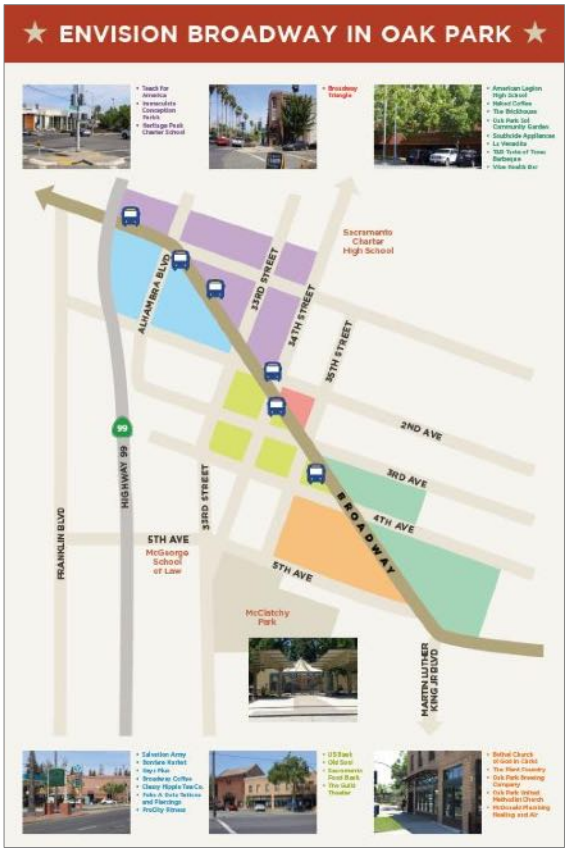


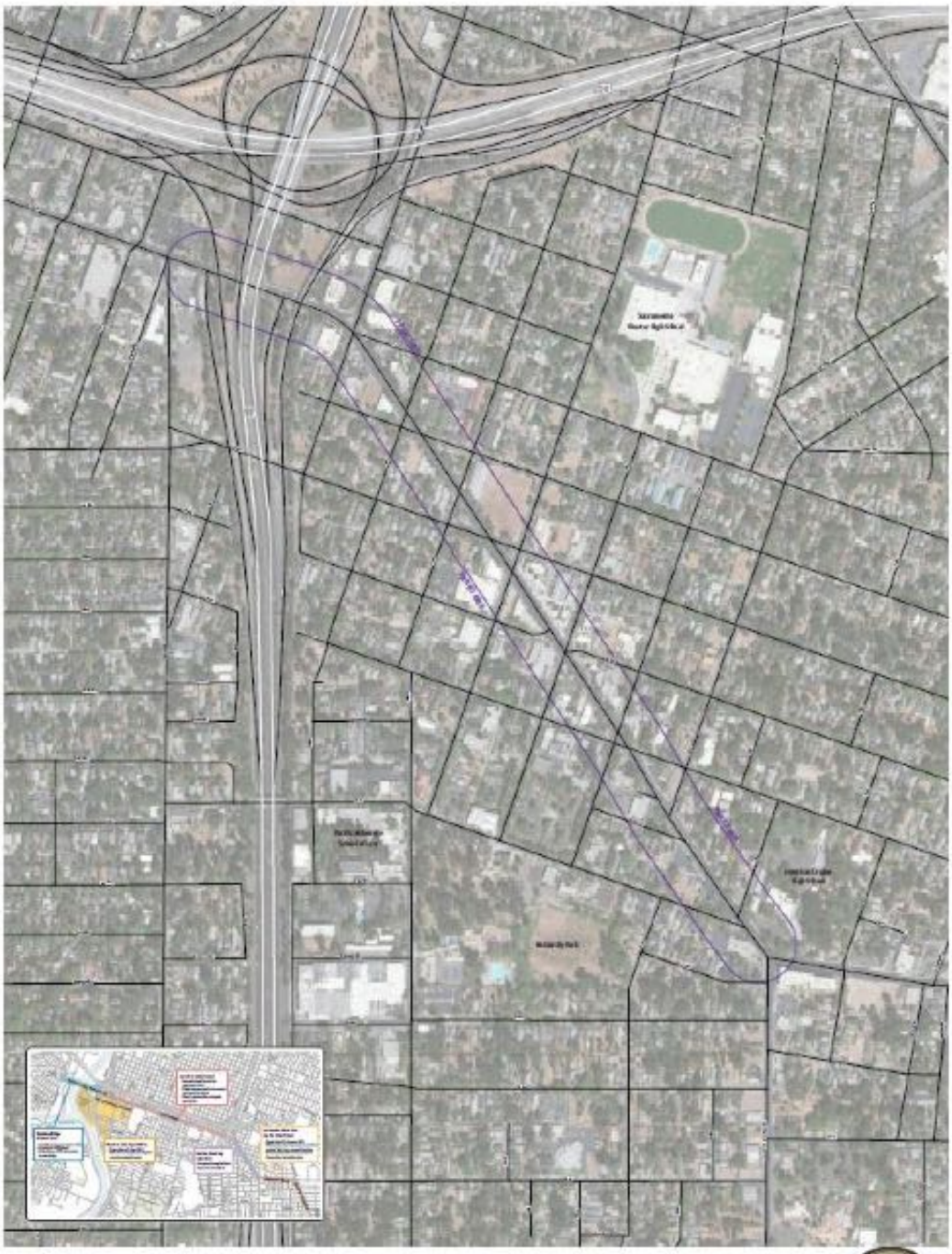
Illustrative Map

An illustrative map of the project area included photos of different "zones," or clusters of community destinations and local businesses, and transit stops along the corridor. Participants placed dots, which depicted one of the four different modes of transportation, to show where and how they travel in the project area.

Aerial of the Project Area

An aerial photo of the project area was also available for participants to share their input on through post-it notes.





PROJECT AREA

Feedback

Below is a summary of all community feedback received at the pop-up workshops.

Comment from comment cards and boards

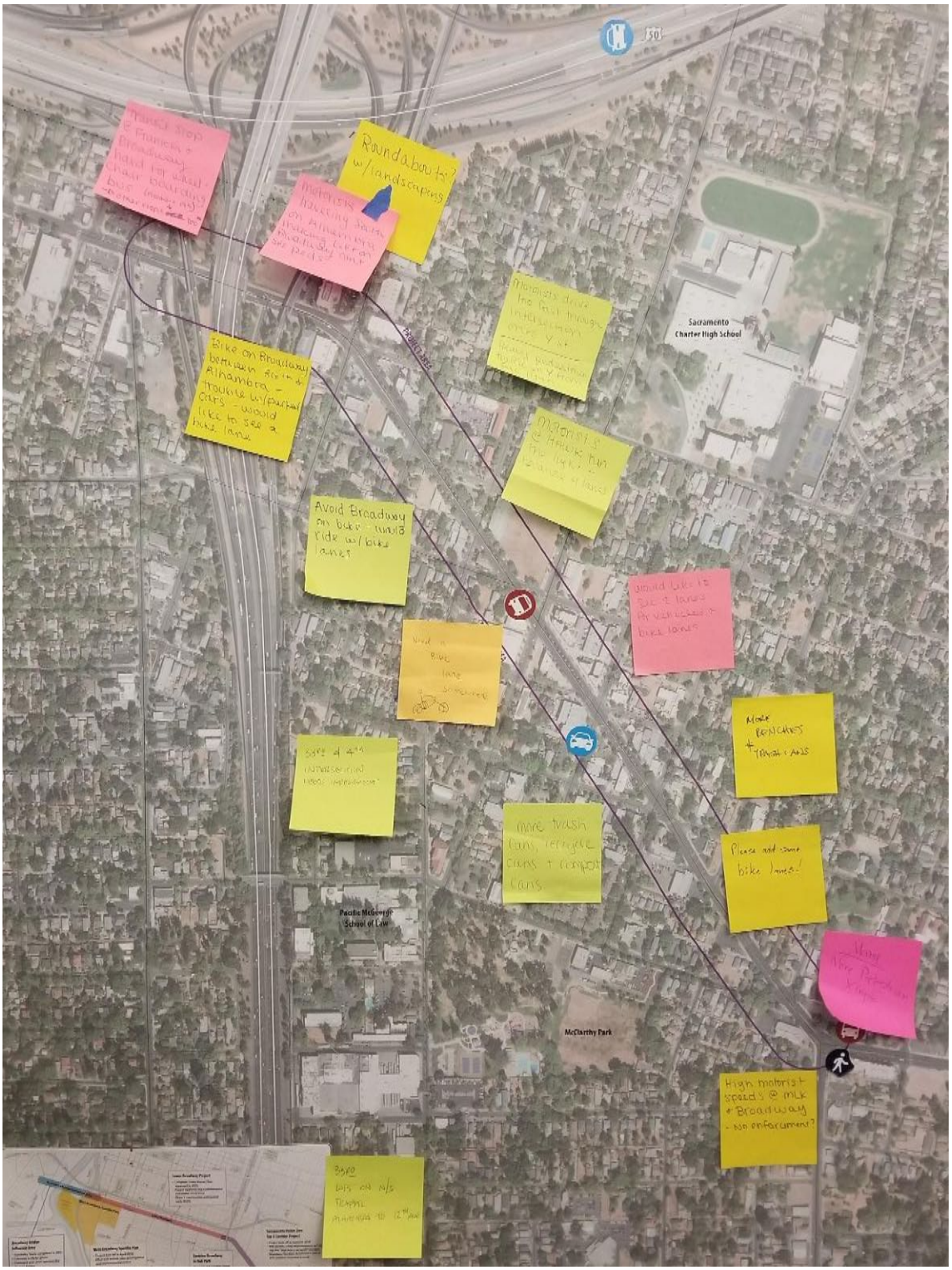
- Many drivers run red lights at 34th and Broadway – perhaps the City could install violation cameras? Or left turn light signals?
- The intersection at 2nd Avenue and 34th Street is dangerous; mark the intersection with white stripes on all four sides and add "clear" and "keep clear" as bold words.
- It is safest to jaywalk mid-block between 34th and 35th Streets, I'm sure you know of this problem. Please solve this problem or reduce the danger of it.
- I have concerns with safety at the diagonal intersections for both pedestrians and drivers.
- What is the status of a bridge over the river at Broadway? How will this study and street improvement deal with the interested traffic?
- There are accidents almost daily at the corner of 2nd Avenue and 34th Street at Kombi Haus. It is a hard intersection to see people turning onto 34th Street from Broadway. Perhaps if people had to stop before turning onto 34th Street, that would prevent some accidents. Thank you.
- Address the 35th Street and Broadway intersection.
- Address the 34th Street intersection and 2nd Avenue intersection; both are very dangerous.
- Please address bike-ability along the corridor.
- I avoid walking through the 2nd Ave. Tunnel (under Hwy 99)
- The 2nd Ave tunnel is scary, but it is the best way to travel between Oak Park and Curtis Park
- Decorative Archways the narrows the line of site
- More (shade) trees are needed along the corridor, especially on the south/east end
- Bus pullouts are needed
- Sidewalks are not consistently wide enough for wheelchairs
- US Bank Parking on street
- Intersection at 2nd Ave, 34th St. and Broadway is confusing for all users
- Need a cross walk across Broadway at 2nd Ave.
- Wheelchairs need more space at crossings
- Lack of stop signs in east/west direction in neighborhood
- Need a bike lane
- Would like to see activations created by Oak Park artists
- "I like on 3rd Ave and I walk to Old Soul all the time" Christian (age 9)

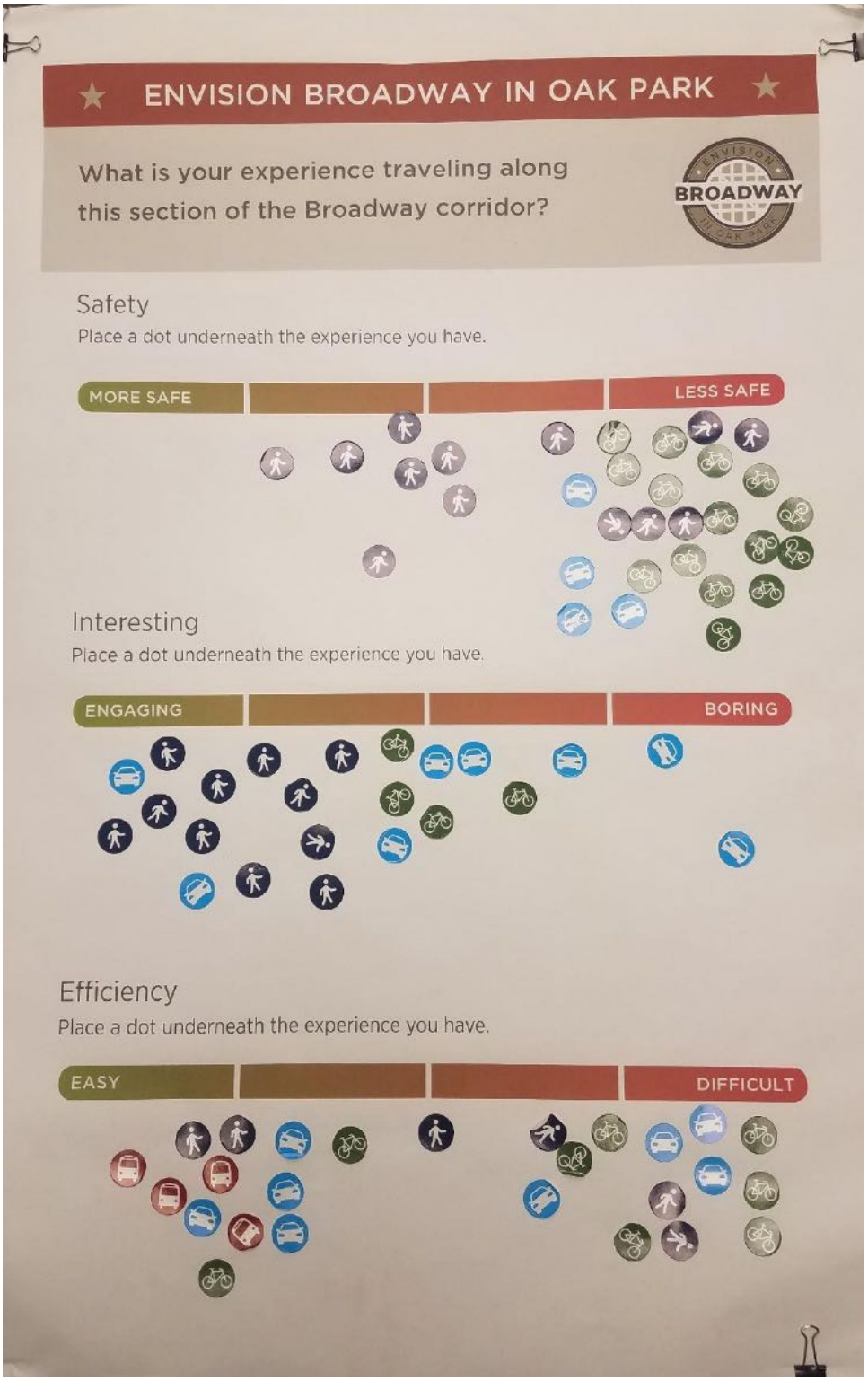
- Consider speed tables or raised intersections
- The signal at 35th and Broadway does not give pedestrians enough time to cross from the NE corner to the the SE corner
- Need longer crossing phases (at signals) for seniors and mobility impaired
- Vehicles on 2nd Ave travel too fast for residents, above the speed limit (30 mph) which itself is too high
- Need more trash cans along Broadway
- Need more trash cans, recycling cans and compost cans
- Like the free on-street parking near the Guild Theater
- Experience increased motorist speeds on the South/East part of the corridor
- Comfortable as a cyclist riding in the street (as a vehicular cyclist) but finds the pavement quality poor
- Need more lighting
- Need many more pedestrian crossings
- Need clarity with beacon signals
- At Broadway and 36th it is difficult for motorists to turn from northbound on 36th left onto Broadway (heading towards Sac High) (sight lines)
- Vehicles traveling too fast on 5th Ave - traffic calming or speed bumps needed
- Inconsistent bike lanes make bike travel harder
- bulb outs without a bike lane mean that bikes get pushed into the curb
- Curtis Park resident prefers to travel East/West on 5th Ave to Broadway
- Transit stop at Franklin and Broadway isn't easily accessible for wheelchairs - the bus must pull away from the curb to allow wheelchair to board
- Motorists traveling south on Alhambra, turning left onto Broadway cannot see pedestrians crossing Y St. or Broadway
- Resident would like to see slower speeds, recommends roundabouts with landscaping to improve aesthetic
- Regularly travel by bike on Broadway between 26th St. and Alhambra and has trouble interacting with parked cars on street. Would like to see a bike land
- Motorists travel too fast from Broadway onto Y St.
- Heavy pedestrian traffic on Y street between transit stop on Alhambra and Sac High
- Crossing at the HAWK still feels uncomfortable because of the number of lanes to cross, motorists run the light regularly

- Live in Oak Park, avoid riding on Broadway but would use bike lanes
- Would like to see a travel lane converted to a bike lane
- Please add some bike lanes
- Need more pedestrian crossings (mid block)
- high motorist speeds and Broadway and MLK, surprised to see little enforcement
- Observed crash, motorist traveling north on MLK turning left onto Broadway - too fast
- Left turn from 4th Ave to Broadway is scary. Traffic on Broadway is fast.
- Motorists don't yield to pedestrians crossing Broadway at 35th Avenue
- Pedestrians crossing Broadway at 2nd Avenue is difficult
- Increase visibility of Farmers Market at McClatchy Park
- Difficult to make left turns onto and from Broadway
- Need more bike lanes on 2nd Avenue
- Alhambra & Broadway, left turns cause chaos and people run the light on Broadway
- Need better connectivity to Midtown for Bikes
- Conflicts between bikes and busses near 99 ramps on Broadway (north/west bound)
- Speeds are too high, consider roundabouts
- 2nd Ave and 32nd Street, people speed and too many accidents at intersection
- Need a central gathering place near 34th and Broadway
- Consider scrambles for pedestrian crossings and removal of automobile conflicts
- More parking for businesses, or bring streetcar through to increase traffic for small shops

Appendix

- Board Displays


Roundabout w/ landscaping
Bike on Broadway between Alhambra - trouble w/ parked cars - would like to see a bike lane
Avoid Broadway on bike - would ride w/ bike lanes
Sacramento Charter High School
McClatchy Park
Pacific McGeorge School of Law


ENVISION BROADWAY IN OAK PARK
What is your experience traveling along this section of the Broadway corridor?
Safety
Place a dot underneath the experience you have.
MORE SAFE
LESS SAFE
Interesting
Place a dot underneath the experience you have.
ENGAGING
BORING
Efficiency
Place a dot underneath the experience you have.
EASY
DIFFICULT


ENVISION BROADWAY IN OAK PARK
Teach for America
Immaculate Conception Parish
Heritage Peak Charter School
Broadway Triangle
American Legion High School
Naked Coffee
The Brickhouse
Oak Park Sol Community Garden
Southside Appliances
La Venadita
T&R Taste of Texas Barbequin
Vibe Health Bar
Sacramento Charter High School
ALHAMBRA
33RD STREET
34TH STREET
35TH STREET
2ND AVE
3RD AVE
4TH AVE
5TH AVE
BROADWAY
99
HIGHWAY 99
FRANKLIN BLVD
McGeorge School of Law
McClatchy Park
MARTIN LUTHER KING JR BLVD
Salvation Army
Bonfare Market
Keys Plus
Broadway Coffee
Classy Hippie Tea Co.
Poke A Dotz Tattoos and Piercings
ProCity Fitness
US Bank
Old Soul
Sacramento Food Bank
The Guild Theater
Bethel Church of God in Christ
The Plant Foundry
Oak Park Brewing Company
Oak Park United Methodist Church
McDonald Plumbing Heating and Air

Envision Broadway in Oak Park Project
Community Open House
November 7, 2018 | 4:30 – 6:30 p.m.
Sacramento Food Bank and Family Services

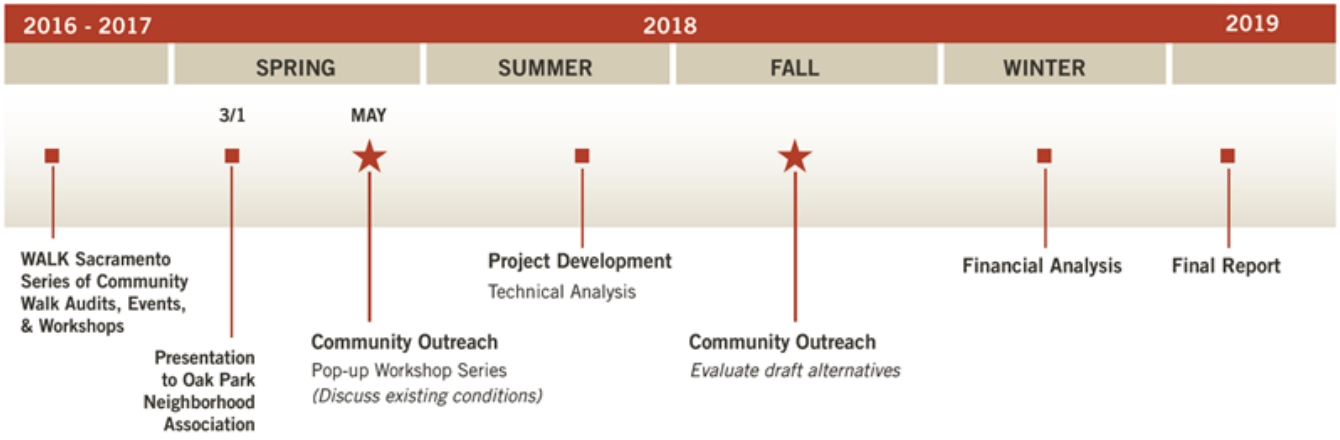
Project Overview

The Broadway corridor in Oak Park, between Franklin Boulevard and Martin Luther King Jr. Boulevard, is home to a vibrant and diverse mix of businesses. These include a concentration of employers that support retail and non-retail jobs. The area also includes a blend of housing styles. This stretch of the corridor is generally four lanes, and serves the region by carrying almost 15,000 vehicles per day.

The Envision Broadway in Oak Park Complete Street Plan will enhance accessibility and safety for all modes of transportation, and consider the needs of residents, businesses, and visitors.

A map of the project area

Schedule



Community Open House Purpose

On November 7, 2018, the City of Sacramento hosted a community open house for the Envision Broadway in Oak Park Project. More than 35 community members attended the open house, which took place at the Sacramento Food Bank and Family Services. The purpose of the community open house is to engage stakeholders, community members, motorists, pedestrians, and bicyclists, and transit riders who travel on Broadway between Martin Luther King Jr. and Franklin Boulevard.

Community Open House Format

The community open house was held in a "guided open house" format, with five information stations set up around the room for attendees to review and provide input on. Project team members were stationed around the room to answer any questions and guide community members through the open house.

Attendees visited the information stations to l earn about the Envision Broadway in Oak Park Project, and review and provide input on preliminary design concepts for the roadway. Participants had the opportunity to contribute their ideas, input, and questions through one-on-one discussions with project team members, and through a short survey comment card.

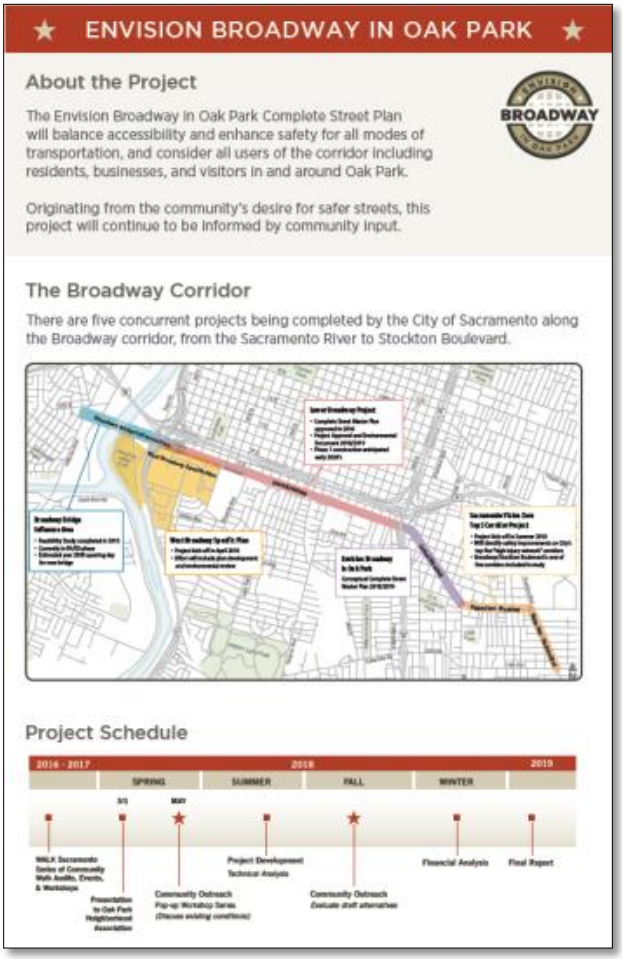
Informational Boards

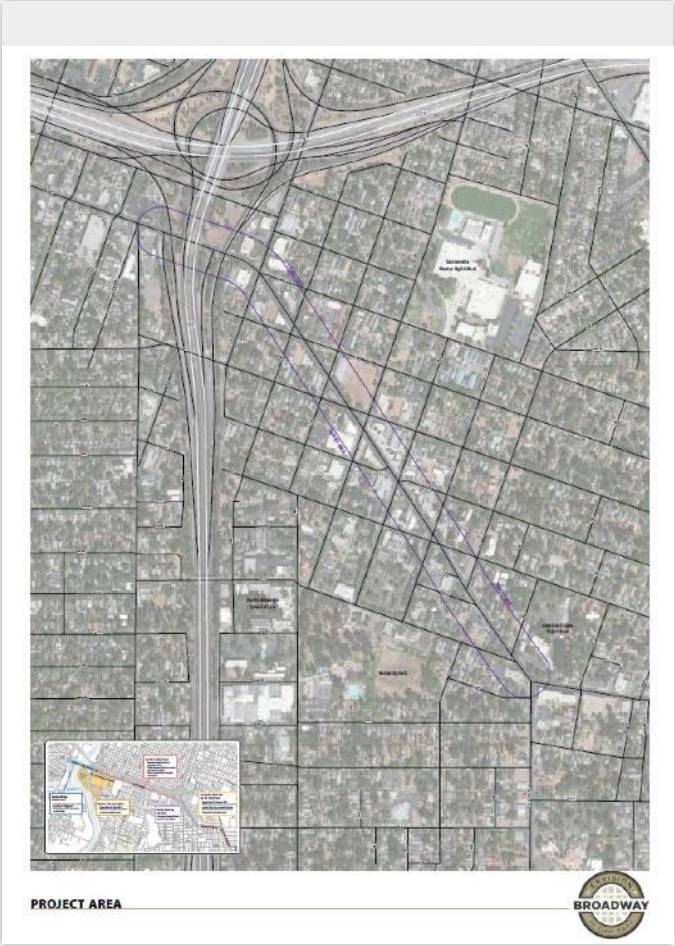
Station 1: Project Overview

About the Project

The first board display in Station 1 provided an overview of the Envision Broadway in Oak Park project, a map depicting the five concurrent projects currently being completed by the City of Sacramento along the Broadway Corridor and a project schedule.

The second board display provided a map of the project area.





What We Heard

Two additional board displays presented community input received at pop-up workshops held in spring of 2018, including community members' experiences traveling along the project area.

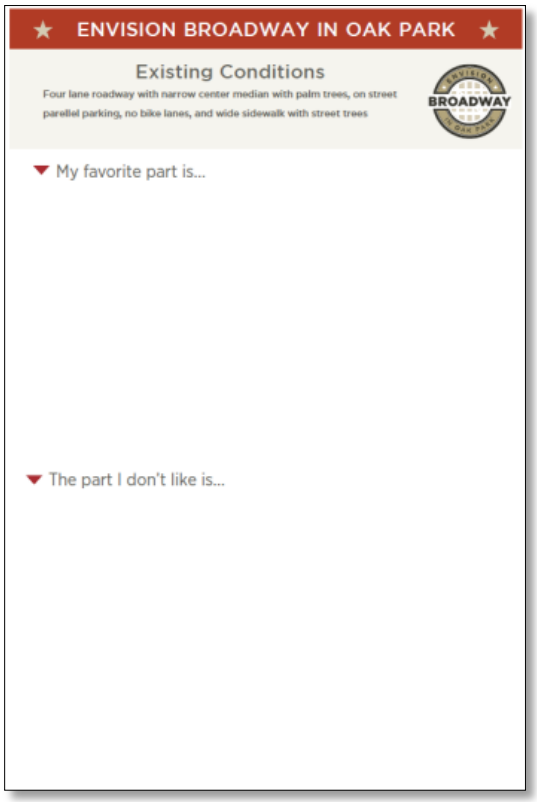
Interactive Boards

Design Concept #1: Existing Conditions

This board display included an illustrative drawing of the corridor as it exists today as the first design concept. It presented an overview of the existing corridor's key elements. Community members were asked to provide their input about the existing corridor by placing a dot sticker along a spectrum with the following answer options:

- My needs are not being met and I strongly support changes
- I would support changes to the corridor
- I am neutral
- It's ok as it is
- I really like the way it is and don't want any changes.

The second board display asked community members to respond to two prompts about the existing corridor: "My favorite part is…" and "The part I really don't like is…." Community members provided their input by writing on post-it notes and placing them on the board.

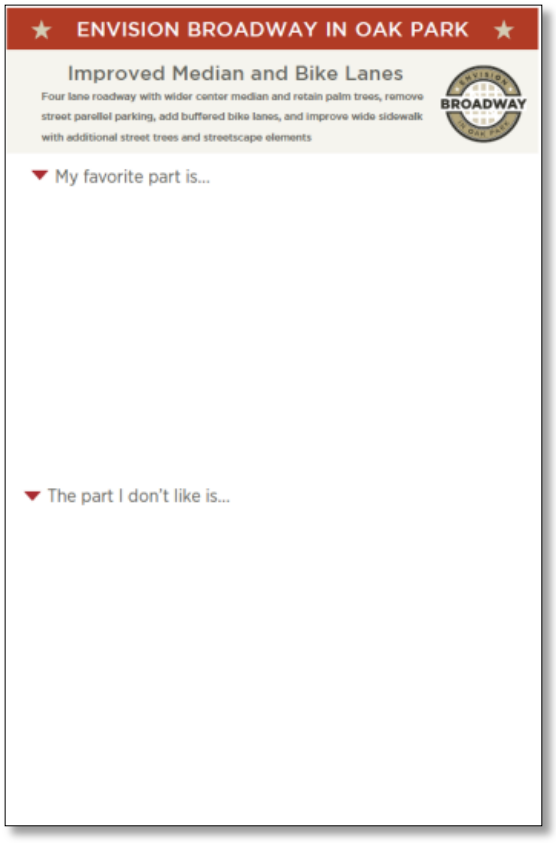


Design Concept #2: Improved Median and Bike Lanes

This board display included an illustrative drawing of the second design concept for the Envision Broadway in Oak Park corridor. It presented an overview of the existing corridor's key elements. Community members were asked to provide their input about the existing corridor by placing a dot sticker along a spectrum with the following answer options:

- I really don't like it
- I don't like it
- I am neutral
- I like it
- I really like it.

This board display also asked community members to respond to two prompts about the second design concept: "My favorite part is…" and "The part I really don't like is… Community members provided their input by writing on post-it notes and placing them on the board.

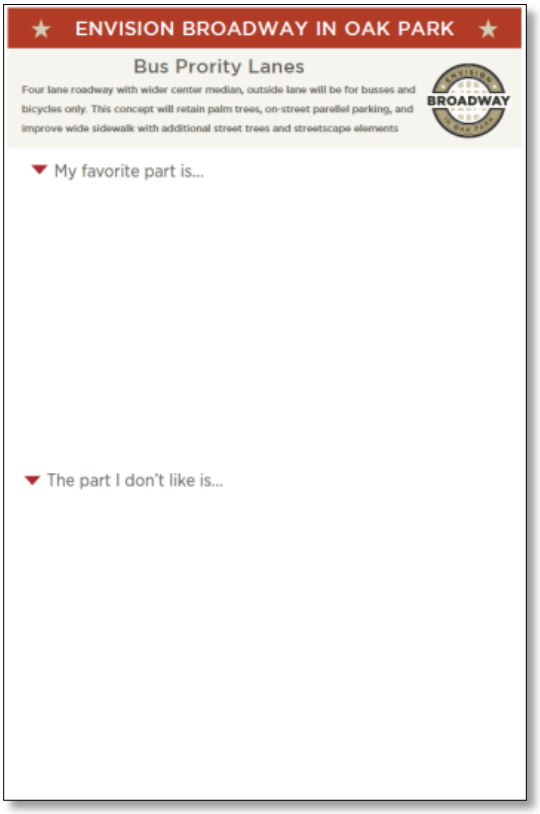


Design Concept #3: Bus Priority Lanes

This board display included an illustrative drawing of the third design concept for the Envision Broadway in Oak Park corridor. It also presented an overview of the existing corridor's key elements. Community members were asked to provide their input about the existing corridor by placing a dot sticker along a spectrum with the following answer options:

- I really don't like it
- I don't like it
- I am neutral
- I like it
- I really like it.

This board display also asked community members to respond to two prompts about the third design concept: "My favorite part is…" and "The part I really don't like is…" Community members provided their input by writing on post-it notes and placing them on the board.

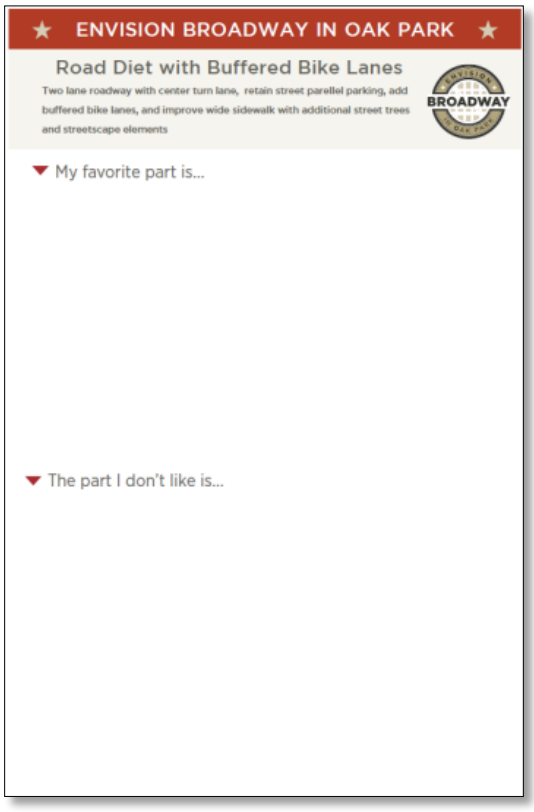


Design Concept #4: Road Diet with Buffered Bike Lanes

This board display included an illustrative drawing of the fourth design concept for the Envision Broadway in Oak Park corridor. It presented an overview of the existing corridor's key elements. Community members were asked to provide their input about the existing corridor by placing a dot sticker along a spectrum with the following answer options:

- I really don't like it
- I don't like it
- I am neutral
- I like it
- I really like it.

This board display also asked community members to respond to two prompts about the fourth design concept: "My favorite part is…" and "The part I really don't like is…" Community members provided their input by writing on post-it notes and placing them on the board.

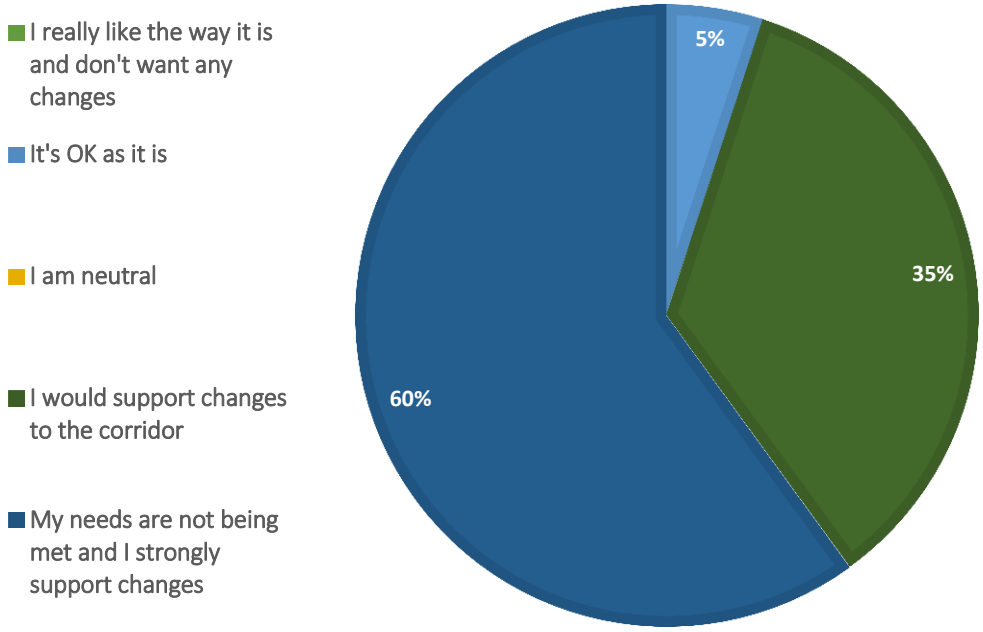


Community Feedback

Below is a summary of all community feedback received at the open house through the interactive boards. The pie charts represent community feedback from dot stickers and community members also left comments on post-it notes.

Design Concept #1: Existing Conditions

Four lane roadways with narrow center median with palm trees, on street parallel parking, no bike lanes, and a wide sidewalk with street trees



My favorite part is...

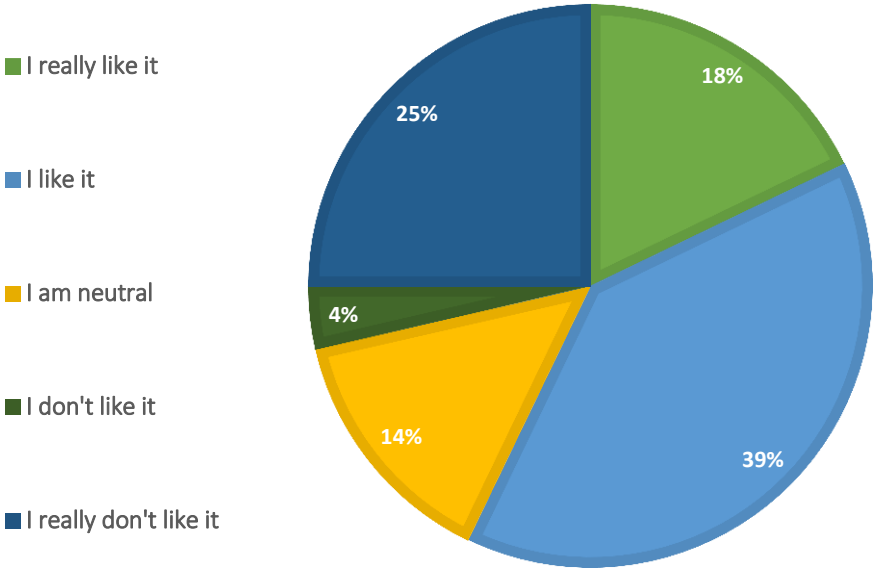
- Palms in the median and wide sidewalks with a planter strip buffer.
- Palm trees, art and murals, and big busy sidewalks.
- Wide sidewalks, buffer between sidewalk and street with trees, break in between the trees for handicap access to vehicles.
- Palm trees.
- Sidewalks with businesses we love.
- The eclectic nature of Oak Park.
- Wide sidewalks, I appreciate the buses with shade and benches while waiting and palm trees in the median.
- I live in Oak Park, avoid riding on Broadway but would use bike lanes.

The part I don't like is…

- The cars drive too fast, it's like a war zone.
- It is hard to cross the street as a pedestrian and super dangerous as a cyclist because cars speed and are mean to pedestrians and cyclists.
- It is currently not pedestrian friendly.
- Add pedestrian crossing lights on 34th Street and / or add pedestrian-height lights on our darker corners. It lights the sidewalk and creates less light pollution.
- The intersection at 34th Street, 2nd Avenue and Broadway needs to be unified.
- There are no bike lanes because speeders are unsafe.
- There needs to be bike lanes.
- There are no bike lanes, cars travel too fast and there isn't enough shade.
- You must remove 2nd Avenue crash test site and remove one lane of traffic. Add big bike lanes on either side.
- I don't like the fast cars, dangerous intersections, cars travel too fast on 34th Street and the sidewalk / street transitions on 34th Street are too steep for walkers / wheelchairs.
- There are no bike lanes, which creates a difficult pedestrian environment and too many conflict points.
- I don't like the unsafe pedestrian crossings.
- I don't like gentrification.
- I don't like drivers turning left or right way too fast and speed through intersections.

Design Concept #2: Improved Median and Bike Lanes

Four lane roadway with wider center median and retain palm trees, remove street parallel parking, add buffered bike lanes, and improve wide sidewalk with additional street trees and streetscape elements.



My favorite part is…

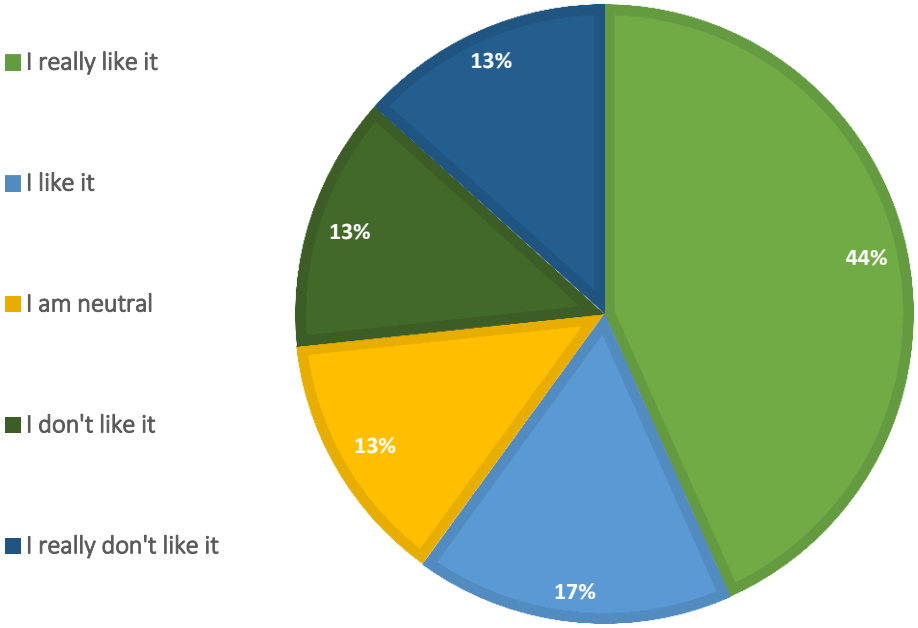
- I would prefer buffered bike lanes. (5)
- I like the dedicated and buffered bike lanes.
- I like the bike lanes.
- I like the bike lanes and not having parked cars block visibility to the bike lane.
- I am in favor on Design Concept #2 because it gives bicyclists their own space out of traffic and off the sidewalks, which are for pedestrians. Buses are still free to maneuver / are not as frequent as passenger / truck travel. The center median gives the best character to neighborhoods.
- I like traffic calming buffered bike lanes; it makes it safer for pedestrians.
- I like the wide medians and the turn lanes.
- Buses and bikes separated like this is better than sharing a lane (like in Concept #3).
- Nobody has ever died because they couldn't find parking.
- I like that this prioritizes people over parking.
- I like that it adds some safety for bikes.
- Keep most palm trees, add turn lanes, remove car lanes and add bike lanes like a hybrid model.

The part I don't like is…

- Without parking business will die.
- There is no shade in this concept.
- I don't like not having a center turn lane for cars because cars whip around turning vehicles too fast.
- Why do we need four lanes for cars?
- Don't remove trees or parking.
- I don't like pushing bus spots out into lanes of traffic, it is difficult for the blind to locate these bus stops without detectable warning and directional tiles.
- We need more parking on Broadway, not less.
- We already don't have enough parking spaces, maybe diagonal would be better.
- I don't like that there is no parking.
- Our business needs clients to have parking, otherwise people will go somewhere else if it's too difficult to find parking.
- Don't remove parking and don't keep two lanes of traffic.
- Four travel lanes are dangerous.
- No parking to support local businesses.

Design Concept #3: Bus Priority Lanes

Four lane roadway with wider center median, outside lane will be for busses and bicycles only. This concept will retain palm trees, on-street parallel parking, and improve wide sidewalk with additional street trees and streetscape elements.



My favorite part is…

- I like the narrow lanes to calm traffic and also preserving palm trees.
- I like the bike / bus lane and one lane of travel. Keep parking in the plan.
- I like the bus priority lanes, but not with the bike lanes. Can we keep them separate?
- I like preserving the median and cleating multi-modal transportation opportunities.
- Pedestrian and driving safety is a must.
- In my opinion, #3 is the best of all the options.
- I like that bikers have an option.
- Keep the trees and parking, slow traffic and focus on bus priority.
- I like the wide medians, turn lanes and improved transit.
- I like the bike lanes, preserving transit times, parking and palm trees.
- Parking spaces are awesome for attracting customers for businesses.
- Keep the palm trees, make it safer for bikes, help busies and keep parking. I love this concept.
- Keep parking with no buffer as it makes parking between two spots hard.
- Please keep the trees for the California vibe and downtown swag.
- I like that parking is still intact.

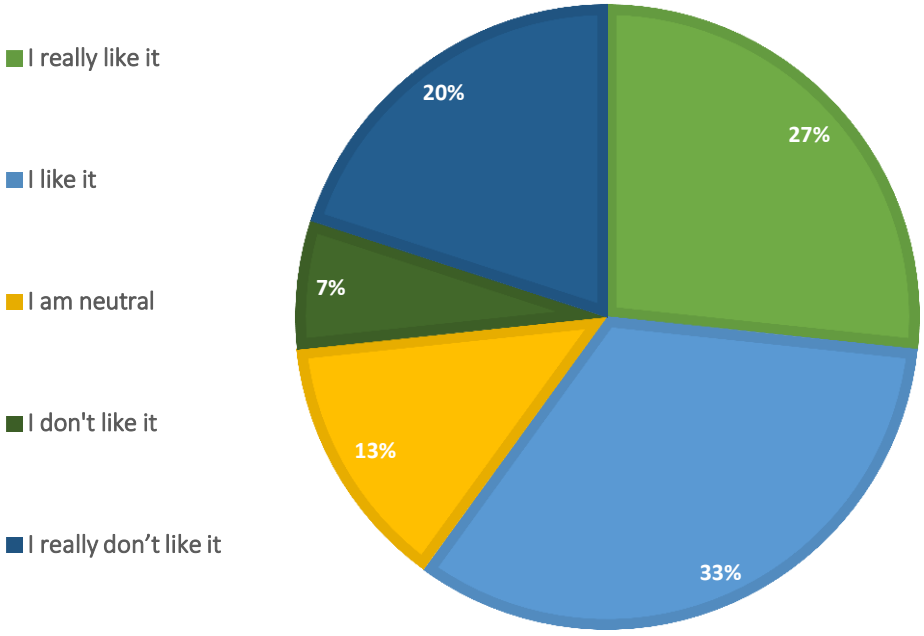
- Keep trees, keep parking and keep the bikes off the sidewalk; they need their own lane.
- I really like the one travel lane only.
- Put cyclists away from the sidewalk. Some high school kids ride on the wrong side or in the wrong direction.
- I like this because it provides huge transit reliability benefits.
- I like this the best, but my only concerns are safety of bike / bus corridor and the need to police it.
- Could there be a buffer between the parked cars and bus lanes?

The part I don't like is…

- Buses and bikes are a really bad idea.
- What keeps cars out of the bike / bus lane?
- You cannot rely on enforcement.
- As a cyclist, I hate sharing a lane with buses and to have cars park on the other side of the lane.
- It feels unsafe for 8-80 cyclists.
- This lacks express bus lanes.
- Nothing.
- Bus / bike lanes could slow bus traffic, is a bike boulevard a possibility on smaller streets? Mark boulevard with signs and road markings and put signage on Broadway to boulevard.
- I don't like to shared bus / bike lane.
- The shared bike / transit lane seems problematic.
- There are potential conflicts between bikes and buses.
- How do you enforce the bike / bus lane? Is more enforcement a good idea?
- Yes please, I like the bus idea.

Design Concept #4: Road Diet with Buffered Bike Lanes

Two lane roadway with center turn lane, retain street parallel parking, add buffered bike lanes, and improve sidewalk with additional street trees and streetscape elements.



My favorite part is..

- Reducing the number of travel lanes.
- Slower traffic, safer biking, parking remains and the palms remain.
- I like that the bikes get their own lanes and narrower lanes to calm traffic.
- The single travel lane and bike lane is solid.
- I like that it is consistent with other Broadway projects for car lanes and it prevents bottle necking.
- We definitely need a passing lane because drivers will get pissed waiting for left hand turns. I would love the palm trees, but we do have trees on the side.
- My favorite part is everything and we need to modernize Broadway for pedestrians, bus, bike and drivers.
- I like the buffered bike lanes. This concept retains parking and the road diet reduces speed.
- My favorite for safety for all modes of transportation. Can trees be added back to certain sections with no turning traffic?
- I like the parking next to the sidewalk better than the bike lane because pedestrians won't be in the bike lane.
- I like the parking and the bus stop location at the curb.

- Calming traffic saves lives and buffered bike lanes.
- This is the safest plan.
- Less travel lanes will calm traffic and bikers are prioritized.
- I like the narrow lanes to slow traffic.
- Put power lines underground.

The part I don't like is…

- No palm trees removed. (3)
- Don't remove trees. (2)
- No trees.
- Wide sidewalks and sidewalk amenities (plants, benches, bike racks, nice bus stops, etc.)
- Left turn lanes are used for driving, not just turns.
- Delay in bus schedule.
- How far are the dedicated left turn lanes?
- I don't see a plan for adding sidewalk trees.
- We need the raised medians. It's a far walk across the street.
- Don't get rid of the trees; they are iconic for Oak Park.
- Even though there are less palm trees, the traffic calming makes it much safer.
- How many left turns need mid-block?
- Two-way turn lanes sound like an accident waiting to happen.
- This option would slow down buses the most; causing operational and schedule impacts. (4)
- The palm trees are the coolest things on Broadway and we need to keep them.
- Why is the bike lane so wide?
- Don't remove palm trees and if many can be kept, I like this option.

Comment Card Feedback

Below is a summary of community feedback received through comment cards, sorted by topic.

Concept #2

- I'm happy to see the City taking steps to make Broadway safer for bikers and pedestrians. I'm also excited that Concept #2 is willing to prioritize people over parking spaces. I support taking parking and travel lanes in order to install dedicated bike and transit infrastructure. If we are ever going to achieve our GHG targets we will need to better accommodate walking, biking and transit with our transportation infrastructure.
- I appreciate the prioritization of bike lanes, particularly buffered ones. I also support narrowing car lanes to slow down traffic. Keep the palm trees because they are iconic for Oak Park. I like Concept #2 the most, however, after speaking with local business owners, there will have to be a solution so business isn't lost. Thank you for your hard work, I appreciate the opportunity to provide input.
- Great to showcase the scenarios. The diagrams of lane widths help me think in a new way about how Broadway is divided up. Concept #2 is great, balanced and an efficient approach to re-jiggering Broadway that will keep the trees.
- I like Concept #2 because it keeps the median and gives buses and bikes priority.

Concept #3

- Design #3 is my favorite. I think it's the best compromise between all the uses in Oak Park, plus it keeps our iconic palm trees. Making parking on Broadway more clearly would be helpful for local businesses. Adding speed bumps or other traffic calming to 34th would be great. Plants around the palm trees in the median could also help slow traffic. Some of us have also talked about how cool it would be to turn 2nd Avenue at 34th and Broadway into a gathering spot or parklet.
- I prefer concept #3 as it preserves the palm trees and parking and combines buses and bikes – a novel idea. How will the bikes safely pass the stopped buses? We know they won't wait. How will cars be kept out of the bus / bike lane?
- This was great. I'm excited to see what comes and good to see community input encouraged. Concept #3 is my favorite. Do not remove trees.
- I believe you need limited stops and concept #3 allows parking.

- Design concept #3 seems to best satisfy our community's safety, parking, pedestrian crossings, traffic and bike lanes. Please keep the trees and help slow traffic down. The informal process was very engaging. Thank you.

Concept #4

- I am really excited for the street improvements on Broadway. I think Design Concept #4 is safest for all users. It has the least distance for crossing pedestrians (if you add bulb outs where the parking lane is) and a dedicated lane for cyclists. Please don't have the bike lanes shared with transit. I've tried it in other cities and it doesn't feel safe for me, a 30-year-old so I can't imagine it would feel safe for children or the elderly. I think cars needs a center turn lane because there are so many streets.
- I like Concept #4, it's the safest.

Other

- The enhancement of the area for Oak park residents is imperative. The people can be proud. Business will be influenced to flourish. The high school student will hopefully also appreciate it and may influence more pride and discipline for who they and where they came from. The City and County would also benefit.
- Pedestrian safety.
- Thanks for doing this. I'm really excited for the streets to be safer. We need dedicated bike lanes.
- Remove the palm trees, put in a two-way protected bike lane on one side with parking on the other with controlled left turns at certain intersections.
- I love the idea of safer streets. I don't think parking on the main thoroughfare is good anyway given how fast people drive, but there should be some alternative space to accommodate the reduction in parking. Bike lanes have to be away from cars that are driving.
- Route 51 should be celebrated on this corridor as the highest used route in Sacramento. The corridor should be convenient for RT passengers (fast and easy to access).
- Bus priority and accessibility.
- I like the four options and it gives me plenty to think about. I like the event with the poster boards and the consultants were helpful.

- It's exciting. Thank you for all of your hard work, many opportunities to voice our opinions and explanations tonight of all the pros and cons of the various possibilities.
- Accessible pedestrian signals at all street crossings and straighten all crosswalks. Place delineators to separate traffic lane from dedicated bike / bus lane. Consider paratransit needing curbs for pick-up / drop-off passengers.
- We need to keep parking because we have to support local businesses and make it easy for patrons to park. We need to keep our palm trees. We need to slow traffic down. 34th and 2nd / Broadway is a scary intersection and 35th and Broadway as well.
- Please add bike lanes. Please get rid of crash test site at 2nd and Broadway. Please go down to one lane of car traffic each way and keep parking.
- I like the various pros and cons of each option. Adrian did a great job explaining the four concepts. I look forward to more community discussion and experiencing the finished product.
- I participated with WALK Sacramento in 2016. My biggest takeaway was the need to allow pedestrians a better crossing at 4th Avenue. None of these concepts had a plan view that would show what was planned there.

Notification

The project team sent an email and reminder notifications to the project distribution list of more than 260 community members, stakeholders, and business owners.

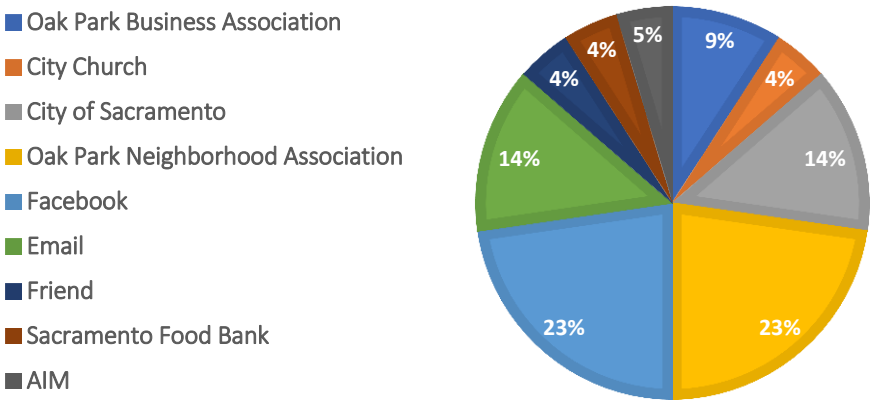
The project team also posted informational fliers at more than 10 businesses and properties following locations along West Capitol Avenue:

- Curtis Park Senior Apartments
- The Arbors at Oak Park
- Broadway Coffee
- Old Soul Coffee
- Teach for America
- Classy Hippie Tea Company
- Unseen Heroes
- The Plant Foundry
- Oak Park Brewing Company
- Capital Graphics
- McDonald Plumbing Heating and Air
- The Guild Theater
- Sacramento Food Bank
- The Strapping Store

Below are the community-based organizations that shared information about the community meeting through social media, e-newsletters, and website updates.

- Oak Park Neighborhood Association
- South Oak Park Community Association
- Colonial Heights Neighborhood Association
- Richmond Grove Neighborhood Association
- Newton Booth Neighborhood Association
- Elmhurst Neighborhood Association
- SHRA
- Comstocks Magazine
- Preservation Sacramento
- CASH (Community Against Sexual Harm)
- Wellspring Women's Center
- Women's Civic Improvement Club of Sacramento
- Asian Resources
- City Year Sacramento
- Oak Park Farmers Market
- Sacramento Asian Pacific Chamber of Commerce
- Sacramento Hispanic Chamber of Commerce
- Sacramento Black Chamber of Commerce
- Sacramento Vietnamese Chamber of Commerce
- Sacramento Rainbow Chamber of Commerce
- Sacramento Metro Chamber of Commerce
- WALK Sacramento
- Sacramento Area Bicycling Advocates (SABA)

When attendees signed in at the open house, they were asked to share how they heard about the event. Below is a summary of their responses.



Appendix

- Community Open House Flier
- Board Displays
- Comment Card

Appendix

ENJOY A SNACK

LEARN ABOUT DESIGN CONCEPTS

LET US KNOW YOUR THOUGHTS

Community Open House

for the Envision Broadway in Oak Park Complete Street Plan

Join us for **snacks, family-friendly activities, and a guided community open house** to learn about design concepts for Broadway between Franklin and Martin Luther King Jr. Boulevard.

The Envision Broadway in Oak Park Complete Street Plan will enhance accessibility and safety for people who walk, bike, ride transit, and drive in the area.

Wednesday November 7

Drop by any time between 4:30 – 6:30 p.m.

Sacramento Food Bank & Family Services
3333 3rd Avenue,
Sacramento, CA 95817

Questions?
Contact Taylor Coover at (916) 442-1168 or tcoover@aimconsultingco.com

RSVP online* at envisionbroadway.eventbrite.com

**RSVPs are requested, but not required.*

ENVISION BROADWAY IN OAK PARK

City of SACRAMENTO

CALL 311 我們講中文 • Hablamos español • Мы говорим по-русски • พวกเรา เว้า พาสาลาว • Peb hais lus Hmoob • Chúng tôi nói tiếng Việt

★ ENVISION BROADWAY IN OAK PARK ★

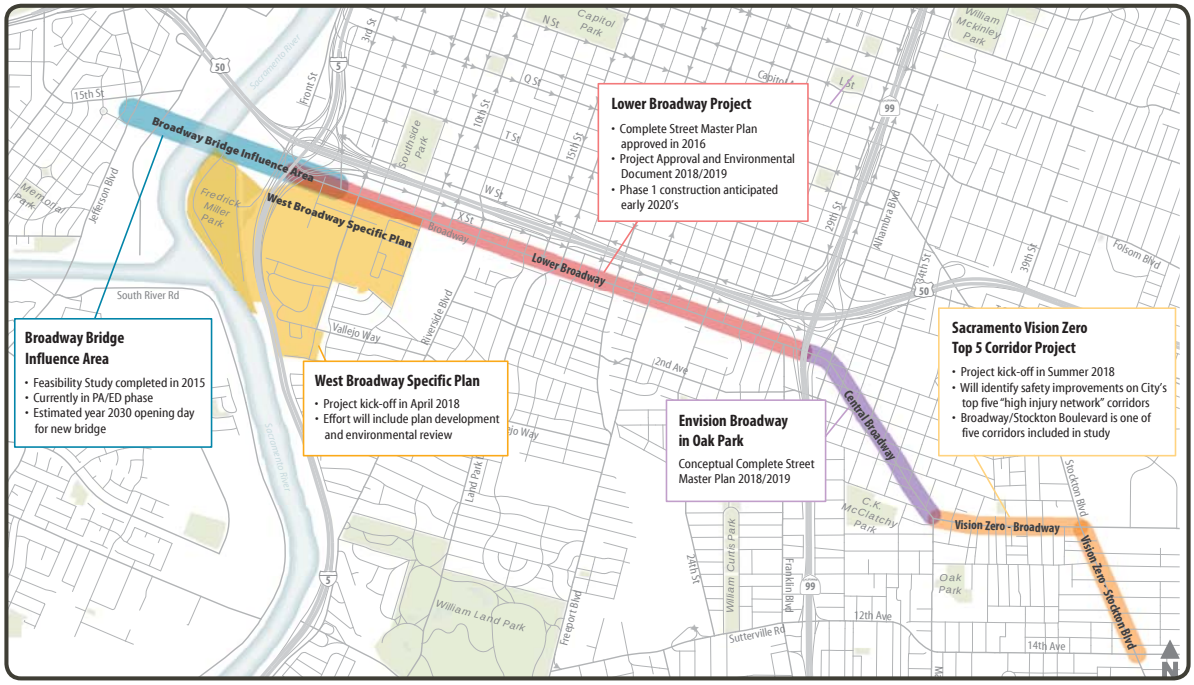
About the Project

The Envision Broadway in Oak Park Complete Street Plan will balance accessibility and enhance safety for all modes of transportation, and consider all users of the corridor including residents, businesses, and visitors in and around Oak Park.

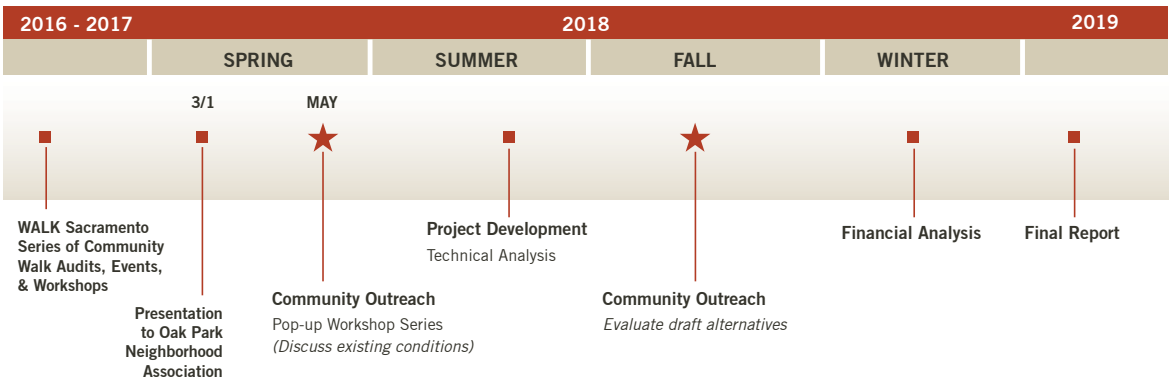
Originating from the community's desire for safer streets, this project will continue to be informed by community input.

The Broadway Corridor

There are five concurrent projects being completed by the City of Sacramento along the Broadway corridor, from the Sacramento River to Stockton Boulevard.



Project Schedule



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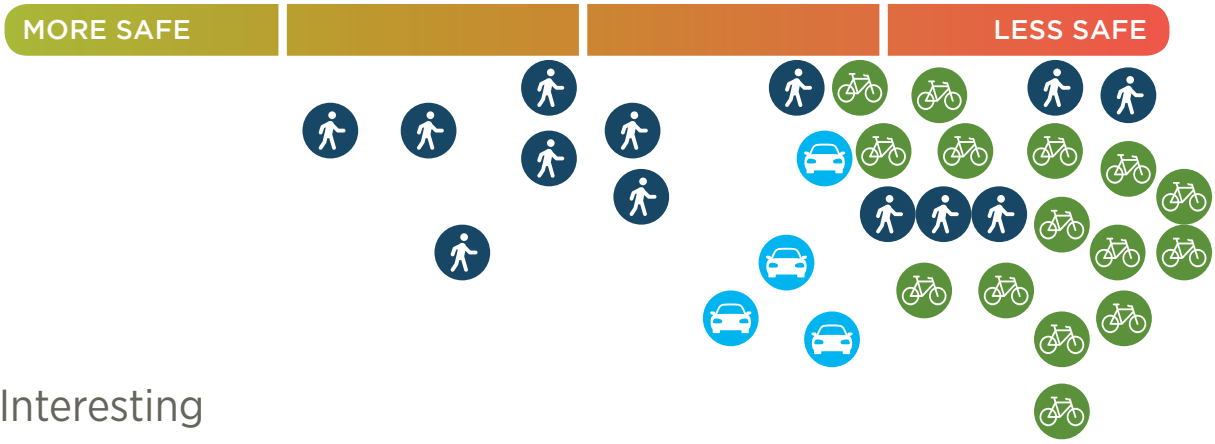
What is your experience traveling along this section of the Broadway corridor?

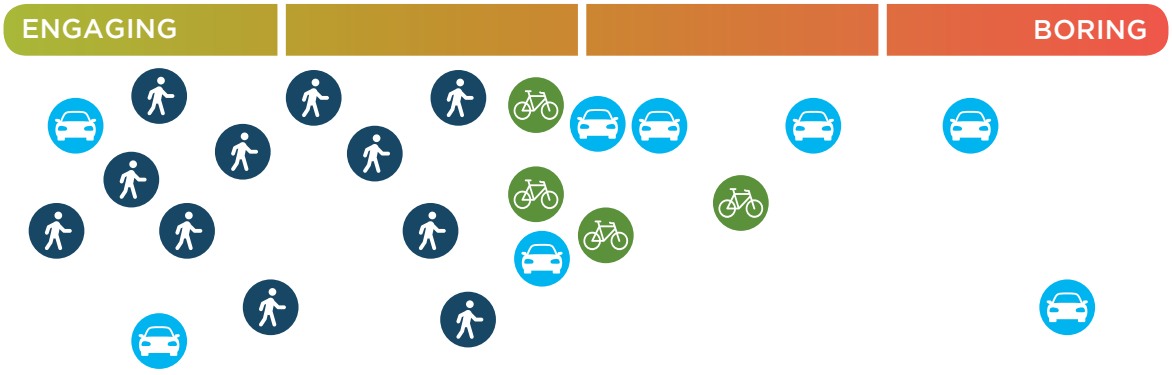
Safety

Place a dot underneath the experience you have.



Interesting

Place a dot underneath the experience you have.



Efficiency

Place a dot underneath the experience you have.

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There are many elements that can contribute to your experience traveling along a street. Learn about a few of these key elements below.

Safety

- Wide sidewalks
- Enhanced crosswalks

- Buffers between people and cars

- Traffic calming measures
- Accommodations for people with disabilities

Interesting

- Activated businesses and storefronts

- Public spaces
- Art

- Lighting
- Landscaping

Efficiency

- Easy to navigate streets and roads for all modes

- Balanced local and regional traffic

- Direct multimodal access to transit

★ ENVISION BROADWAY IN OAK PARK ★

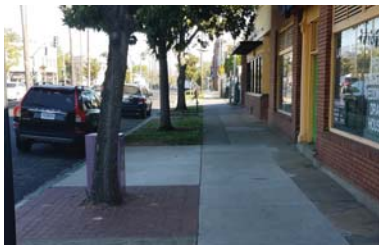
What have we heard from the community about Broadway in Oak Park?

"Intersection at 2nd Avenue, 34th Street, and Broadway is confusing for all users"

"I've experience increased motorist speeds on the South/East part of the corridor."

"I live on 3rd Avenue and I walk to Old Soul all the time."

"Need a central gathering place near 34th Street and Broadway."



"Motorists don't yield to pedestrians crossing Broadway."

"More shade trees are needed along the corridor, especially on the south/east end"

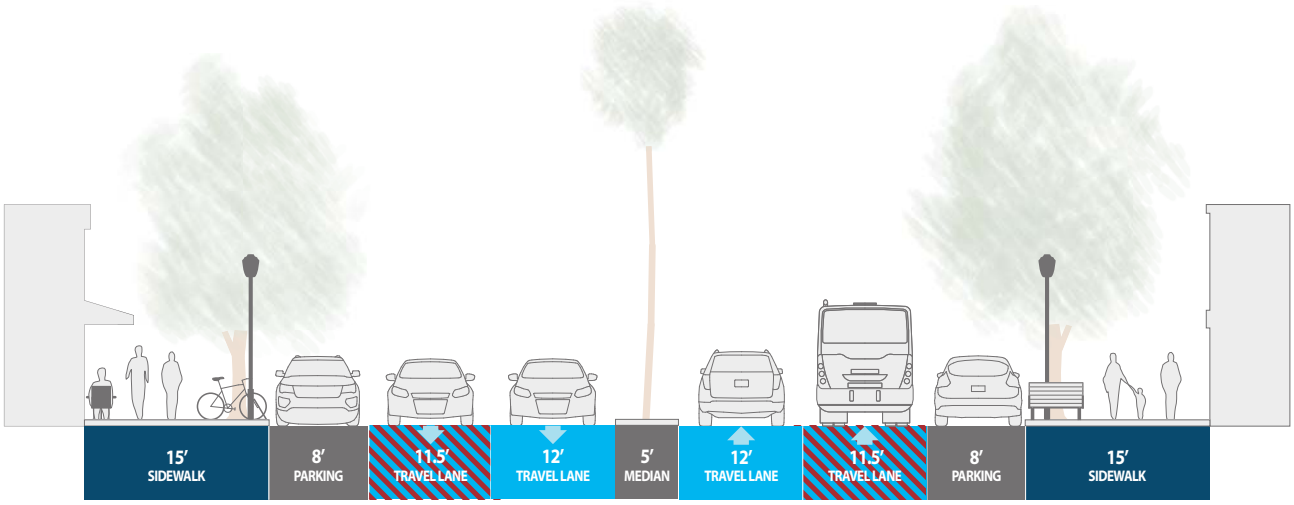
"Difficult to make left turns onto and from Broadway."

"I live in Oak Park and avoid riding on Broadway but would use bike lanes."

★ ENVISION BROADWAY IN OAK PARK ★

Existing Conditions

Four lane roadway with narrow center median with palm trees, on street parellel parking, no bike lanes, and wide sidewalk with street trees



EXISTING CONDITION

- Interesting pedestrian environment accessing a mix of uses
- Iconic palm trees in the medians
- Parallel parking on Broadway
- Sac RT Route 51 has very high ridership
- High automobile speeds at certain times
- Confusing skewed intersections for all users
- Challenging to walk across Broadway
- Median is too narrow for pedestrian refuges
- Left turns made from inside lanes, blocks traffic
- No bike lanes on the corridor

I really like the way it is and don't want any changes	It's OK as it is	I am neutral	I would support changes to the corridor	My needs are not being met and I strongly support changes

ENVISION BROADWAY IN OAK PARK

Existing Conditions

Four lane roadway with narrow center median with palm trees, on street parellel parking, no bike lanes, and wide sidewalk with street trees

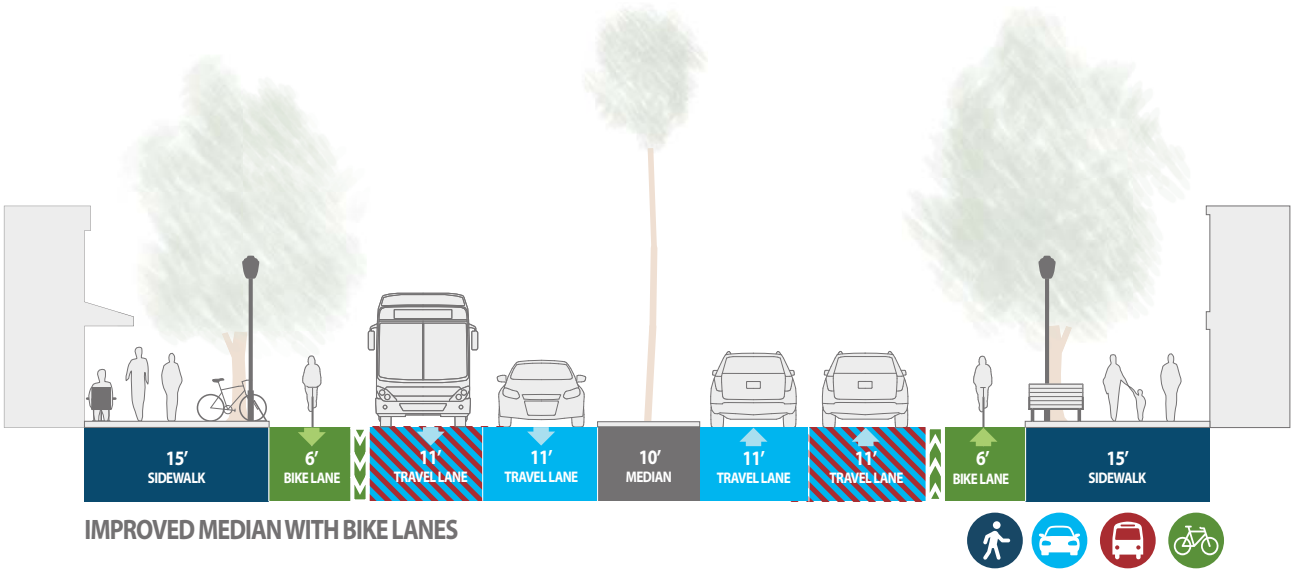
▼ My favorite part is...

▼ The part I don't like is...

★ ENVISION BROADWAY IN OAK PARK ★

Improved Median and Bike Lanes

Four lane roadway with wider center median and retain palm trees, remove street parellel parking, add buffered bike lanes, and improve wide sidewalk with additional street trees and streetscape elements



IMPROVED MEDIAN WITH BIKE LANES

- Narrower lanes to help calm traffic
- Wider medians for left turn pockets and pedestrian refuges
- Median may restrict left turn access to some side streets for increased safety
- Many palm trees will be preserved
- Buffered bike lanes along the corridor
- Parking removal on Broadway with possible increase on side streets
- Bus operations will be similar to today, bus stops will need to be designed to accommodate bike lanes

I really like it	I like it	I am neutral	I don't like it	I really don't like it

ENVISION BROADWAY IN OAK PARK

Improved Median and Bike Lanes

Four lane roadway with wider center median and retain palm trees, remove street parellel parking, add buffered bike lanes, and improve wide sidewalk with additional street trees and streetscape elements

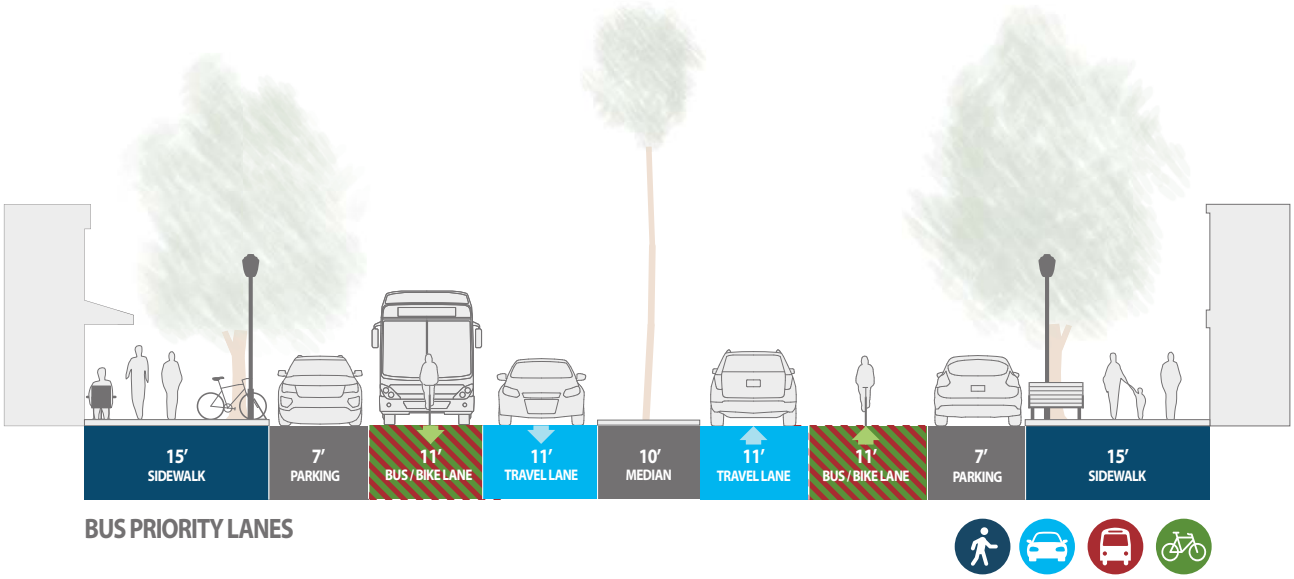
▼ My favorite part is...

▼ The part I don't like is...

★ ENVISION BROADWAY IN OAK PARK ★

Bus Prority Lanes

Four lane roadway with wider center median, outside lane will be for busses and bicycles only. This concept will retain palm trees, on-street parellel parking, and improve wide sidewalk with additional street trees and streetscape elements



BUS PRIORITY LANES

- Narrower lanes to help calm traffic
- Wider medians for left turn pockets and pedestrian refuges
- Median may restrict left turn access to some side streets for increased safety
- Many palm trees will be preserved
- People on bikes will share bus/bike lanes
- On-street parking is preserved, minor losses at bus stops and intersections
- Improved transit operations

I really like it	I like it	I am neutral	I don't like it	I really don't like it

ENVISION BROADWAY IN OAK PARK

Bus Prority Lanes

Four lane roadway with wider center median, outside lane will be for busses and bicycles only. This concept will retain palm trees, on-street parellel parking, and improve wide sidewalk with additional street trees and streetscape elements

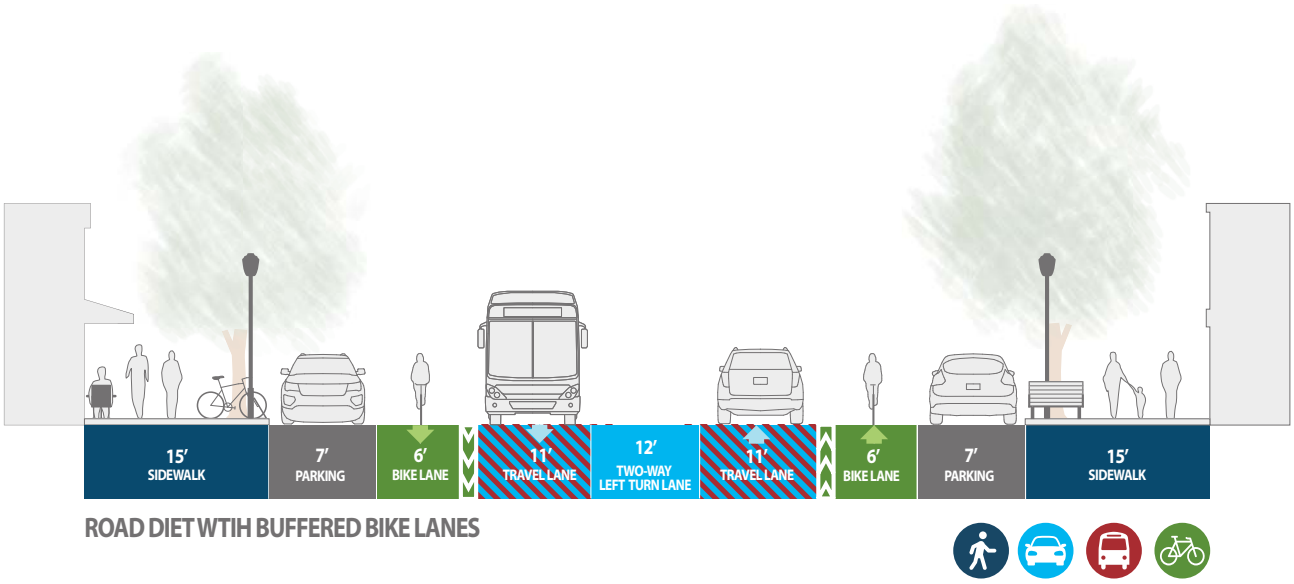
▼ My favorite part is...

▼ The part I don't like is...

★ ENVISION BROADWAY IN OAK PARK ★

Road Diet with Buffered Bike Lanes

Two lane roadway with center turn lane, retain street parellel parking, add buffered bike lanes, and improve wide sidewalk with additional street trees and streetscape elements



ROAD DIET WTIH BUFFERED BIKE LANES

- Narrower lanes to help calm traffic
- Two-way left turn lane will enable greatest level of left turn access
- Pedestrian refuges may need to be added per crossing guidelines
- Many palm trees will be removed, may be able to preserve at special locations as gateway features
- Buffered lane with either door-zone or travel side buffer
- On-street parking is preserved, possibly some minor loss at bus stops and intersections
- Transit will have increased delay during congested times

I really like it	I like it	I am neutral	I don't like it	I really don't like it

ENVISION BROADWAY IN OAK PARK

Road Diet with Buffered Bike Lanes

Two lane roadway with center turn lane, retain street parellel parking, add buffered bike lanes, and improve wide sidewalk with additional street trees and streetscape elements

▼ My favorite part is...

▼ The part I don't like is...

Envision Broadway in Oak Park Comment Card

How did you hear about this community open house? _____

Please share any thoughts, comments, or questions you have about the Envision Broadway in Oak Park Complete Street Plan.

_____

_____

_____

_____

_____

_____

_____

Provide your contact information to be entered into the raffle.

Name: _____

Email Address: _____

Phone Number: _____

You may submit your comments to staff today or directly to tcoover@aimconsultingco.com

City of SACRAMENTO

Place
postage
stamp here

AIM Consulting, Inc.
2523 J Street, Suite 202
Sacramento, CA 95816

Let's Move! Event

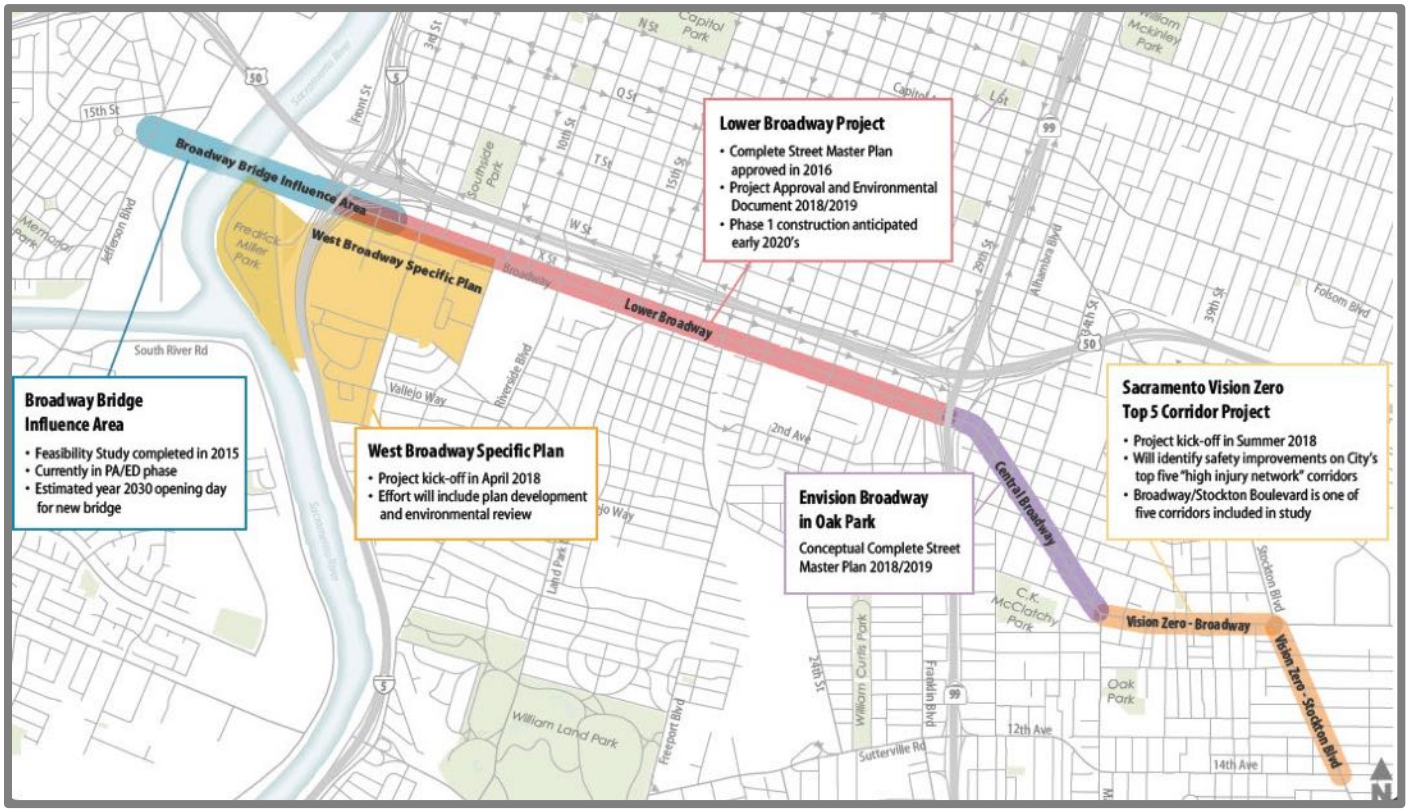
Envision Broadway in Oak Park Community Workshop

Summary of Feedback

About the Project

The Broadway corridor in Oak Park, between Franklin Boulevard and Martin Luther King Jr. Boulevard, is home to a vibrant and diverse mix of retail and non-retail businesses. The area also includes a blend of housing styles. This stretch of the corridor is generally four lanes and serves the region by carrying almost 15,000 vehicles per day and public transit.

The Envision Broadway in Oak Park Complete Street Plan will enhance accessibility and safety for all modes of transportation, and consider the needs of residents, businesses, and visitors. There are five concurrent projects being completed by the City of Sacramento along the Broadway corridor, from the Sacramento River to Stockton Boulevard.



FEHR PEERS aim consulting

Event Format and Purpose

On May 30, 2019, the Envision Broadway Complete Streets project team collaborated with multiple City-wide transportation projects and hosted the Let's Move Event at McClatchy Park. The "Let's Move!" event engaged stakeholders, community members, motorists, pedestrians, bicyclists, and transit riders who travel on and live nearby the Broadway Corridor. This family-fun event provided community members with an opportunity to talk with project team members, learn about several key City initiatives and provide input on mobility opportunities and challenges in their neighborhood.

City projects included Vision Zero Top Five Study, Envision Broadway in Oak Park Project, Sacramento 2040 general plan update and the Electric Vehicle Blueprint Project.

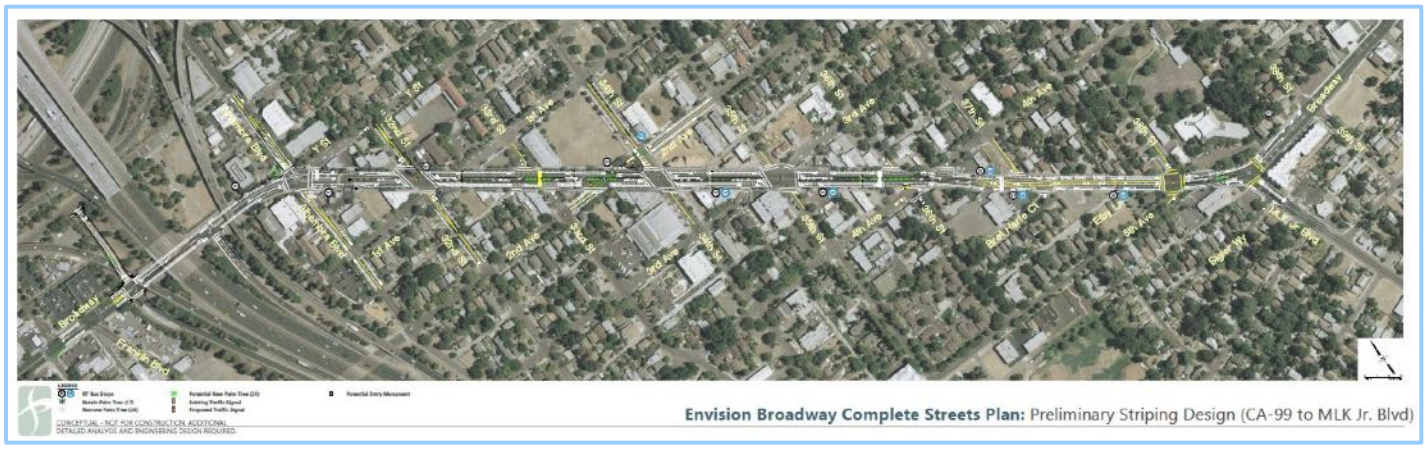
The event was structured in an open house / festival format and organized around a series of four information stations where attendees were able to review materials, ask questions of staff, and provide their input. The information stations focused on proposed countermeasures for the Broadway / Stockton corridor as part of the Vision Zero Top Five Study, the proposed alignment for the Broadway corridor between Franklin Boulevard and Martin Luther King Jr. Boulevard as part of the Envision Broadway in Oak Park Project, and the Electric Vehicle Blueprint project. Community members were encouraged to provide their input directly onto the display boards at each information station.

Family-friendly, movement-based activities and games were set-up between each information station. Streamed music played in the background as participants engaged in guided tai chi, flow movement, prompted group painting, a kid's obstacle course, and partner / group games such as twister and connect-four.

Station Overview

Below is the map that was displayed at the Envision Broadway in Oak Park station at Let's Move. The map shows proposed improvements to the project corridor. A large, high-resolution version of the map is available in this document's appendix.

Community members were asked to provide comments about the proposed improvements by placing a post note on the map.



Summary of Input

The project team received 24 comments on the corridor map.

The comments are numbered and separated by geographic location below. The map has been divided into four separate sections.

FEHR PEERS aim consulting

Section 1

Comments

1. Thanks for closing the bike gap.
2. Add a contra flow bike lane on or between 32nd Street and Alhambra.
3. Can we add physical separation for bike lanes through the interchange area?
4. I like the existing Oak Park sign.

Section 2

Comments

5. I like moving the bus stop.
6. I don't like the possibility of traffic but love the signals!
7. Love this! Thank you!
8. Slight distance for eastbound bikes with northbound vehicles?
9. Bust stop northbound between 34th and 35th Streets.
10. I like the left turn lanes.
11. Speeding enforcement!
12. It's difficult to cross when walking south.

Section 3

Comments

13. Create parklets with flowers and seating!
14. Permaculture, Bill Mollison, Geoff Lawson Food Forest.
15. Flowering trees for a bee habitat.
16. Traffic calming on 5th Avenue.
17. Permaculture food forest: Google it.

Section 4

Comments

18. I like two-way left turn lanes.
19. Can the bus stop be relocated to the traffic signal for pedestrian crossings?
20. I like the bike striping.
21. Love the realignment and highlighting of the bike conflict zone!
22. Highlight the bike and Sacramento Regional Transit lane conflict zone.
23. Love the wider sidewalk and trees.

Appendix

- Envision Broadway Corridor Improvements Map
- Boards presented at the pop-up workshop

★ ENVISION BROADWAY IN OAK PARK ★

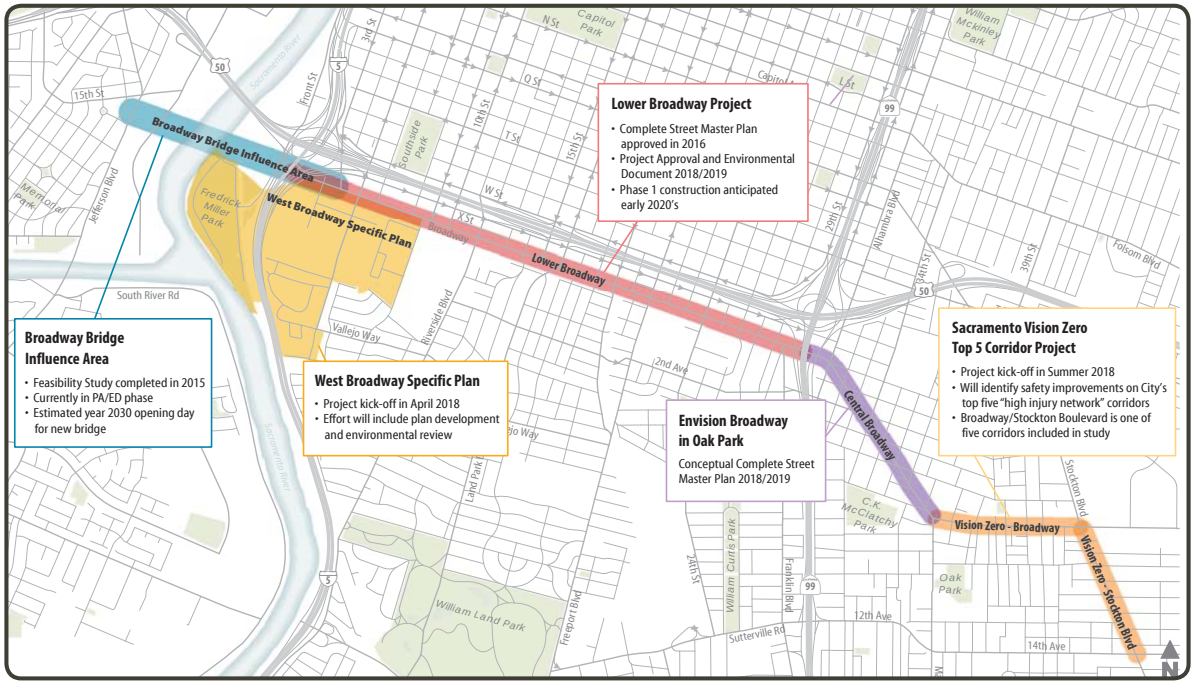
About the Project

The Envision Broadway in Oak Park Complete Street Plan will balance accessibility and enhance safety for all modes of transportation, and consider all users of the corridor including residents, businesses, and visitors in and around Oak Park.

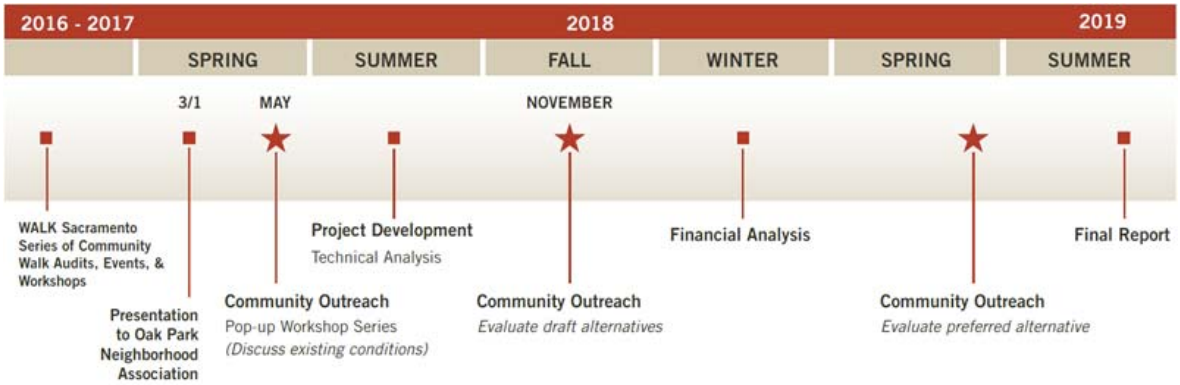
Originating from the community's desire for safer streets, this project will continue to be informed by community input.

The Broadway Corridor

There are five concurrent projects being completed by the City of Sacramento along the Broadway corridor, from the Sacramento River to Stockton Boulevard.



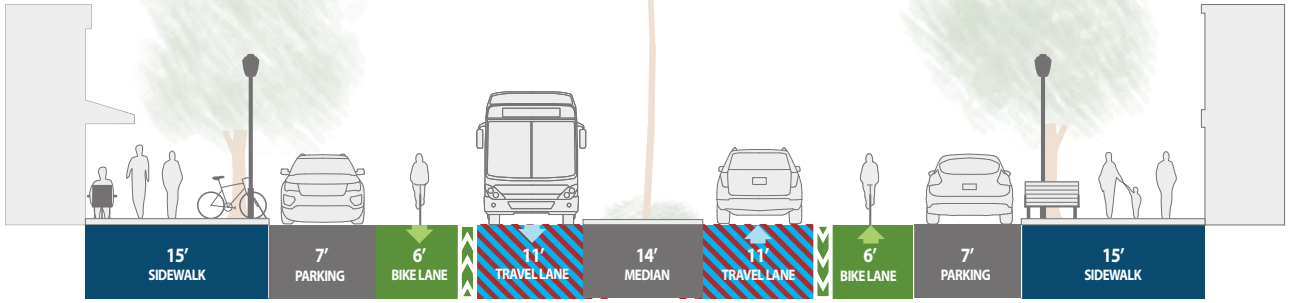
Project Schedule



★ ENVISION BROADWAY IN OAK PARK ★

Preferred Alternative

Two lane roadway with raised median or center turn lane, retain street parking, add buffered bike lanes, preserve or replace historic palm trees, and improve wide sidewalk with additional street trees and streetscape elements.



ROAD DIET WTIH BUFFERED BIKE LANES AND PLANTED MEDIANS
Alhambra Boulevard to 36th Street

ROAD DIET WTIH BUFFERED BIKE LANES WITH CENTER TURN LANE
36th Street to 38th Street

- Narrower lanes to help calm traffic
- Raised median with simplified intersections north of 36th Street
- New traffic signals at 32nd Street and 38th Street to improve left turn access
- Two-way left turn lane south of 36th Street
- Continuous buffered bike lane with travel side buffer
- Pedestrian refuges with wider median
- Many palm trees preserved mid-block, with opportunities for replacement of removed trees
- Much of the on-street parking is preserved along the corridor,
- Transit will have increased delay during congested times

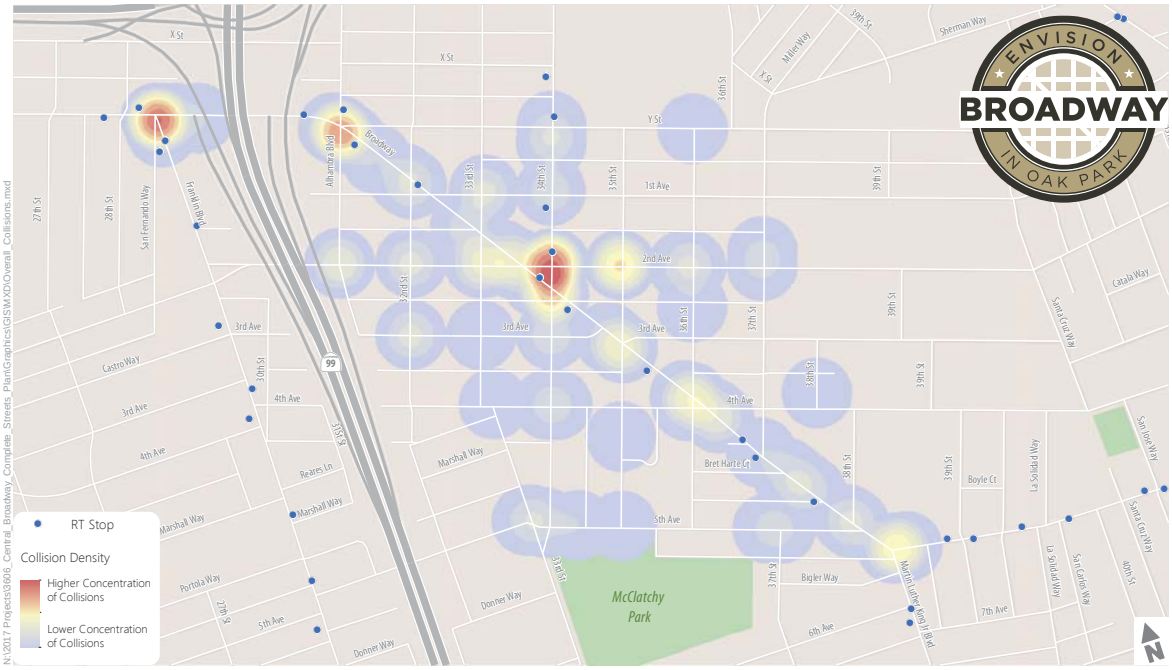
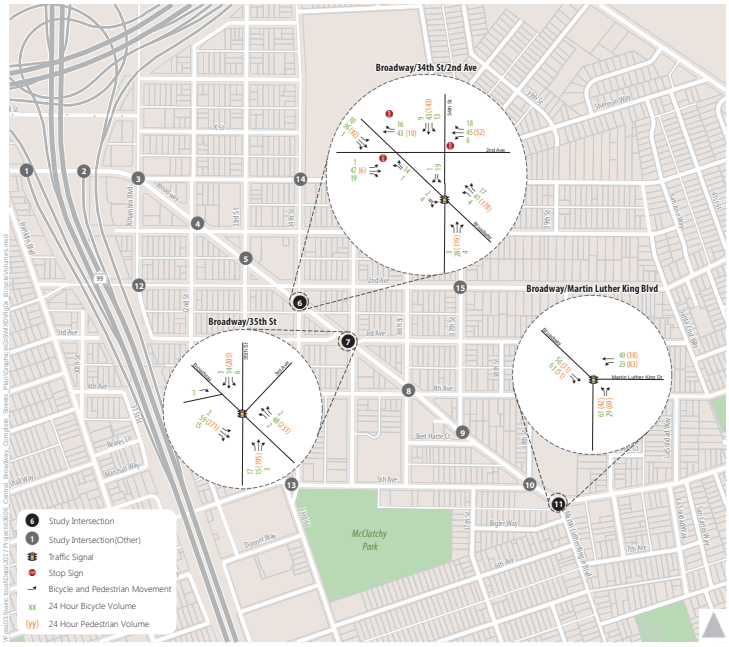


Figure 7

Overall Collisions - (2009-2017)



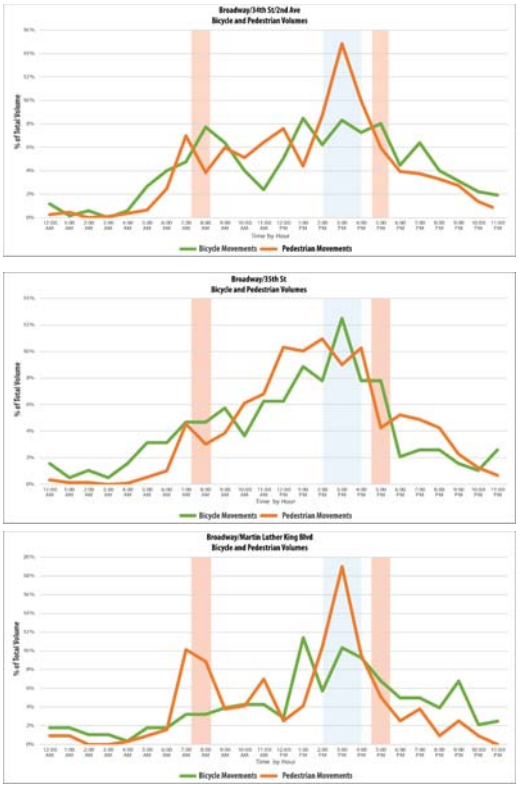


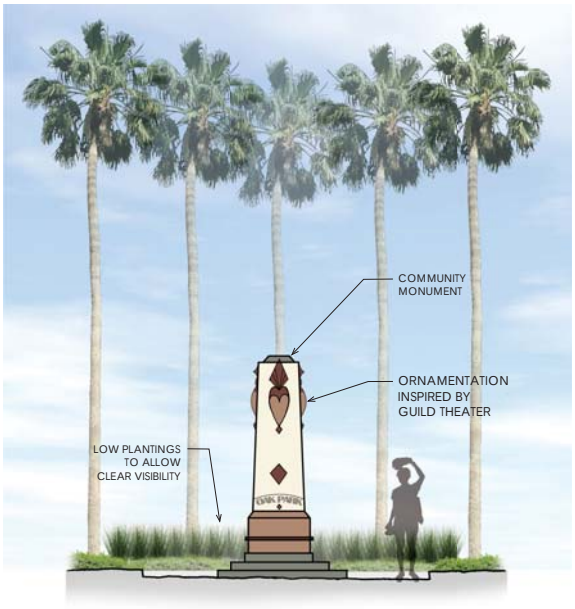
Figure 6

Bicycle and Pedestrian Volumes

★ ENVISION BROADWAY IN OAK PARK ★

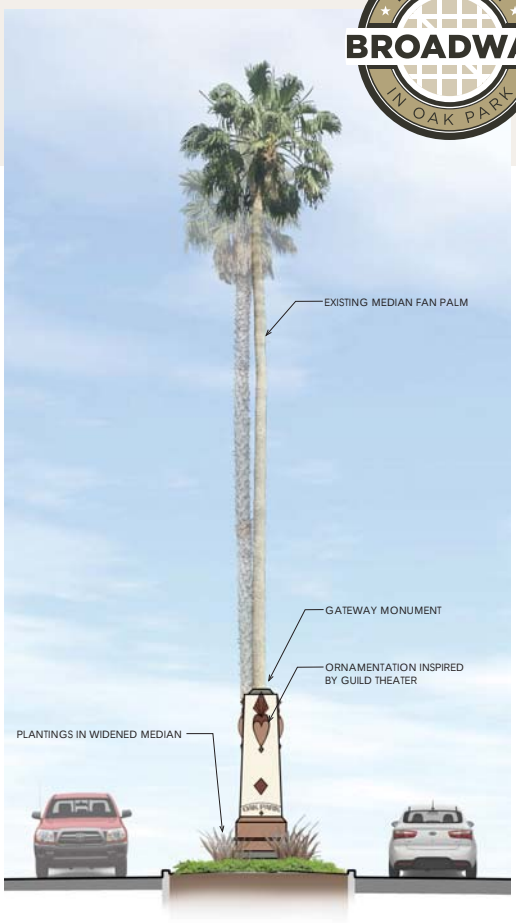
Placemaking

Wider medians and modified corners will provide opportunities for entry monuments and additional landscaping.



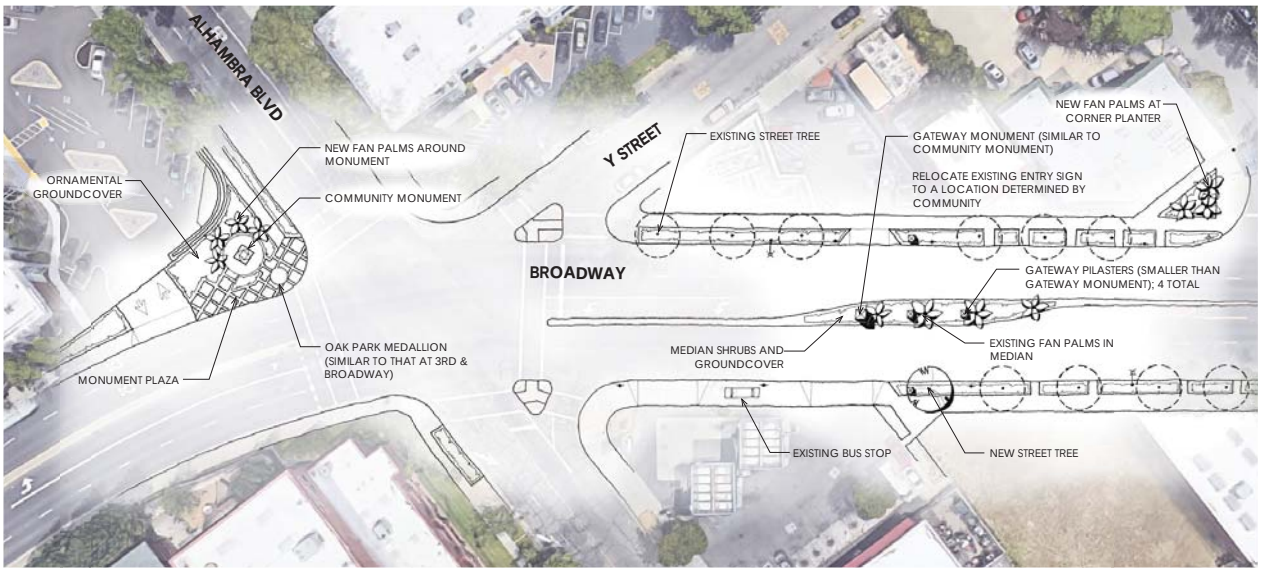
COMMUNITY MONUMENT
AT ALHAMBRA AND BROADWAY

MARK THOMAS



GATEWAY MONUMENT
IN MEDIAN

MARK THOMAS



OAK PARK NORTH GATEWAY

0' 10' 20' 40

MARK THOMAS

B | TRAFFIC MEMORANDUM

FEHR PEERS

MEMORANDUM

Date: November 12, 2019

To: Leslie Mancebo, City of Sacramento

From: Adrian Engel & Chase McFadden, Fehr & Peers

Subject: Envision Broadway in Oak Park Transportation Impact Study

RS18-3606

This memorandum documents the transportation and site analysis of the proposed Envision Broadway in Oak Park Complete Streets Concept, located in the City of Sacramento. **Figure 1** displays the project extent and study area.

Study Area & Data Collection

Local Roadway Network

Figure 2 displays the existing roadway network and intersection controls along within the study area. This figure highlights the unrestricted flow of vehicles that is possible along the Broadway corridor from Martin Luther King Boulevard to Alhambra Boulevard. Most of the streets that intersect Broadway have stop controls every couple blocks that prevent unrestricted, high-speed movement of vehicles. Key roadways in the study area include:

- **Broadway** is a major commercial corridor that carries almost 15,000 vehicles per day. Broadway consists of two 12 foot lanes in each direction. Broadway has dedicated turn pockets starting at 38th Avenue heading east. West, between Alhambra Boulevard and 36th Street, Broadway contains a landscaped median island with tall palm trees.
- **Alhambra Boulevard** is a north-south roadway that extends from B Street to 3rd Avenue. In addition to serving as one of the main roadways to access to East Sacramento and Midtown, Alhambra Boulevard provides access to the northbound Interstate 80 Business.
- **2nd Avenue** is an east-west roadway that extends from Riverside Boulevard in Land Park to 50th Street on the eastern side of the UC Davis Sacramento campus. 2nd Avenue provides access to Oak Park, Curtis Park, and Land Park to the east.
- **34th Street** is a north-south roadway that intersects Broadway. Like Alhambra Boulevard, 34th Street provides access to East Sacramento and from the US 50 EB offramp via a US 50 undercrossing.

- **5th Avenue** is an east-west roadway that runs discontinuously between Land Park neighborhood to the west with an eastern terminus of Broadway in Oak Park. 5th Avenue provides most direct access to Curtis Park neighborhood
- **Martin Luther King Boulevard** is a north-south roadway that begins at the southern end of the study corridor where Broadway cuts east and continues south until it intersects with Franklin Boulevard. MLK Boulevard is the main roadway providing access from Broadway to Central Oak Park and neighborhoods further south.
- **Y Street** is an east-west roadway that runs continuously from Alhambra Boulevard in the west to Stockton Boulevard in the east. Where it intersects with Broadway and Alhambra Boulevard, creating a 5 legged intersection, Y Street is a receiving only lane.

Study Area and Data Collection

A study area was developed with consideration of primary travel routes to the project vicinity. The following intersections were selected for analysis in consultation with the City of Sacramento and considered the roadway changes and expected changes to travel behavior:

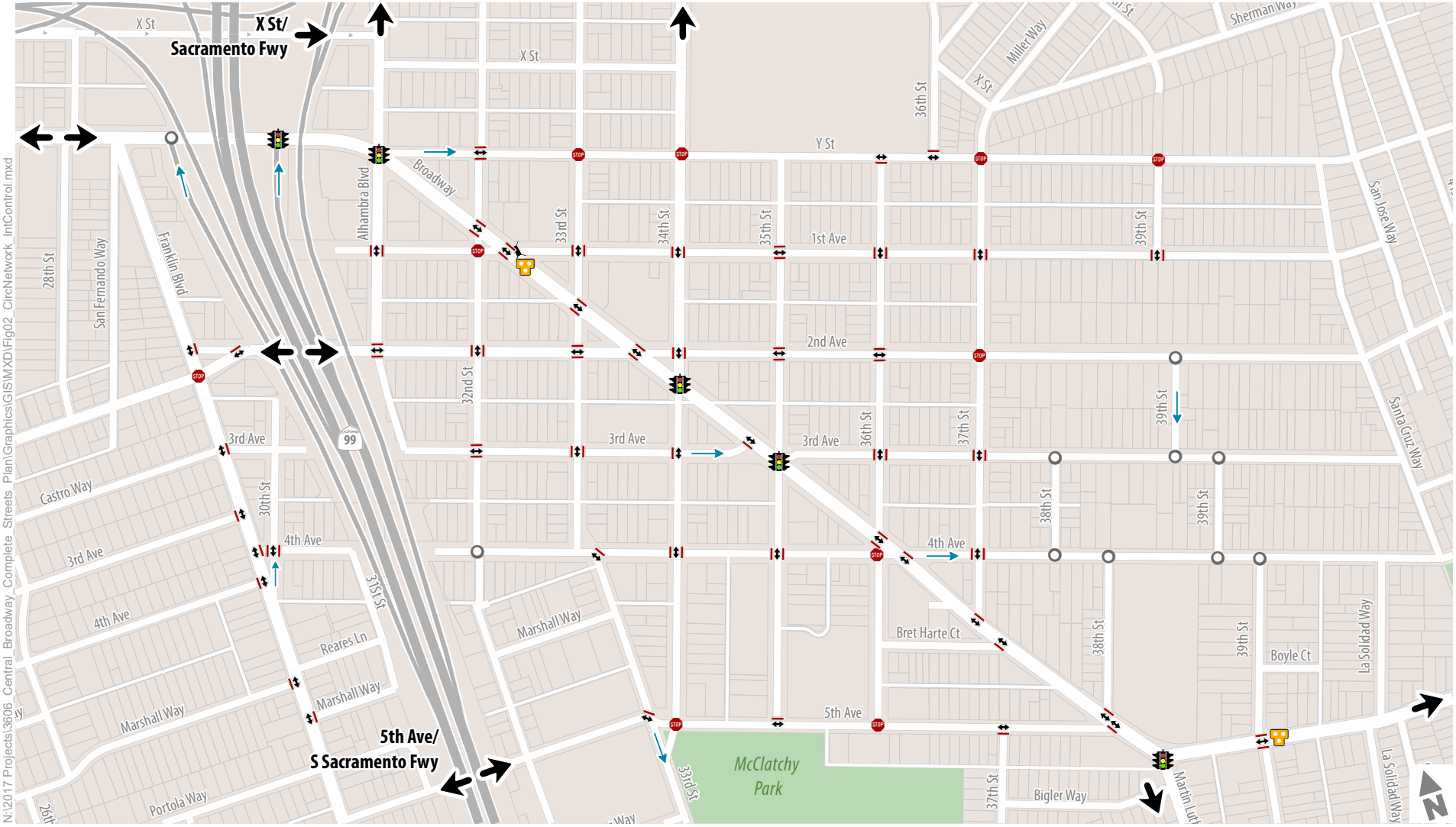
Intersections

1. Broadway / SR 99 On-Ramp
2. Broadway / SR 99 Off-Ramp
3. Broadway / Alhambra Boulevard / Y Street
4. Broadway / 32nd Street / 1st Avenue
5. Broadway / 33rd Street / 1st Ave-2nd Avenue Alley
6. Broadway / 2nd Avenue
7. Broadway / 35th Street / 3rd Avenue
8. Broadway / 36th Street / 4th Avenue
9. Broadway / 37th Street
10. Broadway / 38th Street / 5th Avenue
11. Broadway / Martin Luther King Jr Boulevard
12. Alhambra Blvd / 2nd Ave
13. 33rd St / 5th Ave
14. 34th St / Y St
15. 37th St / 2nd Ave
16. Broadway / 34th Street

Intersection turning movement counts were collected at the above intersection during the AM (7:00 AM to 9:00 AM) and PM (4:00 to 6:00 PM) peak commute periods on April 10th, 2018, when schools were in session and the weather was fair.

Figure 1

Study Area



All Way Stop
Side Street Stop
Signalized
"One Way" Street
Uncontrolled
Road Block
Pedestrian Hybrid Beacon
Major Access Point

Figure 2

Existing Network (Intersection Control)

Standards of Significance

The City of Sacramento's *2035 General Plan* (March 3, 2015) was used to determine significance criteria. The Mobility Element of the City of Sacramento's *2035 General Plan* outlines goals and policies that coordinate the transportation and circulation system with planned land uses. The following LOS policy is relevant to this study:

Policy M 1.2.2 The City shall implement a flexible context-sensitive Level of Service (LOS) standard, and will measure traffic operations against the vehicle LOS thresholds established in this policy. The City will measure vehicle LOS based on the methodology contained in the latest version of the Highway Capacity Manual (HCM) published by the Transportation Research Board. The City's specific vehicle LOS thresholds have been defined based on community values with respect to modal priorities, land use context, economic development, and environmental resources and constraints. As such, the City has established variable LOS thresholds appropriate for the unique characteristics of the City's diverse neighborhoods and communities. The City will strive to operate the roadway network at LOS D or better for vehicles during typical weekday conditions including AM and PM peak hour with certain exceptions mapped on Figure M-1 (and listed in the actual General Plan document).

A. Core Area (Central City Community Plan Area) – LOS F allowed
B. Priority Investment Areas – LOS F allowed
C. LOS E roadways (11 distinct roadway segments listed, including Broadway from Stockton Blvd. to 65th Street outside of the study area). LOS E is allowed for these roadways because expansion of the roadways would cause undesirable impacts or conflict with other community values. LOS E is also allowed on all roadway segments and associated intersections located within ½-mile walking distance of light rail stations.
D. LOS F roadways (24 distinct segments listed)
E. If maintaining the above LOS standards would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals, LOS E or F conditions may be accepted provided that provisions are made to improve the overall system, promote non-vehicular transportation and/or implement vehicle trip reduction measures as part of a development project or a city-initiated project. Additionally, the City shall not expand the physical capacity of the planned roadway network to accommodate a project beyond that identified in Figure M4 and M4a (2035 General Plan Roadway Classification and Lanes).

Analysis Methods

Intersection Operations

Intersection operations were analyzed using Synchro 10 software and use performance measures based on intersection delay and level of service.

LOS is a quantitative measure of traffic operating conditions whereby a letter grade from A (the best) to F (the worst) is assigned. In general, LOS A represents free-flow conditions with no congestion and LOS F represents severe congestion and delay under stop-and-go conditions.

A LOS grade is assigned to each intersection based on the methodologies contained in the *Highway Capacity Manual 6th Edition* (HCM) (Transportation Research Board, 2016). The HCM methodology determines the LOS at signalized intersections and unsignalized all-way stop controlled intersections by comparing the weighted average control delay per vehicle at the intersection. At side-street stop-controlled intersections, LOS is calculated for each movement in addition to the intersection overall. **Table 1** presents delay ranges for each LOS for stop and signal-controlled intersections.

Table 1: Level of Service Definitions for Study Intersections

Level of Service	Average Control Delay (seconds/vehicle)	
	Unsignalized Intersection	Signalized Intersections
A	≤10	≤10
B	>10 to 15	>10 to 20
C	>15 to 25	>20 to 35
D	>25 to 35	>35 to 55
E	>35 to 50	>55 to 80
F	>50	>80

Source: *Highway Capacity Manual, 6th Edition,* Transportation Research Board, 2016.

Bicycle Level of Traffic Stress

Bicycle level of traffic stress (LTS) refers to the comfort associated with roadways, or the mental ease people experience riding on them. Metrics for bicycling LTS were developed at the Mineta Transportation Institute and published in the report *Low-Stress Bicycling and Network Connectivity* (2012). **Table 2** displays the LTS tiers 1 to 4, with 1 being the least stressful and 4 being the most stressful.

Table 2: Level of Traffic Stress Descriptions

Level of Traffic Stress	Description
LTS 1	Most children and elderly riders can tolerate this level of stress and feel safe and comfortable. LTS 1 roadways typically require more separation from traffic.
LTS 2	This is the highest level of stress that the mainstream adult population will tolerate while still feeling safe.
LTS 3	Bicyclists who are considered "enthused and confident" but still prefer having their own dedicated space for riding will tolerate this level of stress and feel safe while bicycling.
LTS 4	For bicyclists, this is tolerated only by those characterized as "strong and fearless," which comprises a small percentage of the population. These roadways have high-speed limits, multiple travel lanes, limited or non-existent bike lanes and signage, and large distances to cross at intersections.

Source: *Mekuria, Maaza C., Peter G. Furth, and Hilary Nixon, (2012). Low-Stress Bicycling and Network Connectivity. San Jose, California: Mineta Transportation Institute.*

Pedestrian Level of Traffic Stress

The Pedestrian LTS methodology builds on Mekuria, Furth, and Nixon's 2012 *Low Stress Bicycling and Network Connectivity* report and LTS methodology with a corresponding index for pedestrian comfort. A tool to evaluate Pedestrian and Bicycle LTS called Streetscore+ was developed by Fehr & Peers and includes recommended parameters for the pedestrian environment provided by the NACTO Urban Streets Design Guide (USDG) and additional considerations of comfort informed by practitioner and best practice experience. **Table 3** displays the Streetscore+ tiers, corresponding to level of traffic stress experienced as a pedestrian.

Table 3: Pedestrian Level of Traffic Stress Streetscore+ Descriptions

Level of Traffic Stress	Description
Streetscore+ 1	Highly comfortable, pedestrian-friendly, and easily navigable for pedestrians of all ages and abilities, including seniors or school-aged children walking unaccompanied to school. These streets provide an ideal "pedestrian-friendly" environment.
Streetscore+ 2	Generally comfortable for many pedestrians, but parents may not feel comfortable with children walking alone. Seniors may have concerns about the walking environment and take more caution. These streets may be part of a "pedestrian-friendly" environment where it intersects with a more auto-oriented roadway or other environmental constraints.

Table 3: Pedestrian Level of Traffic Stress Streetscore+ Descriptions

Level of Traffic Stress	Description
Streetscore+ 3	Walking is uncomfortable but possible. Minimum sidewalk and crossing facilities may be present, but barriers are also present that make the walking experience uninviting and uncomfortable.
Streetscore+ 4	Walking is a barrier and is very uncomfortable or even impossible. Streets have limited or no accommodation for pedestrians and are inhospitable and possibly unsafe environment for pedestrians.

Source: Fehr & Peers, 2019

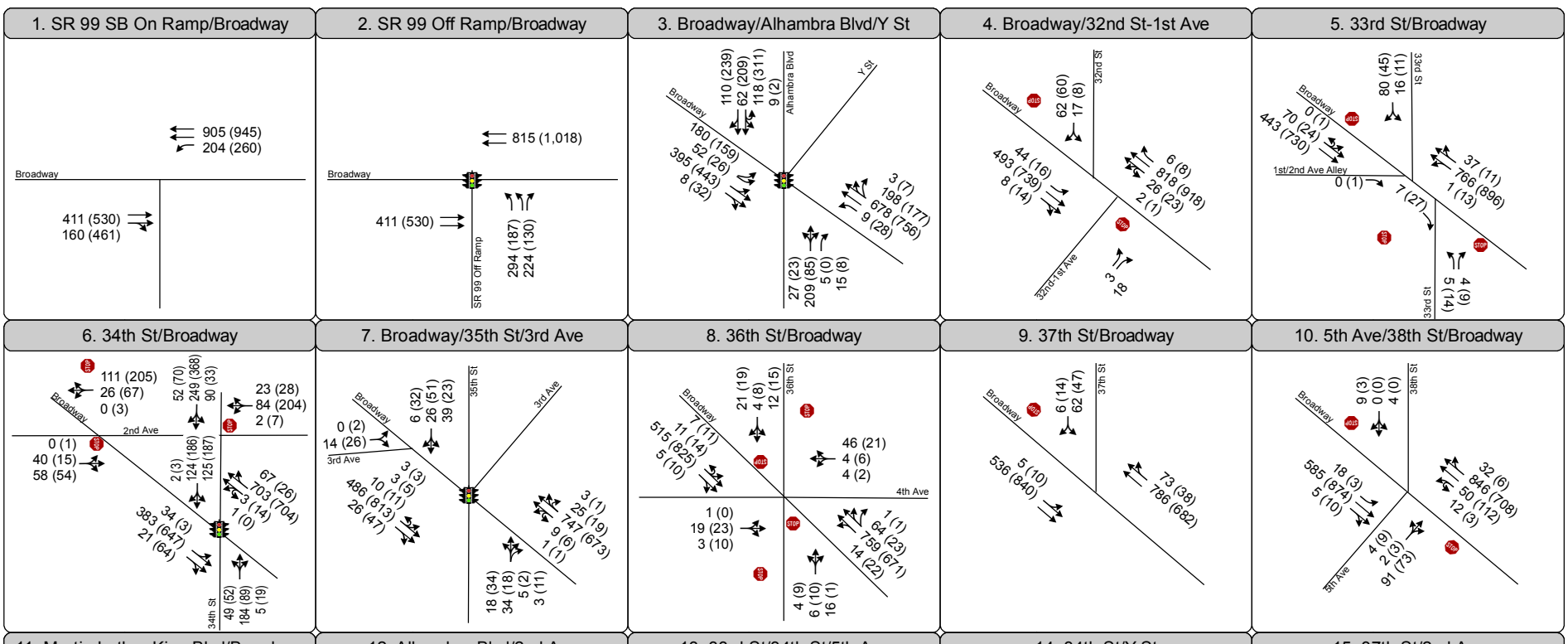
Existing Conditions

Intersection Operations

The following procedures were applied for the analysis of existing conditions in Synchro 10 software:

- Roadway geometric data were gathered using aerial photographs and field observations.
- Peak hour traffic volumes were entered according to the peak hour of the study area. The AM peak hour occurred between 7:15 AM and 8:15 AM, and the PM peak hour occurred between 4:30 PM and 5:30 PM.
- Consistent with the City of Sacramento *Traffic Impact Study Guidelines*, a peak hour factor of 1.0 was used to analyze level of service (LOS).
- Peak hour pedestrian and bicycle volumes were collected and entered in the appropriate crosswalk or bike lane.
- Heavy vehicle percentages were based on traffic counts and applied throughout the network. A heavy vehicle percentage of two and one were observed during the AM and PM peak hours, respectively.
- Signal phasing and timings at intersection were provided by City of Sacramento.
- Speeds for the model network were based on the posted speed limit.

Figure 3 shows the AM and PM peak hour traffic volumes and lane configurations at the study intersection, and **Table 4** summarizes AM and PM peak hour level of service and delay. Technical calculations are attached.



Turn Lane

AM (PM) Peak Hour Traffic Volume

Traffic Signal

Stop Sign

Figure 3

Peak Hour Traffic Volumes and Lane Configurations - Existing Conditions

Table 4: Peak Hour Intersection Level of Service – Existing Conditions

Intersection	Control	LOS[1] / Delay[2]	
		AM Peak Hour	PM Peak Hour
1. Broadway / SR 99 On-Ramp	SSSC	2 / A	10 / A
2. Broadway / SR 99 Off-Ramp	Signal	8 / A	9 / A
3. Broadway / Alhambra Boulevard / Y Street	Signal	17 / B	21 / C
4. Broadway / 32nd Street / 1st Avenue	SSSC	1 / A	1 / A
5. Broadway / 33rd Street / 1st Ave-2nd Avenue Alley	SSSC	1 / A	1 / A
6. Broadway / 2nd Avenue	SSSC	4 / A	10 / A
7. Broadway / 35th Street / 3rd Avenue	Signal	10 / A	16 / B
8. Broadway / 36th Street / 4th Avenue	SSSC	1 / A	3 / A
9. Broadway / 37th Street	SSSC	2 / A	2 / A
10. Broadway / 38th Street / 5th Avenue	SSSC	2 / A	3 / A
11. Broadway / Martin Luther King Jr Boulevard	Signal	17 / B	23 / C
12. Alhambra Blvd / 2nd Ave	SSSC	3 / A	4 / A
13. 33rd St / 5th Ave	AWSC	3 / A	2 / A
14. 34th St / Y St	AWSC	11 / B	19 / C
15. 37th St / 2nd Ave	AWSC	7 / A	7 / A
16. Broadway / 34th Street	Signal	17 / B	25 / C

Notes:

1. "LOS" represents level of service, calculated based on methodologies contained in the *Highway Capacity Manual, 6th Edition* (Transportation Research Board, 2016).
2. Delay is reported in seconds per vehicle for the overall intersection for signalized intersections.
3. "SSSC" represents side-street stop control. "AWSC" represents all way stop control.

Source: Fehr & Peers, 2019.

During the AM peak hour, all intersections operate at LOS A or B conditions, reflective of generally light levels of congestions throughout the corridor. During PM peak hour, intersections at either end of the study corridor degrade to LOS C conditions with stronger demand along Broadway. Additionally, intersections along 34th Street experience LOS C conditions, due to high southbound demand from return trips home.

Table 4: Peak Hour Travel Time – Existing Conditions

Segment	Travel Time (seconds)	
	AM Peak Hour	PM Peak Hour
EB Broadway – SR 99 On-Ramp to Martin Luther King Boulevard	164	191
WB Broadway – Martin Luther Boulevard to SR 99 On-Ramp	168	181

Average travel time between SR 99 On-Ramp and Martin Luther King Blvd was estimated to take between approximately 160 and 190 seconds, depending on direction and time of day.

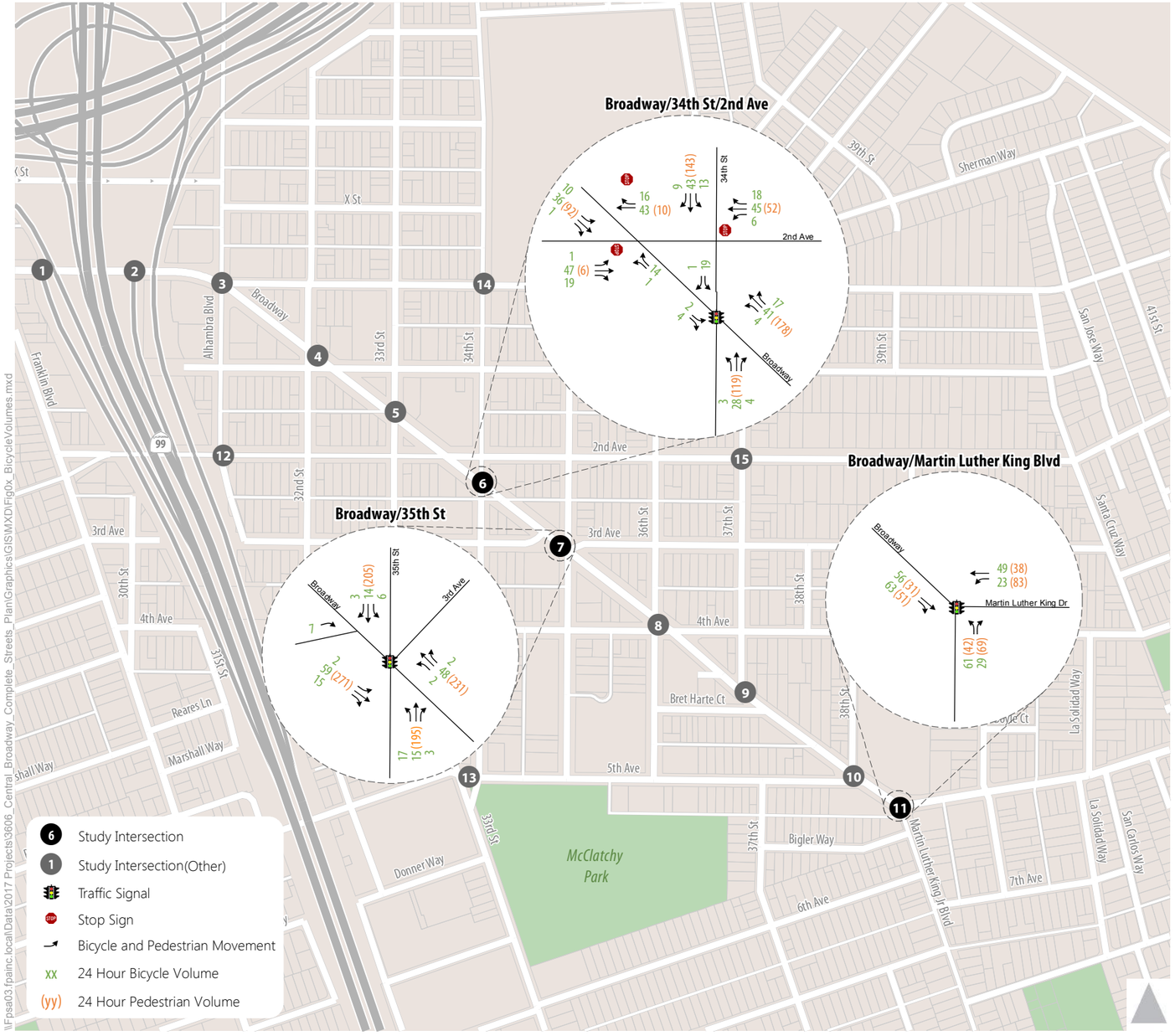
Bicycle and Pedestrian Network

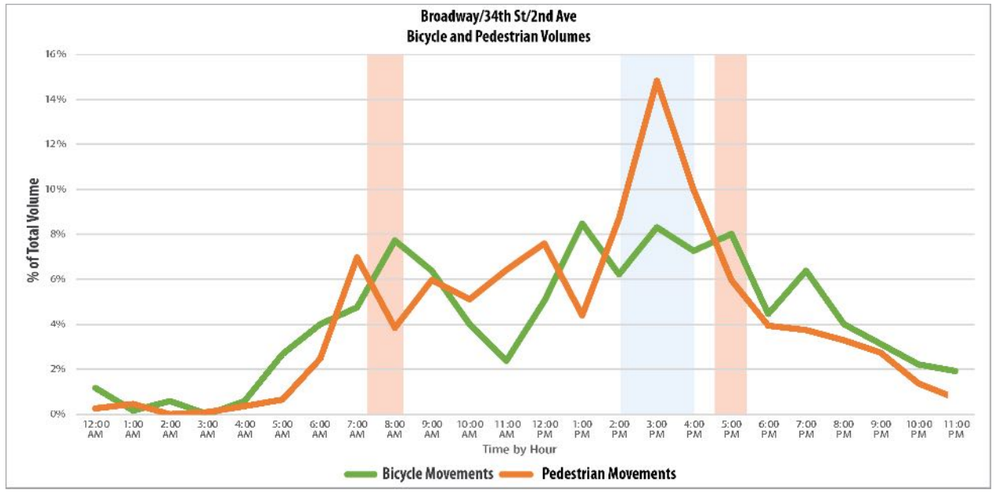
Figure 4 shows 24-hour bicycle and pedestrian volumes at three intersections that have high walking and biking activity. This graphic highlights the midday peak in pedestrian and bicycle activity, corresponding with the bell schedule of the several schools in the immediate vicinity.

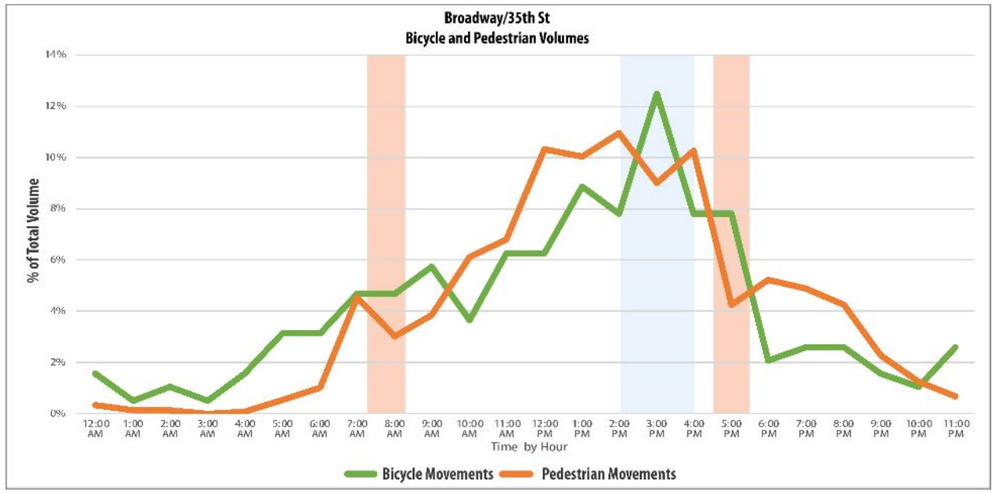
Bicycle Infrastructure

Figure 5 shows the existing bicycle facilities and major access points within the study area, in addition to existing bicycle network facilities and facilities that are proposed in the Sacramento City/County Bikeway Master Plan. Currently, Broadway lacks enhanced infrastructure for bicyclists. The lack of bicycle facilities, coupled with high traffic speeds, makes active travel difficult. There are about 1,300 feet of discontinuous Class II bicycle lanes (lane stripes) on both sides of Broadway near the MLK Boulevard intersection, with lane striping starting and stopping abruptly midblock. Although Alhambra Boulevard, 2nd Avenue, 34th Street, 5th Avenue, and 37th Street are classified as bicycle routes within the City's Bicycle Master Plan, there are only marked facilities on 2nd Avenue and a portion of Alhambra north of Broadway. There are no buffered or separated facilities in this neighborhood to provide additional protection to those traveling by bike through the corridor.

Figure 6 displays the bicyclist level of traffic stress results. The Bicyclist LTS results show most of the study corridor is uncomfortable for most bicycle users, largely due to the high number of vehicle travel lanes. The section of Broadway running from Alhambra Blvd to 37th Street is very uncomfortable and possibly even impossible for most roadway users due to high traffic speed limits in a mixed traffic bicycling environment.







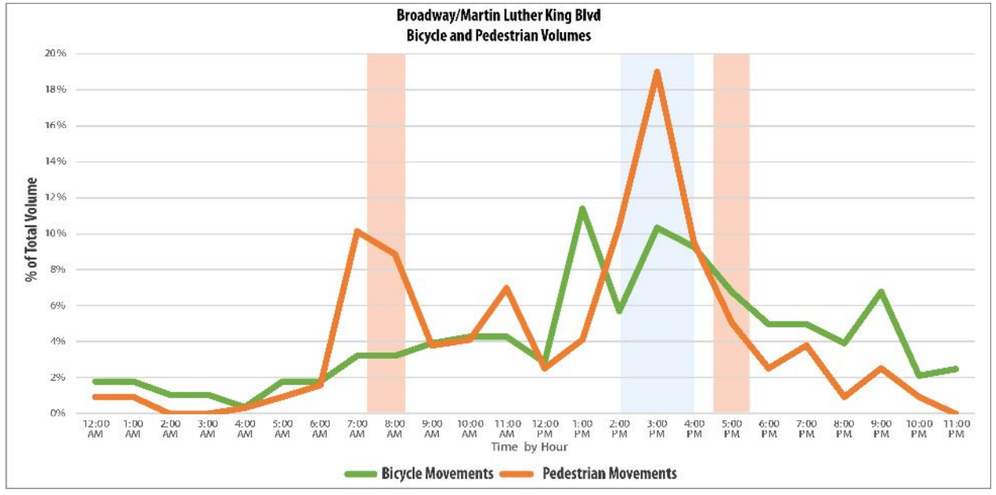


Figure 4

Bicycle and Pedestrian Volumes

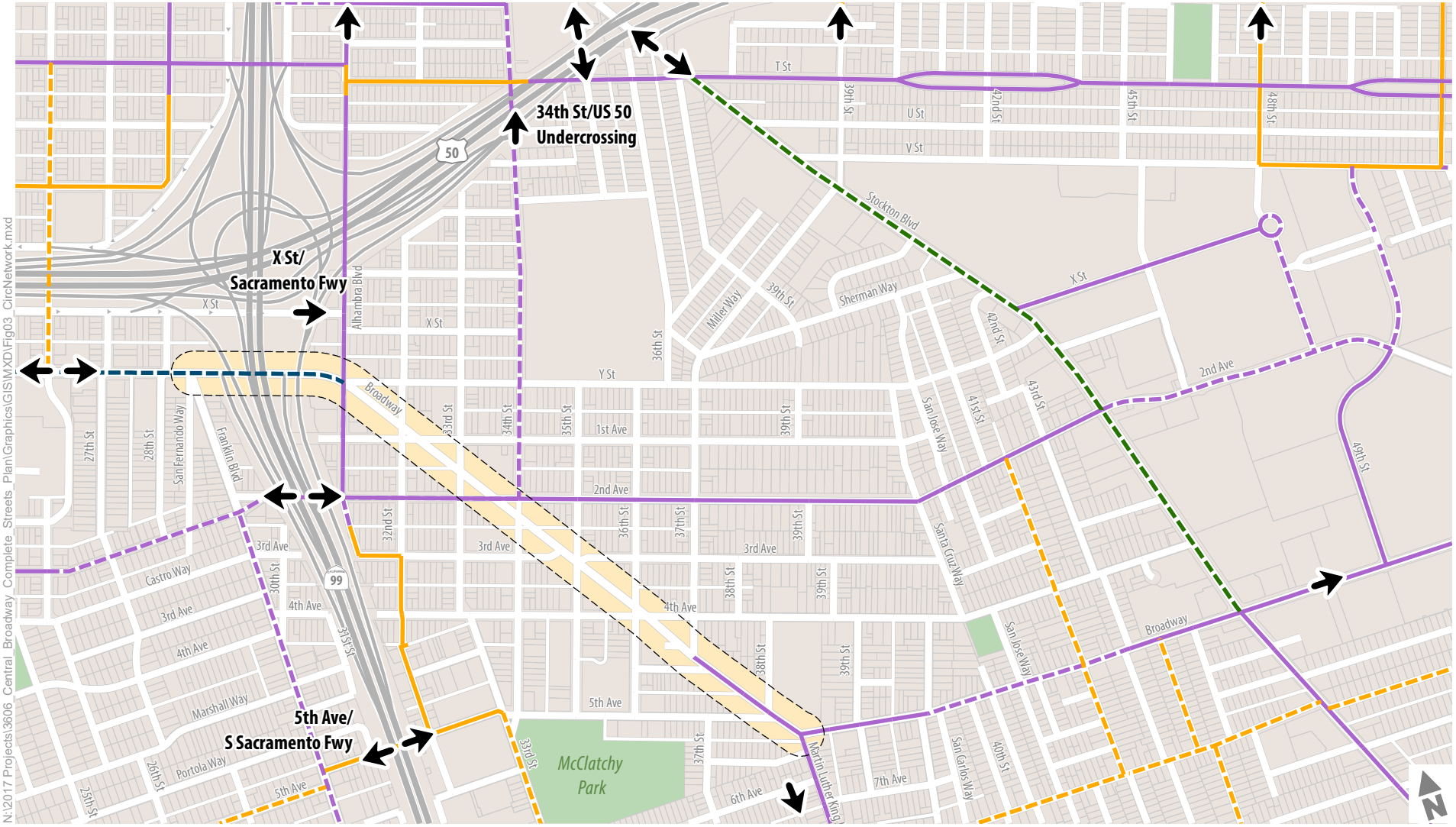


Figure 5

Existing and Planned Bicycle Network

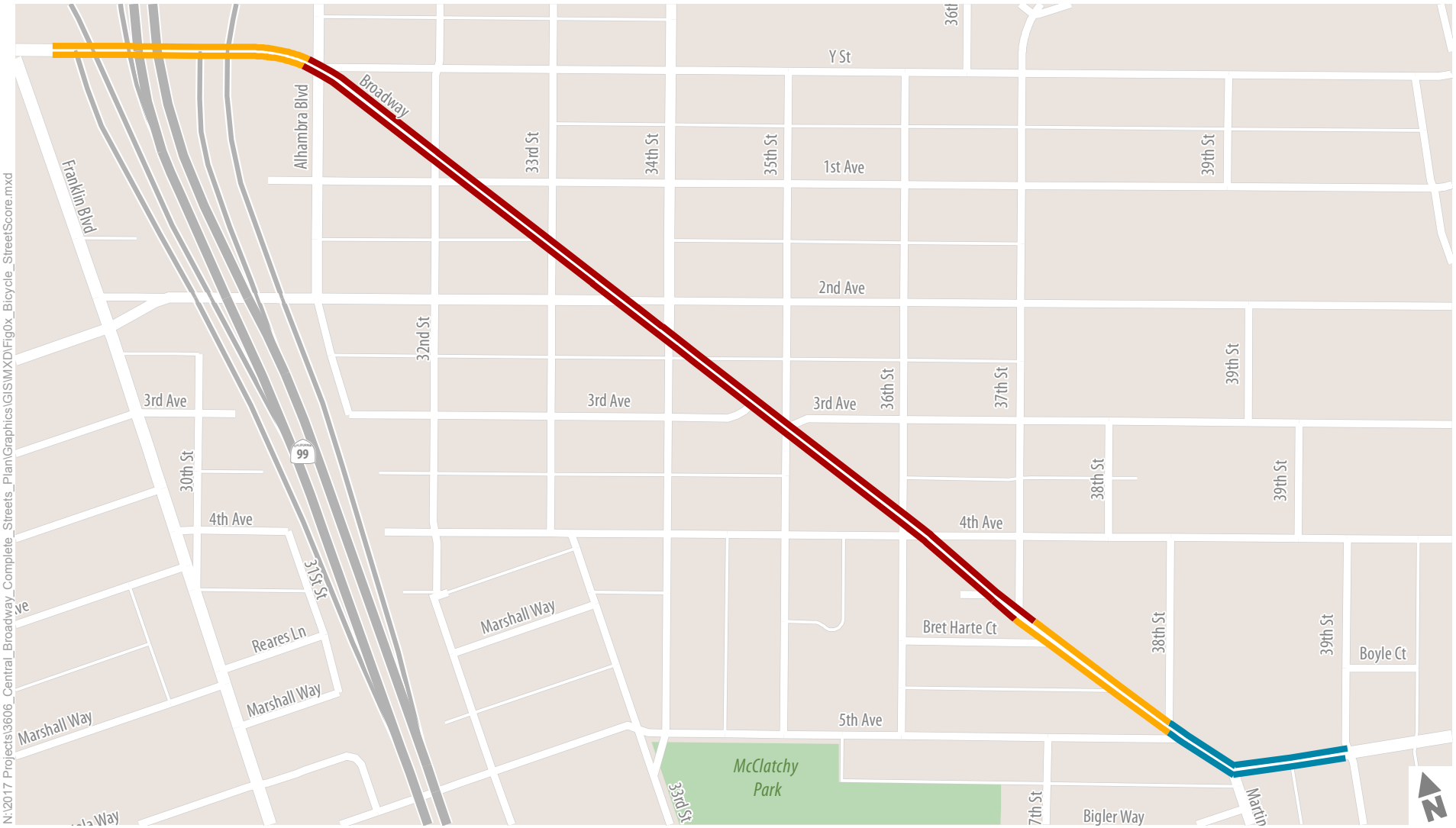


Figure 6

Bicycle Streetscore - Level of Traffic Stress

The southeast end is generally comfortable and scored an LTS 2, in part to the dedicated bicycle lane and raised median, thereby providing more protection for bicyclists from oncoming vehicle traffic.

Pedestrian Infrastructure

Pedestrian travel is accommodated along Broadway with mostly continuous large sidewalks, paralleled by landscaped planters and trees that provide shade and barrier to the roadway along Alhambra Boulevard to 4th Avenue. The tree canopy is denser in areas north of Broadway as well as south of Broadway.

Figure 7 displays the Streetscore+ results throughout the corridor. The Broadway corridor generally has comfortable sidewalk facilities, but lack of crosswalks within 400 feet of one another restricts crossing accessibility along Broadway.

Collision History

Data from the Statewide Integrated Traffic Records System (SWITRS) was obtained to assess the collision history within the corridor. SWITRS is a database that serves to collect and process data gathered from a collision scene.

Between 2009 and 2017, a total of 177 collisions were reported in the study area. **Figure 8** displays the collision density throughout the study area, with higher concentrations of collisions in red and lower concentrations in blue. This figure highlights how the highest concentration of collisions occurs at skewed intersections in the study area. This figure also highlights that the highest concertation of collisions is at a trio of intersections comprised of Broadway, 34th Street, and 2nd Avenue. There were no fatal accidents reported during the eight-year reporting period, but several collisions resulted in a serious injury.

In the five year period between 2009 and 2017, a total of 26 accidents involved bicyclists. There were 2 reported collisions with a bicycle that involved a serious injury that occurred on or within close proximity to the Broadway Corridor.[1] **Figure 9** shows the location of bicycle collisions along the project corridor.

Figure 10 displays the collisions involving pedestrians between 2009 and 2017, which highlights how the section between 4th Avenue and Martin Luther King is an especially risky walking environment.

Preferred Concept Analysis

The Preferred Concept consists of a road diet along Broadway between SR 99 On Ramp and Martin Luther King Boulevard. The Preferred Concept also consists of safety and circulation improvements along the corridor which includes the signalization of Broadway & 33rd Street, Broadway & 2nd Ave, Broadway & 38th

[1] SWITRS 2009 – 2017 Crash Data

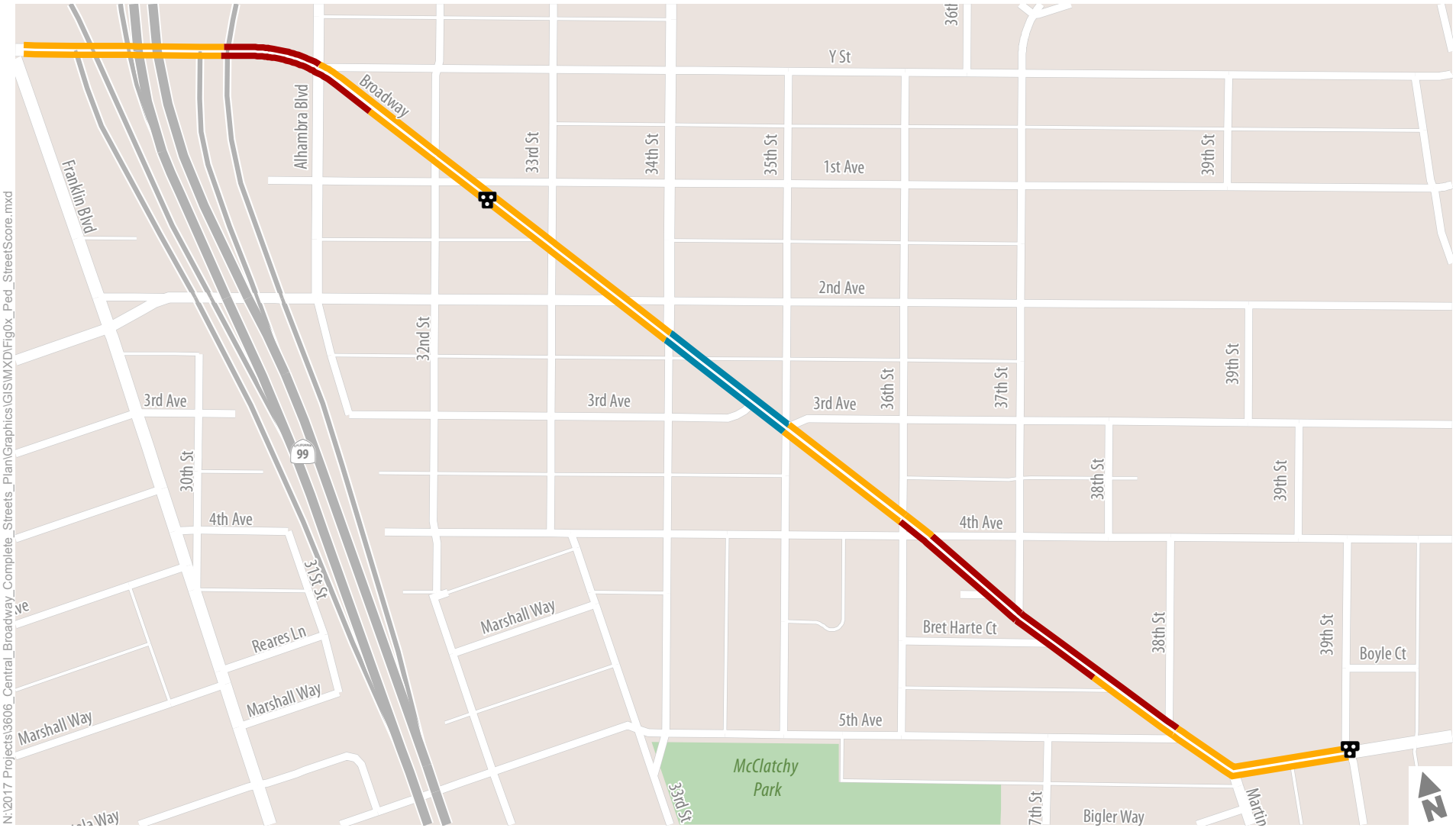


Figure 7

Pedestrian Streetscore - Level of Traffic Stress

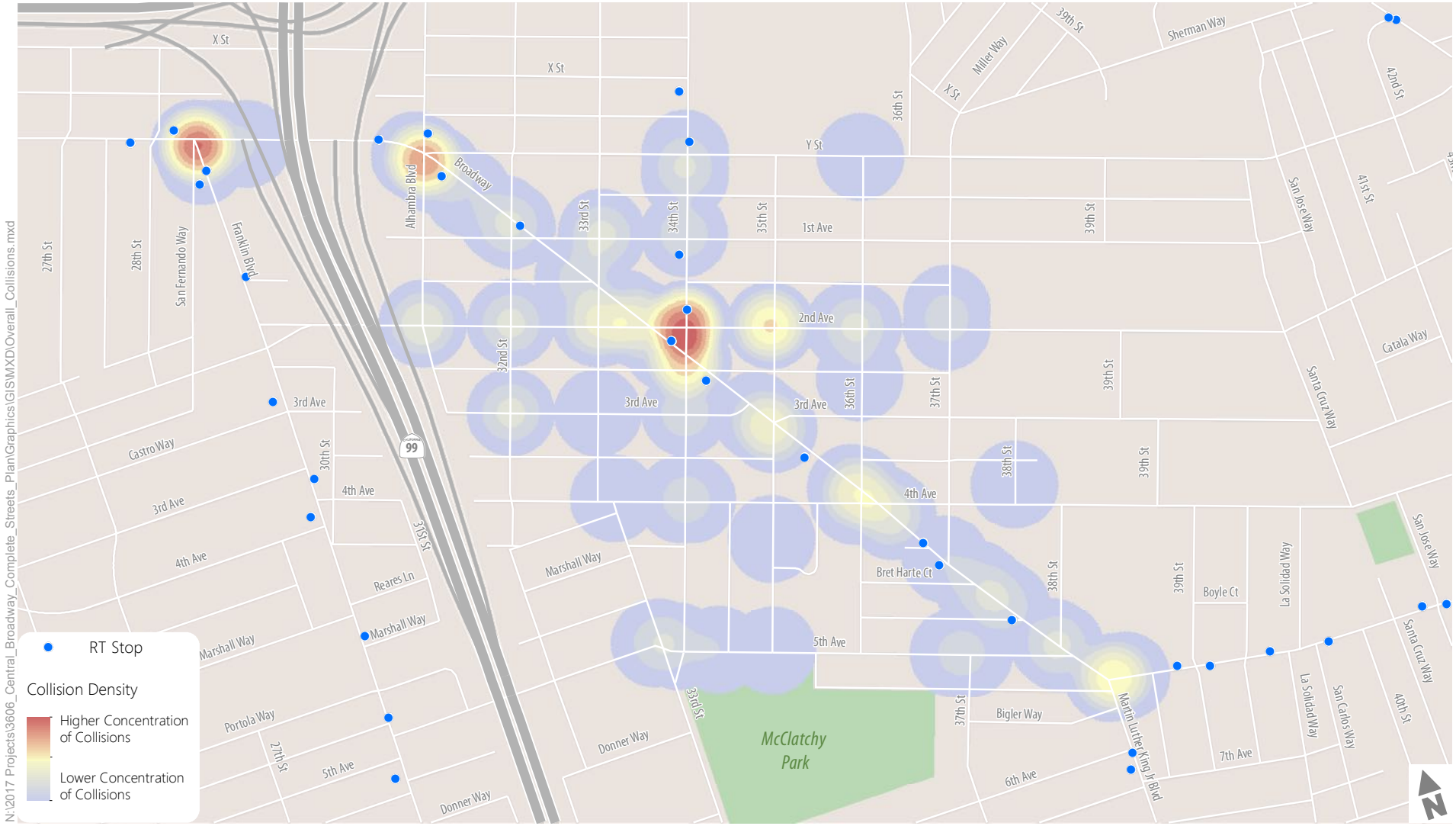


Figure 8

Overall Collisions - (2009-2017)

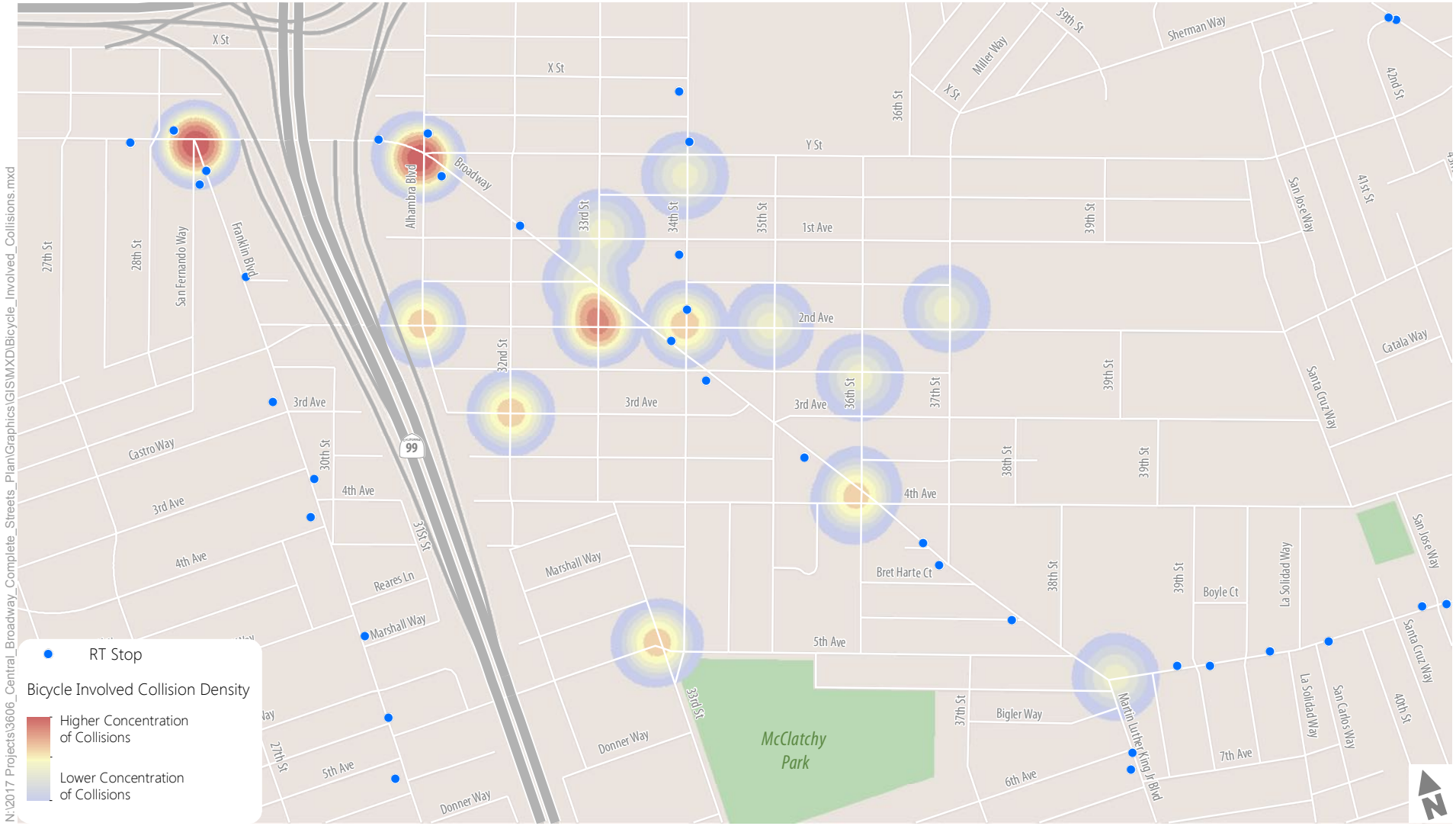


Figure 9

Bicycle Involved Collisions - (2009-2017)

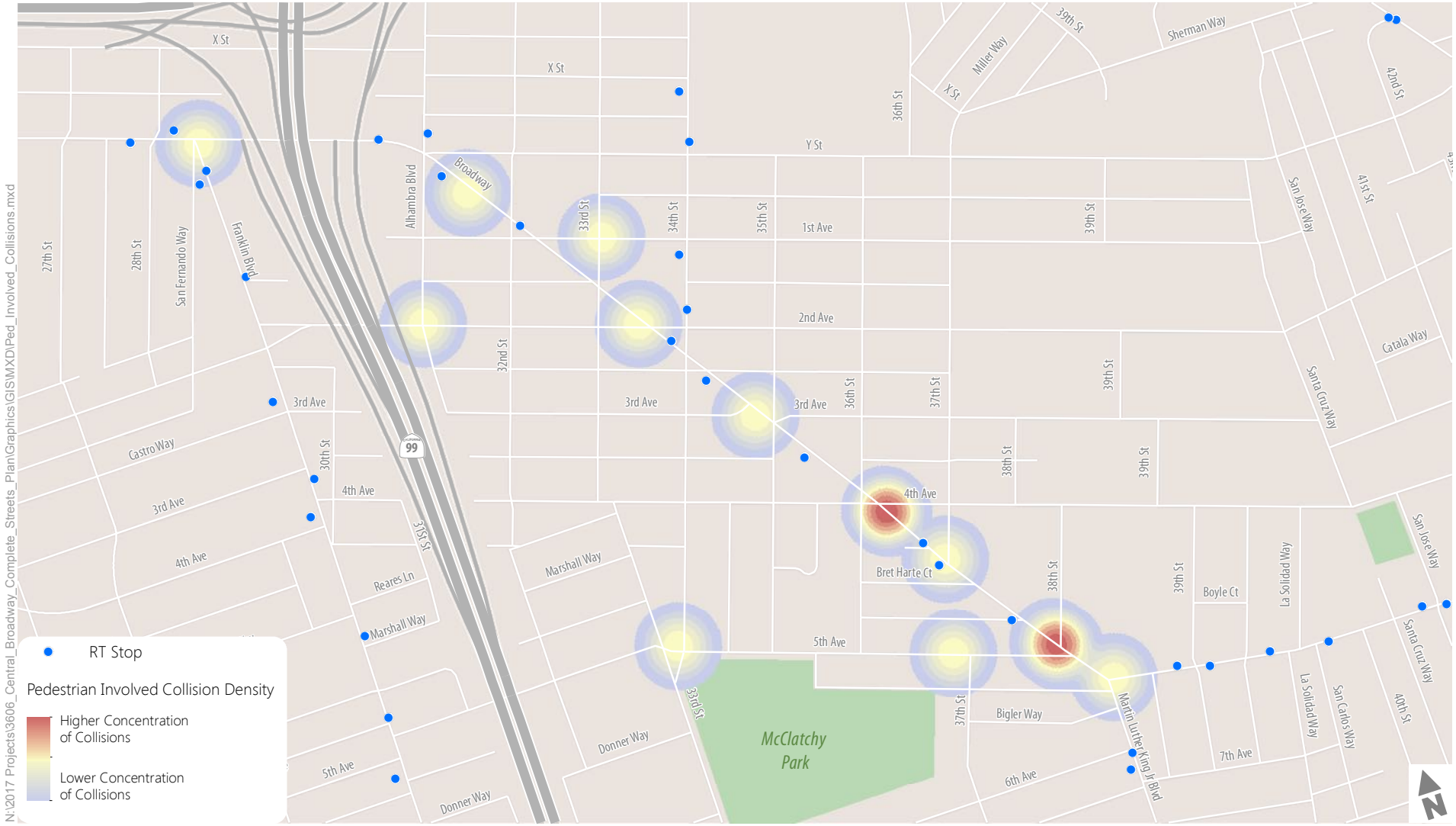


Figure 10

Pedestrian Involved Collisions - (2009-2017)

Street-5th Avenue , and the closure of 2nd Avenue to vehicles between 34th Street and Broadway, and number of right in-right out only restrictions.

Traffic Forecasts

The SACMET regional travel demand model (2016 MTP/SCS), developed and maintained by SACOG, was used to forecast expected changes in daily traffic and peak hour turning movement volumes under Preferred Concept conditions. The roadway network was modified such that Broadway goes from having two lanes of travel in each to direction to one lane of travel in each direction between SR 99 On Ramp and Martin Luther King Boulevard. **Figure 11** shows the forecasted AM and PM peak hour traffic volumes and assumed lane configurations at the study intersections.

Intersection Operations

The intersection operations analysis results for Preferred Concept conditions are shown in **Table 5**.

Table 5: Peak Hour Intersection Level of Service – Preferred Concept Conditions

Intersection	Existing Conditions LOS[1] / Delay[2]			Preferred Concept Conditions LOS[1] / Delay[2]		
	Control	AM Peak Hour	PM Peak Hour	Control	AM Peak Hour	PM Peak Hour
1. Broadway / SR 99 On-Ramp	SSSC	2 / A	10 / A	Signal	19 / B	14 / B
2. Broadway / SR 99 Off-Ramp	Signal	8 / A	9 / A	Signal	12 / B	7 / A
3. Broadway / Alhambra Boulevard / Y Street	Signal	17 / B	21 / C	Signal	44 / D	39 / D
4. Broadway / 32nd Street / 1st Avenue	SSSC	1 / A	1 / A	Signal	26 / C	33 / C
5. Broadway / 33rd Street / 1st Ave-2nd Avenue Alley	SSSC	1 / A	1 / A	SSSC	11 / B	35 / D
6. Broadway / 2nd Avenue	SSSC	4 / A	10 / A	Signal	7 / A	10 / B
7. Broadway / 35th Street / 3rd Avenue	Signal	10 / A	16 / B	Signal	36 / D	34 / C
8. Broadway / 36th Street / 4th Avenue	SSSC	1 / A	3 / A	SSSC	12 / B	7 / A
9. Broadway / 37th Street	SSSC	2 / A	2 / A	SSSC	9 / A	5 / A
10. Broadway / 38th Street / 5th Avenue	SSSC	2 / A	3 / A	Signal	17 / B	22 / C
11. Broadway / Martin Luther King Jr Boulevard	Signal	17 / B	23 / C	Signal	33 / C	31 / C
12. Alhambra Blvd / 2nd Ave	SSSC	3 / A	4 / A	SSSC	3 / A	3 / A

Table 5: Peak Hour Intersection Level of Service – Preferred Concept Conditions

Intersection	Existing Conditions LOS[1] / Delay[2]			Preferred Concept Conditions LOS[1] / Delay[2]		
	Control	AM Peak Hour	PM Peak Hour	Control	AM Peak Hour	PM Peak Hour
13. 33rd St / 5th Ave	AWSC	3 / A	2 / A	AWSC	4 / A	3 / A
14. 34th St / Y St	AWSC	11 / B	19 / C	AWSC	10 / A	75 / F
15. 37th St / 2nd Ave	AWSC	7 / A	7 / A	AWSC	8 / A	7 / A
16. Broadway / 34th Street	Signal	17 / B	25 / C	Signal	55 / D	85 / F

Notes:

1. "LOS" represents level of service, calculated based on methodologies contained in the *Highway Capacity Manual, 6th Edition* (Transportation Research Board, 2016).
2. Delay is reported in seconds per vehicle for the overall intersection for signalized intersections. For side-street stop control intersections, overall delay and LOS is reported with the delay and LOS of the worst movement, the latter of which is shown in parentheses.
3. "SSSC" represents side-street stop control. "AWSC" represents all way stop control.
4. Shaded cells indicate intersection is experiencing LOS F conditions.

Source: Fehr & Peers, 2019.

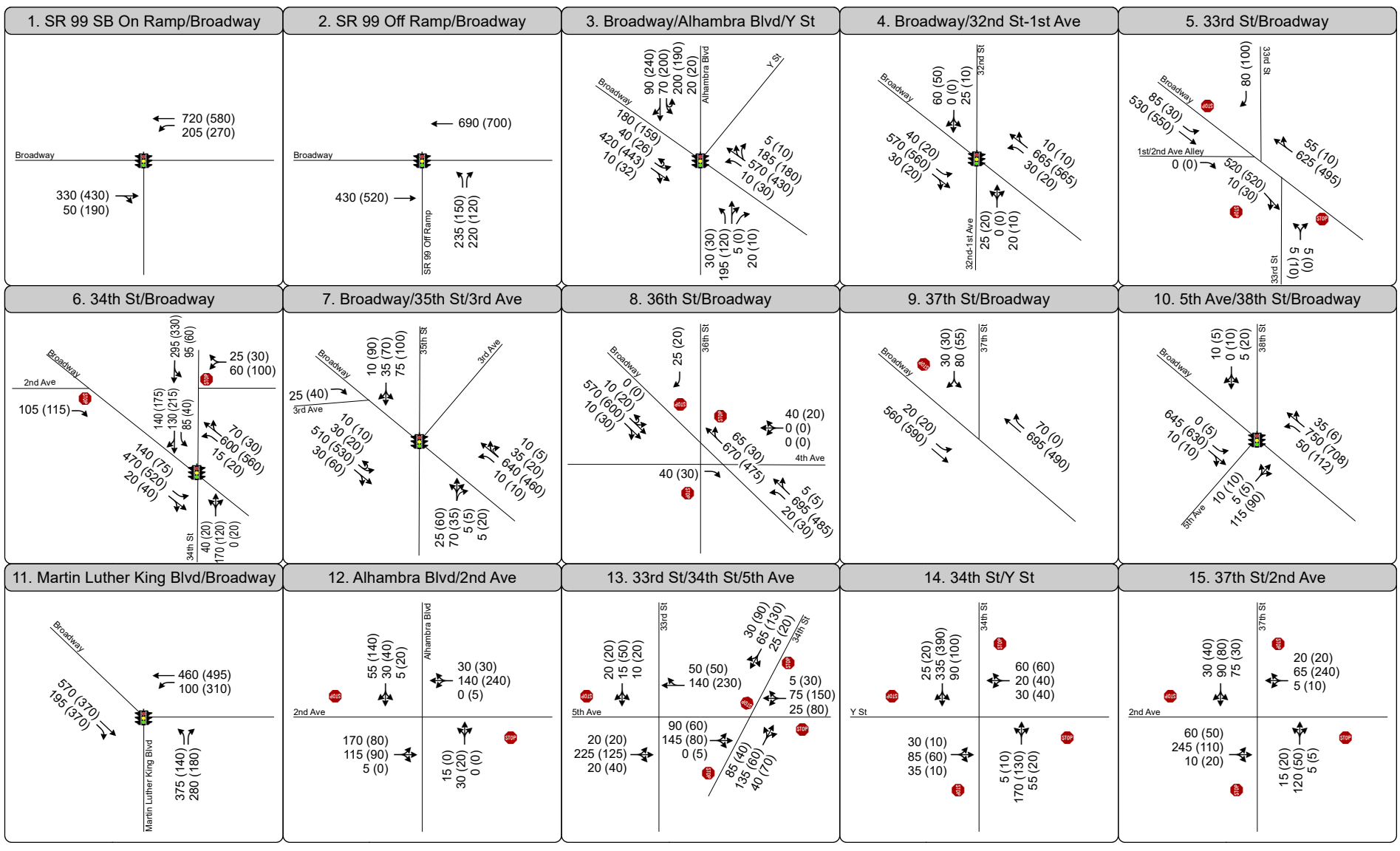
Under the Preferred Concept, delay generally increases throughout the corridor, due to reduced capacity and traffic calming features, including the new traffic signal at 32nd Street/Broadway and 38th Street/Broadway intersections. Intersection delay increases but remains within the ranges acceptance per the LOS policies outlined in the City's General Plan. 34th Street continues to see strong demand during both peak hours and intersections are impacted by signal timing adjustments to maintain traffic flow along Broadway. Specifically, the intersections at 34th Street / Broadway and 34th Street / Y Street will experience LOS F conditions in the PM peak hour, associated with the high southbound demand and queueing.

Table 2: Travel Time – Preferred Concept Conditions

Segment	Existing Conditions		Preferred Concept	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
EB Broadway – SR 99 On-Ramp to Martin Luther King Boulevard	164	191	240	265
WB Broadway – Martin Luther Boulevard to SR 99 On-Ramp	168	181	375	451

In terms of travel time along Broadway through Oak Park, drives currently take between 2.5 to 3 minutes to travel between SR 99 On-Ramp and Martin Luther King Boulevard. Under Preferred Concept conditions, the estimated travel time headed eastbound along Broadway between SR 99 On-Ramp and Martin Luther King Boulevard increases to approximately 4 to 4.5 minutes. In the westbound direction, the travel time

approximately doubles taking between 6 and 7.5 minutes to travel the corridor. This largely due to the signalization of several side street stop-controlled intersections and other traffic calming features of the Preferred Concept.



Turn Lane

AM (PM) Peak Hour Traffic Volume

Traffic Signal

Stop Sign

Figure 11

Peak Hour Traffic Volumes and Lane Configurations - Preferred Alternative Conditions

Appendix A:
Technical Calculations

SimTraffic Post-Processor **Central Broadway**
Average Results from 10 Runs **Existing Conditions**
Volume and Delay by Movement **AM Peak Hour**

Intersection 1 **SR 99 On Ramp/Broadway** **Uncontrolled**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	Total Delay (sec/veh) LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	408	403	98.7%	1.0	0.1	A
	Right Turn	160	152	94.9%	1.3	0.2	A
	Subtotal	568	555	97.6%	1.1	0.1	A
WB	Left Turn	204	185	90.9%	5.1	0.4	A
	Through	905	898	99.3%	1.6	0.1	A
	Right Turn						
	Subtotal	1,109	1,084	97.7%	2.2	0.1	A
Total		1,677	1,638	97.7%	1.8	0.1	A

Intersection 2 **SR 99 Off Ramp /Broadway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	Total Delay (sec/veh) LOS
NB	Left Turn	294	291	99.0%	13.6	1.3	B
	Through						
	Right Turn	224	216	96.6%	6.0	0.7	A
	Subtotal	518	507	97.9%	10.4	0.9	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	408	404	99.0%	3.5	0.6	A
	Right Turn						
	Subtotal	408	404	99.0%	3.5	0.6	A
WB	Left Turn						
	Through	815	791	97.1%	9.5	0.7	A
	Right Turn						
	Subtotal	815	791	97.1%	9.5	0.7	A
Total		1,741	1,703	97.8%	8.4	0.4	A

Intersection 3 **Alhambra Blvd/Broadway-Y St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	27	27	98.5%	18.4	5.5	B
	Through	209	199	95.1%	20.6	1.9	C
	Right Turn	20	21	105.5%	4.8	5.0	A
	Subtotal	256	247	96.3%	19.2	1.7	B
SB	Left Turn	127	130	102.6%	30.7	6.2	C
	Through	62	57	91.5%	27.4	6.7	C
	Right Turn	110	113	102.3%	1.7	0.4	A
	Subtotal	299	300	100.2%	19.0	3.3	B
EB	Left Turn	232	227	98.0%	25.7	4.1	C
	Through	392	387	98.8%	6.8	1.1	A
	Right Turn	8	8	103.8%	2.7	2.3	A
	Subtotal	632	623	98.6%	13.7	1.8	B
WB	Left Turn	9	7	78.9%	18.1	15.6	B
	Through	678	661	97.4%	18.7	2.1	B
	Right Turn	201	202	100.6%	19.4	2.8	B
	Subtotal	888	870	98.0%	19.0	2.2	B
Total		2,075	2,039	98.3%	17.3	0.9	B

Intersection 4 **1st Ave-32nd St/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	3	1	46.7%	10.0	17.6	A
	Through						
	Right Turn	18	15	81.1%	0.7	0.2	A
	Subtotal	21	16	76.2%	2.7	3.9	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	495	497	100.4%	0.2	0.1	A
	Right Turn	8	7	90.0%	0.1	0.3	A
	Subtotal	503	504	100.2%	0.2	0.1	A
WB	Left Turn	28	26	91.1%	6.7	3.2	A
	Through	813	792	97.4%	0.7	0.1	A
	Right Turn						
	Subtotal	841	817	97.2%	0.8	0.2	A
Total		1,365	1,337	98.0%	0.6	0.1	A

Intersection 5 **N. 33rd St/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	1	1	50.0%	0.0	0.0	A
	Subtotal	1	1	50.0%	0.0	0.0	A
SB	Left Turn	16	17	104.4%	18.5	5.5	C
	Through						
	Right Turn	80	84	104.9%	6.1	1.3	A
	Subtotal	96	101	104.8%	8.3	1.5	A
EB	Left Turn	70	65	92.1%	7.3	2.9	A
	Through	445	446	100.3%	0.7	0.2	A
	Right Turn						
	Subtotal	515	511	99.2%	1.5	0.5	A
WB	Left Turn						
	Through	761	730	95.9%	0.4	0.1	A
	Right Turn	37	37	98.9%	0.3	0.3	A
	Subtotal	798	767	96.1%	0.4	0.1	A
Total		1,410	1,379	97.8%	1.4	0.3	A

Intersection 105 **S. 33rd St/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	80.0%	16.4	15.4	C
	Through						
	Right Turn	4	4	97.5%	2.8	3.5	A
	Subtotal	9	8	87.8%	14.0	12.3	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	455	455	99.9%	0.2	0.1	A
	Right Turn	7	8	118.6%	0.0	0.0	A
	Subtotal	462	463	100.2%	0.2	0.1	A
WB	Left Turn	1	1	100.0%	0.7	1.5	A
	Through	793	764	96.4%	0.6	0.1	A
	Right Turn						
	Subtotal	794	765	96.4%	0.6	0.1	A
Total		1,265	1,236	97.7%	0.5	0.1	A

SimTraffic Post-Processor **Central Broadway**
Average Results from 10 Runs **Existing Conditions**
Volume and Delay by Movement **AM Peak Hour**

Intersection 206 **2nd Ave/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	40	38	95.0%	27.5	9.6	D
	Right Turn	58	55	95.5%	14.7	10.3	B
	Subtotal	98	93	95.3%	20.6	9.4	C
SB	Left Turn						
	Through	26	26	98.1%	27.1	12.6	D
	Right Turn	111	107	96.6%	7.2	1.0	A
	Subtotal	137	133	96.9%	11.2	3.5	B
EB	Left Turn	77	75	97.0%	12.4	4.0	B
	Through	382	382	99.9%	0.7	0.1	A
	Right Turn						
	Subtotal	459	457	99.5%	2.5	0.8	A
WB	Left Turn	66	63	95.5%	3.9	1.2	A
	Through	683	658	96.3%	1.1	0.2	A
	Right Turn						
	Subtotal	749	721	96.2%	1.4	0.3	A
Total		1,443	1,404	97.3%	3.9	1.1	A

Intersection 6 **34th St/Broadway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	49	47	94.9%	25.3	3.1	C
	Through	184	185	100.8%	28.0	6.8	C
	Right Turn	5	7	144.0%	10.5	12.7	B
	Subtotal	238	239	100.5%	27.2	5.5	C
SB	Left Turn	125	130	104.2%	45.3	12.1	D
	Through	124	123	99.0%	35.1	9.6	D
	Right Turn	2	1	65.0%	18.6	9.0	B
	Subtotal	251	254	101.3%	40.2	10.6	D
EB	Left Turn	34	32	95.0%	21.0	12.5	C
	Through	385	383	99.4%	6.9	1.6	A
	Right Turn	21	22	102.4%	3.1	2.8	A
	Subtotal	440	436	99.2%	7.8	2.1	A
WB	Left Turn	4	4	92.5%	7.3	8.6	A
	Through	698	673	96.5%	11.1	1.3	B
	Right Turn	67	72	107.2%	8.5	4.1	A
	Subtotal	769	749	97.4%	10.9	1.3	B
Total		1,698	1,679	98.9%	17.0	2.5	B

Intersection 7 **35th St/Broadway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	18	16	90.0%	14.9	7.4	B
	Through	34	31	91.2%	16.1	6.7	B
	Right Turn	8	8	95.0%	11.9	9.4	B
	Subtotal	60	55	91.3%	15.6	3.7	B
SB	Left Turn	39	37	93.8%	18.9	5.4	B
	Through	26	24	91.2%	16.5	2.5	B
	Right Turn	6	6	93.3%	2.4	3.5	A
	Subtotal	71	66	92.8%	16.7	2.8	B
EB	Left Turn	16	17	103.8%	18.6	14.0	B
	Through	487	488	100.2%	6.3	1.0	A
	Right Turn	26	28	106.2%	3.0	1.5	A
	Subtotal	529	532	100.6%	6.5	1.0	A
WB	Left Turn	10	9	90.0%	21.2	18.0	C
	Through	745	731	98.1%	11.1	1.3	B
	Right Turn	28	29	104.6%	11.2	2.7	B
	Subtotal	783	769	98.3%	11.2	1.2	B
Total		1,443	1,422	98.6%	9.9	0.7	A

Intersection 8 **36th St/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	3	3	86.7%	18.6	13.5	C
	Through	4	4	107.5%	14.1	15.8	B
	Right Turn						
	Subtotal	7	7	98.6%	23.7	9.9	C
SB	Left Turn	12	12	97.5%	25.8	13.6	D
	Through	4	5	122.5%	20.0	20.0	C
	Right Turn	21	21	99.0%	6.2	3.2	A
	Subtotal	37	37	101.1%	16.1	9.2	C
EB	Left Turn	9	9	98.9%	5.9	6.1	A
	Through	515	509	98.8%	1.2	0.2	A
	Right Turn	5	8	150.0%	1.3	1.1	A
	Subtotal	529	525	99.3%	1.4	0.4	A
WB	Left Turn						
	Through	759	746	98.3%	0.4	0.1	A
	Right Turn	64	61	95.8%	0.3	0.1	A
	Subtotal	823	808	98.1%	0.4	0.1	A
Total		1,396	1,377	98.6%	1.3	0.3	A

Intersection 108 **4th Ave/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	14	17	120.0%	45.7	20.7	E
	Right Turn	21	23	107.6%	9.6	6.1	A
	Subtotal	35	39	112.6%	24.8	10.3	C
SB	Left Turn	4	4	105.0%	10.7	17.6	B
	Through	4	6	152.5%	21.1	20.4	C
	Right Turn	46	49	107.4%	13.5	4.2	B
	Subtotal	54	60	110.6%	16.7	5.3	C
EB	Left Turn	11	9	85.5%	15.1	12.6	C
	Through	516	511	99.0%	0.9	0.7	A
	Right Turn						
	Subtotal	527	520	98.7%	1.2	1.0	A
WB	Left Turn	14	14	102.1%	4.3	2.9	A
	Through	777	759	97.7%	0.5	0.1	A
	Right Turn	1	1	110.0%	0.0	0.0	A
	Subtotal	792	775	97.8%	0.6	0.2	A
Total		1,408	1,394	99.0%	2.1	0.7	A

Intersection 9 **37th St/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	62	61	99.0%	30.9	19.9	D
	Through						
	Right Turn	6	7	115.0%	12.5	15.8	B
	Subtotal	68	68	100.4%	28.1	17.2	D
EB	Left Turn	5	4	80.0%	6.4	11.0	A
	Through	536	536	100.0%	0.6	0.2	A
	Right Turn						
	Subtotal	541	540	99.8%	0.6	0.3	A
WB	Left Turn						
	Through	786	767	97.5%	0.2	0.1	A
	Right Turn	73	71	97.4%	0.1	0.2	A
	Subtotal	859	838	97.5%	0.2	0.1	A
Total		1,468	1,446	98.5%	1.7	0.7	A

Intersection 10 **38th St/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	4	105.0%	9.9	10.3	A
	Through	2	1	55.0%	17.8	23.9	C
	Right Turn	91	95	104.5%	8.3	2.2	A
	Subtotal	97	100	103.5%	9.4	3.2	A
SB	Left Turn	4	4	107.5%	16.0	14.4	C
	Through						
	Right Turn	9	8	90.0%	2.5	0.9	A
	Subtotal	13	12	95.4%	9.2	6.8	A
EB	Left Turn	18	19	106.7%	9.2	7.2	A
	Through	585	586	100.2%	1.0	0.3	A
	Right Turn	5	6	114.0%	1.0	1.6	A
	Subtotal	608	611	100.5%	1.2	0.3	A
WB	Left Turn	62	60	96.8%	6.4	2.4	A
	Through	846	825	97.5%	0.5	0.2	A
	Right Turn	32	28	88.4%	0.4	0.4	A
	Subtotal	940	913	97.1%	0.9	0.2	A
Total		1,658	1,637	98.7%	1.7	0.3	A

Intersection 11 **Martin Luther King Blvd/Broadway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	397	385	97.0%	23.9	2.4	C
	Through						
	Right Turn	276	275	99.7%	27.3	3.6	C
	Subtotal	673	660	98.1%	25.3	2.6	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	496	484	97.5%	15.3	1.8	B
	Right Turn	196	209	106.5%	10.1	2.2	B
	Subtotal	692	692	100.0%	13.7	1.4	B
WB	Left Turn	93	93	100.3%	34.2	5.0	C
	Through	503	488	97.0%	8.9	1.0	A
	Right Turn						
	Subtotal	596	581	97.5%	12.8	0.8	B
Total		1,961	1,934	98.6%	17.3	1.2	B

Intersection 12 **Alhambra Blvd/2nd Ave** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	14	12	85.0%	4.6	4.3	A
	Through	25	23	92.8%	8.0	2.3	A
	Right Turn						
	Subtotal	39	35	90.0%	8.0	2.2	A
SB	Left Turn	4	4	90.0%	2.3	3.8	A
	Through	18	18	97.2%	11.0	4.8	B
	Right Turn	47	43	90.6%	4.0	1.4	A
	Subtotal	69	64	92.3%	6.2	2.0	A
EB	Left Turn	184	176	95.8%	2.7	0.4	A
	Through	116	123	105.9%	1.5	0.3	A
	Right Turn	3	4	136.7%	0.5	0.8	A
	Subtotal	303	303	100.1%	2.2	0.4	A
WB	Left Turn						
	Through	116	112	96.9%	0.3	0.2	A
	Right Turn	26	29	111.5%	0.1	0.1	A
	Subtotal	142	141	99.6%	0.3	0.1	A
Total		553	543	98.3%	2.5	0.3	A

Intersection 13 **33rd St/5th Ave** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	6	5	83.3%	17.6	13.3	C
	Through	12	10	84.2%	4.5	2.7	A
	Right Turn	7	9	127.1%	3.9	2.2	A
	Subtotal	25	24	96.0%	8.6	3.9	A
EB	Left Turn	16	15	95.6%	3.7	2.9	A
	Through	209	205	98.0%	3.6	1.2	A
	Right Turn	19	21	107.9%	1.6	1.9	A
	Subtotal	244	241	98.6%	3.4	1.2	A
WB	Left Turn						
	Through	136	140	102.6%	1.1	0.2	A
	Right Turn	48	46	96.7%	1.0	0.1	A
	Subtotal	184	186	101.1%	1.1	0.1	A
Total		453	451	99.5%	2.7	0.8	A

Intersection 113 **34th St/5th Ave** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	85	81	95.5%	6.5	1.4	A
	Through	140	143	102.3%	6.7	0.8	A
	Right Turn	36	37	103.1%	3.8	1.1	A
	Subtotal	261	262	100.2%	6.4	0.9	A
SB	Left Turn	24	21	88.3%	6.2	1.9	A
	Through	59	57	97.1%	6.9	1.7	A
	Right Turn	29	30	103.1%	5.3	2.2	A
	Subtotal	112	108	96.8%	6.5	1.4	A
EB	Left Turn	84	79	94.2%	5.1	0.9	A
	Through	131	132	100.8%	5.4	0.3	A
	Right Turn						
	Subtotal	215	211	98.2%	5.3	0.5	A
WB	Left Turn	24	25	102.1%	5.8	1.3	A
	Through	71	74	104.8%	6.9	0.8	A
	Right Turn	5	6	118.0%	1.9	2.0	A
	Subtotal	100	105	104.8%	6.5	0.8	A
Total		688	686	99.7%	6.1	0.6	A

Intersection 14 **34th St/Y St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	4	3	75.0%	7.5	7.0	A
	Through	180	185	102.8%	10.2	1.7	B
	Right Turn	53	50	94.2%	6.3	2.0	A
	Subtotal	237	238	100.4%	9.4	1.8	A
SB	Left Turn	86	86	100.1%	13.7	3.9	B
	Through	355	354	99.7%	14.4	3.1	B
	Right Turn	24	25	103.3%	10.6	4.7	B
	Subtotal	465	465	100.0%	14.1	3.3	B
EB	Left Turn	27	26	97.0%	8.6	2.1	A
	Through	80	81	101.0%	9.4	1.4	A
	Right Turn	20	23	112.5%	6.5	2.6	A
	Subtotal	127	130	102.0%	8.8	1.4	A
WB	Left Turn	30	30	99.0%	7.8	1.6	A
	Through	23	24	102.2%	7.6	1.5	A
	Right Turn	56	61	109.5%	6.1	2.0	A
	Subtotal	109	115	105.0%	6.9	1.3	A
Total		938	947	100.9%	11.4	1.8	B

SimTraffic Post-Processor **Central Broadway**
Average Results from 10 Runs **Existing Conditions**
Volume and Delay by Movement **AM Peak Hour**

Intersection 15 **37th St /2nd Ave** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	11	10	92.7%	6.8	4.1	A
	Through	121	120	99.0%	6.8	0.9	A
	Right Turn	5	6	126.0%	2.7	1.3	A
	Subtotal	137	136	99.5%	6.7	0.9	A
SB	Left Turn	75	73	96.9%	6.7	1.0	A
	Through	87	86	98.4%	6.4	0.5	A
	Right Turn	28	30	105.4%	4.5	0.5	A
	Subtotal	190	188	98.8%	6.1	0.4	A
EB	Left Turn	54	51	94.3%	7.0	1.4	A
	Through	218	211	96.6%	7.6	1.0	A
	Right Turn	6	7	121.7%	3.7	1.1	A
	Subtotal	278	269	96.7%	7.4	1.0	A
WB	Left Turn	2	1	70.0%	2.4	4.7	A
	Through	62	59	95.2%	5.9	1.1	A
	Right Turn	20	21	106.5%	3.7	0.5	A
	Subtotal	84	82	97.3%	5.3	0.9	A
Total		689	675	97.9%	6.7	0.6	A

SimTraffic Post-Processor **Central Broadway**
Average Results from 10 Runs **Existing Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 1 **SR 99 On Ramp/Broadway** **Uncontrolled**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	530	524	98.9%	1.5	0.2	A
	Right Turn	461	470	102.0%	2.6	0.3	A
	Subtotal	991	994	100.3%	2.0	0.2	A
WB	Left Turn	260	253	97.2%	10.1	5.1	B
	Through	945	959	101.4%	17.9	13.6	C
	Right Turn						
	Subtotal	1,205	1,211	100.5%	16.2	11.5	C
Total		2,196	2,206	100.4%	9.5	6.0	A

Intersection 2 **SR 99 Off Ramp/Broadway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	187	188	100.3%	13.9	1.7	B
	Through						
	Right Turn	130	128	98.3%	5.4	0.6	A
	Subtotal	317	315	99.5%	10.1	1.3	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	530	526	99.3%	3.0	0.4	A
	Right Turn						
	Subtotal	530	526	99.3%	3.0	0.4	A
WB	Left Turn						
	Through	1,018	1,023	100.4%	12.5	10.0	B
	Right Turn						
	Subtotal	1,018	1,023	100.4%	12.5	10.0	B
Total		1,865	1,864	99.9%	9.4	5.6	A

Intersection 3 **Alhambra Blvd/Broadway-Y St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	23	22	96.5%	22.4	8.4	C
	Through	85	86	101.6%	19.3	3.3	B
	Right Turn	8	7	86.3%	1.0	0.1	A
	Subtotal	116	116	99.6%	18.9	3.0	B
SB	Left Turn	313	322	102.7%	40.3	12.2	D
	Through	209	209	100.1%	30.0	4.7	C
	Right Turn	239	249	104.3%	5.9	1.7	A
	Subtotal	761	780	102.5%	26.9	6.0	C
EB	Left Turn	185	178	96.1%	26.3	6.0	C
	Through	443	445	100.5%	10.0	1.4	A
	Right Turn	32	33	102.8%	6.4	1.5	A
	Subtotal	660	656	99.4%	14.2	2.7	B
WB	Left Turn	28	28	101.1%	42.5	9.3	D
	Through	756	748	98.9%	19.0	5.0	B
	Right Turn	184	182	98.8%	18.9	5.5	B
	Subtotal	968	958	99.0%	19.7	4.7	B
Total		2,505	2,509	100.2%	20.6	3.0	C

Intersection 4 **1st Ave-32nd St/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	5	92.0%	6.0	7.0	A
	Through						
	Right Turn	15	16	109.3%	0.8	0.2	A
	Subtotal	20	21	105.0%	2.8	2.9	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	739	742	100.5%	0.2	0.1	A
	Right Turn	14	14	101.4%	0.0	0.0	A
	Subtotal	753	757	100.5%	0.2	0.1	A
WB	Left Turn	24	24	98.8%	6.4	2.4	A
	Through	918	918	100.0%	0.9	1.3	A
	Right Turn						
	Subtotal	942	942	100.0%	1.1	1.3	A
Total		1,715	1,719	100.3%	0.7	0.7	A

Intersection 5 **N. 33rd St/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	11	10	90.0%	16.2	16.0	C
	Through						
	Right Turn	45	44	97.3%	7.7	2.6	A
	Subtotal	56	54	95.9%	10.0	4.0	A
EB	Left Turn	25	26	105.2%	8.5	3.4	A
	Through	730	731	100.2%	0.8	0.6	A
	Right Turn						
	Subtotal	755	758	100.3%	1.1	0.7	A
WB	Left Turn						
	Through	896	897	100.1%	0.2	0.1	A
	Right Turn	11	13	115.5%	0.2	0.3	A
	Subtotal	907	910	100.3%	0.2	0.1	A
Total		1,718	1,721	100.2%	0.9	0.5	A

Intersection 105 **S. 33rd St/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	14	14	96.4%	28.6	26.5	D
	Through						
	Right Turn	9	8	88.9%	12.9	12.7	B
	Subtotal	23	22	93.5%	20.9	14.9	C
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	714	712	99.7%	0.3	0.1	A
	Right Turn	27	27	100.7%	0.1	0.1	A
	Subtotal	741	739	99.7%	0.3	0.1	A
WB	Left Turn	16	16	100.6%	9.5	4.4	A
	Through	893	897	100.4%	0.9	0.1	A
	Right Turn						
	Subtotal	909	913	100.4%	1.1	0.2	A
Total		1,673	1,673	100.0%	1.0	0.2	A

Intersection 206 **2nd Ave/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	1	1	50.0%	4.2	13.3	A
	Through	15	15	98.0%	113.3	93.3	F
	Right Turn	54	54	99.8%	57.1	43.4	F
	Subtotal	70	69	98.7%	69.8	51.9	F
SB	Left Turn	3	4	120.0%	73.8	65.0	F
	Through	67	60	89.3%	94.9	42.7	F
	Right Turn	205	207	100.8%	12.5	1.6	B
	Subtotal	275	270	98.2%	31.2	13.3	D
EB	Left Turn	63	58	91.7%	18.8	14.0	C
	Through	656	656	100.0%	1.9	0.4	A
	Right Turn	7	9	121.4%	0.6	0.8	A
	Subtotal	726	722	99.5%	3.4	1.2	A
WB	Left Turn	57	60	105.6%	10.5	3.5	B
	Through	702	706	100.5%	1.1	0.3	A
	Right Turn						
	Subtotal	759	766	100.9%	1.8	0.4	A
Total		1,830	1,827	99.9%	9.7	4.0	A

Intersection 6 **34th St/Broadway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	52	50	95.4%	26.8	10.8	C
	Through	89	86	96.1%	25.3	12.6	C
	Right Turn	19	21	107.9%	15.2	11.4	B
	Subtotal	160	156	97.3%	24.3	11.4	C
SB	Left Turn	187	182	97.3%	90.1	53.4	F
	Through	186	187	100.4%	82.2	52.2	F
	Right Turn	3	3	113.3%	77.8	49.2	E
	Subtotal	376	372	98.9%	85.9	52.5	F
EB	Left Turn	3	3	83.3%	7.1	14.9	A
	Through	647	654	101.1%	12.0	1.0	B
	Right Turn	64	65	102.0%	8.5	3.4	A
	Subtotal	714	722	101.1%	11.8	1.1	B
WB	Left Turn	14	15	107.1%	15.1	9.0	B
	Through	704	713	101.2%	7.1	3.2	A
	Right Turn	26	23	89.6%	4.1	3.4	A
	Subtotal	744	751	100.9%	7.3	3.5	A
Total		1,994	2,000	100.3%	24.7	9.8	C

SimTraffic Post-Processor **Central Broadway**
Average Results from 10 Runs **Existing Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 7 **35th St/Broadway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	34	31	92.4%	18.3	6.9	B
	Through	18	20	112.2%	19.1	6.3	B
	Right Turn	13	14	104.6%	10.3	6.6	B
	Subtotal	65	65	100.3%	17.4	5.4	B
SB	Left Turn	23	21	92.6%	16.0	7.4	B
	Through	51	50	97.5%	14.5	2.6	B
	Right Turn	32	33	102.5%	7.1	2.4	A
	Subtotal	106	104	97.9%	13.0	1.1	B
EB	Left Turn	21	21	99.5%	30.3	6.1	C
	Through	814	815	100.1%	20.1	1.1	C
	Right Turn	47	50	105.3%	13.8	2.9	B
	Subtotal	882	885	100.4%	20.0	1.1	B
WB	Left Turn	7	7	98.6%	23.6	17.7	C
	Through	673	672	99.9%	10.2	1.1	B
	Right Turn	20	21	106.0%	10.2	4.9	B
	Subtotal	700	701	100.1%	10.5	1.3	B
Total		1,753	1,755	100.1%	15.7	0.8	B

Intersection 8 **36th St/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	8	8	102.5%	19.2	18.5	C
	Through	2	2	80.0%	9.4	14.4	A
	Right Turn						
	Subtotal	10	10	98.0%	19.0	14.0	C
SB	Left Turn	15	14	92.0%	52.3	50.1	F
	Through	8	7	88.8%	31.1	12.2	D
	Right Turn	19	18	96.3%	13.2	17.0	B
	Subtotal	42	39	93.3%	28.3	24.8	D
EB	Left Turn	13	15	112.3%	6.3	1.9	A
	Through	825	825	100.0%	2.6	0.4	A
	Right Turn	10	11	106.0%	1.7	2.0	A
	Subtotal	848	850	100.2%	2.7	0.4	A
WB	Left Turn						
	Through	671	675	100.6%	0.4	0.1	A
	Right Turn	23	24	104.3%	0.2	0.3	A
	Subtotal	694	699	100.7%	0.4	0.1	A
Total		1,594	1,598	100.2%	2.6	1.0	A

SimTraffic Post-Processor **Central Broadway**
Average Results from 10 Runs **Existing Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 108 **4th Ave/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	2	14	700.0%	40.0	25.3	E
	Right Turn	22	22	98.2%	11.6	9.1	B
	Subtotal	24	36	148.3%	24.3	15.5	C
SB	Left Turn	2	1	65.0%	6.5	18.0	A
	Through	6	6	106.7%	39.0	32.7	E
	Right Turn	21	21	98.6%	10.9	5.7	B
	Subtotal	29	28	97.9%	20.0	10.0	C
EB	Left Turn	14	15	107.1%	9.3	4.7	A
	Through	826	825	99.9%	0.6	0.3	A
	Right Turn						
	Subtotal	840	840	100.0%	0.8	0.4	A
WB	Left Turn	22	21	95.0%	16.0	4.5	C
	Through	673	679	100.9%	0.8	0.3	A
	Right Turn	1	1	80.0%	0.1	0.3	A
	Subtotal	696	701	100.7%	1.3	0.5	A
Total		1,589	1,605	101.0%	1.8	0.4	A

Intersection 9 **37th St/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	47	44	93.6%	29.4	15.6	D
	Through						
	Right Turn	14	18	128.6%	11.0	6.8	B
	Subtotal	61	62	101.6%	24.1	10.8	C
EB	Left Turn	10	11	108.0%	4.6	2.0	A
	Through	840	839	99.9%	0.9	0.2	A
	Right Turn						
	Subtotal	850	850	100.0%	0.9	0.2	A
WB	Left Turn						
	Through	682	684	100.3%	0.1	0.0	A
	Right Turn	38	40	104.7%	0.1	0.1	A
	Subtotal	720	724	100.5%	0.1	0.0	A
Total		1,631	1,636	100.3%	1.5	0.5	A

Intersection 10 **38th St/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	9	9	103.3%	45.4	34.7	E
	Through	3	3	100.0%	31.5	39.1	D
	Right Turn	73	74	101.4%	21.0	11.1	C
	Subtotal	85	86	101.5%	25.8	16.8	D
SB	Left Turn						
	Through						
	Right Turn	3	3	113.3%	3.0	4.4	A
	Subtotal	3	3	113.3%	3.0	4.4	A
EB	Left Turn	3	3	90.0%	3.7	3.4	A
	Through	874	865	98.9%	1.2	0.3	A
	Right Turn	10	11	105.0%	0.9	0.9	A
	Subtotal	887	878	99.0%	1.3	0.3	A
WB	Left Turn	115	118	102.9%	13.4	6.5	B
	Through	708	712	100.6%	0.5	0.6	A
	Right Turn	6	7	116.7%	0.0	0.0	A
	Subtotal	829	837	101.0%	2.4	1.5	A
Total		1,804	1,805	100.0%	3.0	1.1	A

Intersection 11 **Martin Luther King Blvd/Broadway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	191	190	99.5%	38.2	6.4	D
	Through						
	Right Turn	155	157	101.5%	40.1	7.0	D
	Subtotal	346	348	100.4%	39.3	5.5	D
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	564	553	98.1%	17.2	2.8	B
	Right Turn	386	383	99.2%	18.4	2.7	B
	Subtotal	950	936	98.5%	17.6	2.2	B
WB	Left Turn	301	295	98.1%	53.4	10.9	D
	Through	638	646	101.3%	8.8	1.6	A
	Right Turn						
	Subtotal	939	941	100.3%	23.3	5.6	C
Total		2,235	2,225	99.5%	23.3	3.0	C

Intersection 12 **Alhambra Blvd/2nd Ave** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	16	14	88.8%	6.6	2.2	A
	Through	19	17	89.5%	6.5	1.9	A
	Right Turn						
	Subtotal	35	31	89.1%	6.5	1.4	A
SB	Left Turn	19	20	103.7%	9.9	3.0	A
	Through	50	52	103.8%	9.4	3.0	A
	Right Turn	151	148	97.7%	6.4	1.2	A
	Subtotal	220	219	99.6%	7.3	1.2	A
EB	Left Turn	58	59	101.2%	2.4	1.5	A
	Through	69	74	107.1%	0.6	0.4	A
	Right Turn	4	4	107.5%	0.1	0.2	A
	Subtotal	131	137	104.5%	1.3	0.7	A
WB	Left Turn	1	1	50.0%	0.2	0.4	A
	Through	147	145	98.6%	0.4	0.1	A
	Right Turn	16	17	103.1%	0.1	0.2	A
	Subtotal	164	162	98.8%	0.4	0.1	A
Total		550	549	99.9%	3.8	0.6	A

Intersection 13 **33rd St/5th Ave** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	14	15	104.3%	6.4	2.8	A
	Through	47	45	95.3%	7.0	0.9	A
	Right Turn	15	14	92.0%	3.9	2.0	A
	Subtotal	76	73	96.3%	6.3	1.0	A
EB	Left Turn	14	15	110.0%	2.7	1.5	A
	Through	80	74	92.1%	1.5	0.5	A
	Right Turn	35	39	110.9%	0.6	0.5	A
	Subtotal	129	128	99.1%	1.3	0.4	A
WB	Left Turn	1	0	20.0%	#DIV/0!	#DIV/0!	#DIV/0!
	Through	196	196	100.2%	1.4	0.1	A
	Right Turn	36	39	108.3%	0.8	0.2	A
	Subtotal	233	236	101.1%	1.3	0.1	A
Total		438	437	99.7%	2.1	0.2	A

Intersection 113 **34th St/5th Ave** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	36	35	96.4%	6.0	0.8	A
	Through	74	73	98.2%	5.6	0.6	A
	Right Turn	64	62	97.0%	3.0	0.4	A
	Subtotal	174	170	97.4%	4.7	0.7	A
SB	Left Turn	17	19	113.5%	5.8	1.1	A
	Through	142	141	99.6%	7.1	0.7	A
	Right Turn	69	72	104.5%	5.1	0.9	A
	Subtotal	228	233	102.1%	6.3	0.6	A
EB	Left Turn	36	34	93.6%	4.7	0.5	A
	Through	57	54	94.4%	4.8	0.4	A
	Right Turn	2	2	85.0%	0.6	1.3	A
	Subtotal	95	89	93.9%	4.7	0.4	A
WB	Left Turn	79	84	105.7%	6.7	1.0	A
	Through	128	129	100.5%	7.8	1.1	A
	Right Turn	21	22	104.3%	5.7	2.5	A
	Subtotal	228	234	102.6%	7.2	1.0	A
Total		725	726	100.1%	6.1	0.5	A

Intersection 14 **34th St/Y St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	7	6	80.0%	4.8	3.0	A
	Through	124	120	96.9%	7.3	1.1	A
	Right Turn	16	17	103.1%	3.7	1.5	A
	Subtotal	147	142	96.8%	6.9	0.9	A
SB	Left Turn	82	78	94.6%	24.2	15.0	C
	Through	476	478	100.5%	25.6	17.4	D
	Right Turn	17	19	110.6%	25.1	22.8	D
	Subtotal	575	575	99.9%	25.4	17.1	D
EB	Left Turn	11	11	97.3%	5.1	1.9	A
	Through	39	38	98.2%	7.4	1.1	A
	Right Turn	9	8	87.8%	2.6	2.0	A
	Subtotal	59	57	96.4%	6.6	1.0	A
WB	Left Turn	30	30	101.3%	7.1	1.5	A
	Through	42	41	96.9%	8.1	1.0	A
	Right Turn	51	49	95.5%	4.2	1.0	A
	Subtotal	123	120	97.4%	6.1	1.0	A
Total		904	894	98.9%	19.0	11.2	C

SimTraffic Post-Processor **Central Broadway**
Average Results from 10 Runs **Existing Conditions**
Volume and Delay by Movement **PM Peak Hour**

Intersection 15 **37th St /Broadway** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	13	11	84.6%	5.1	2.1	A
	Through	66	73	109.8%	5.8	0.6	A
	Right Turn	4	5	122.5%	2.5	1.4	A
	Subtotal	83	88	106.5%	5.6	0.6	A
SB	Left Turn	30	33	109.3%	6.6	0.9	A
	Through	79	80	101.1%	6.4	1.0	A
	Right Turn	43	46	107.9%	4.5	0.7	A
	Subtotal	152	159	104.7%	5.8	0.5	A
EB	Left Turn	29	27	91.7%	5.7	0.9	A
	Through	83	83	99.6%	6.4	0.8	A
	Right Turn	12	10	84.2%	3.3	2.1	A
	Subtotal	124	119	96.3%	6.0	0.7	A
WB	Left Turn	6	4	73.3%	5.2	4.5	A
	Through	221	223	100.7%	7.9	0.9	A
	Right Turn	19	19	99.5%	5.1	2.4	A
	Subtotal	246	246	100.0%	7.7	1.0	A
Total		605	613	101.3%	6.6	0.6	A

Arterial Level of Service: EB Broadway

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	26	8.2	29.5	0.2	18
SB 99 SB On Ramp	1	1.0	6.4	0.0	21
SR 99 Off Ramp	2	3.6	15.0	0.1	19
Alhambra Blvd	3	7.0	18.2	0.1	16
	19	1.2	7.1	0.0	22
32nd St	104	0.4	5.0	0.0	28
	4	0.1	2.8	0.0	38
	5	0.6	9.5	0.1	27
33rd St	105	0.2	2.9	0.0	23
2nd Ave	206	0.6	5.6	0.0	31
34th St	6	6.4	11.8	0.0	13
	107	1.5	9.8	0.1	23
35th St	7	4.2	7.2	0.0	13
36th St	8	1.2	11.5	0.1	28
4th Ave	108	0.5	3.8	0.0	28
37th St	9	0.5	9.6	0.1	28
Bret Hart Ct	110	0.1	3.2	0.0	31
5th Ave	10	0.9	12.4	0.1	28
	166	1.0	4.8	0.0	18
Martin Luther King B	11	14.2	17.8	0.0	6
Total		53.6	194.0	1.1	20

Arterial Level of Service: WB Broadway

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	166	1.1	4.7	0.0	22
38th St	10	0.5	3.6	0.0	24
Bret Hart Ct	110	0.6	11.9	0.1	29
37th St	9	0.2	3.5	0.0	29
4th Ave	108	0.6	8.4	0.1	32
36th St	8	0.4	4.9	0.0	22
3rd Ave	7	10.8	21.0	0.1	15
	107	1.4	5.2	0.0	18
34th St	6	7.8	15.3	0.1	15
2nd Ave	206	1.3	6.1	0.0	26
33rd St	105	0.5	6.5	0.0	26
33rd St	5	0.3	3.1	0.0	22
	4	0.6	9.6	0.1	26
32nd St	104	0.2	3.1	0.0	34
	19	1.4	6.5	0.0	22
	3	14.6	19.2	0.0	8
SR 99 Off Ramp	2	9.7	21.7	0.1	13
SB 99 SB On Ramp	1	1.6	13.2	0.1	21
	26	12.6	17.9	0.0	8
Total		66.2	185.2	0.9	18

Arterial Level of Service: EB Broadway

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	26	15.5	37.0	0.2	15
SB 99 SB On Ramp	1	1.5	6.9	0.0	20
SR 99 Off Ramp	2	3.1	14.4	0.1	20
Alhambra Blvd	3	10.0	21.3	0.1	14
	19	1.5	7.3	0.0	22
32nd St	104	0.3	5.0	0.0	29
	4	0.2	3.0	0.0	35
	5	0.6	9.3	0.1	27
33rd St	105	0.4	3.2	0.0	21
2nd Ave	206	2.1	6.5	0.0	26
34th St	6	11.4	16.9	0.0	8
	28	2.7	7.7	0.0	18
	107	2.4	6.1	0.0	18
35th St	7	12.9	16.0	0.0	6
36th St	8	2.2	12.2	0.1	25
4th Ave	108	0.7	4.0	0.0	28
37th St	9	0.7	9.8	0.1	27
Bret Hart Ct	110	0.2	3.3	0.0	31
5th Ave	10	1.3	12.7	0.1	26
	166	2.7	6.7	0.0	15
Martin Luther King B	11	14.6	18.3	0.0	6
Total		86.8	227.7	1.1	17

Arterial Level of Service: WB Broadway

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	166	0.7	4.2	0.0	24
38th St	10	0.4	3.8	0.0	27
Bret Hart Ct	110	0.4	11.5	0.1	29
37th St	9	0.2	3.5	0.0	29
4th Ave	108	0.7	8.5	0.1	32
36th St	8	0.3	5.0	0.0	22
3rd Ave	7	10.6	20.4	0.1	15
	107	1.4	5.6	0.0	18
	28	0.9	4.3	0.0	26
34th St	6	6.2	10.9	0.0	13
2nd Ave	206	1.4	5.4	0.0	25
33rd St	105	0.8	7.0	0.0	25
33rd St	5	0.2	2.9	0.0	23
	4	0.7	9.6	0.1	26
32nd St	104	0.5	3.4	0.0	31
	19	1.8	6.7	0.0	21
	3	17.1	22.0	0.0	7
SR 99 Off Ramp	2	10.4	22.6	0.1	13
SB 99 SB On Ramp	1	12.1	23.7	0.1	12
	26	14.9	20.3	0.0	7
Total		81.8	201.3	0.9	17

Intersection 1 **SR 99 On Ramp/Broadway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	100	99	99.3%	27.6	6.7	C
	Through	350	354	101.2%	26.9	8.4	C
	Right Turn	75	75	100.5%	19.0	7.7	B
	Subtotal	525	529	100.7%	26.0	7.4	C
EB	Left Turn						
	Through	330	323	97.8%	7.4	1.3	A
	Right Turn	50	49	97.6%	5.2	1.5	A
	Subtotal	380	371	97.7%	7.1	1.2	A
WB	Left Turn	205	187	91.0%	17.8	3.2	B
	Through	720	695	96.5%	19.3	3.3	B
	Right Turn						
	Subtotal	925	881	95.3%	19.0	2.9	B
Total		1,830	1,782	97.3%	18.7	3.2	B

Intersection 2 **SR 99 Off Ramp/Broadway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	235	232	98.9%	14.1	1.3	B
	Through						
	Right Turn	220	217	98.4%	7.8	1.4	A
	Subtotal	455	449	98.6%	11.0	1.1	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	430	422	98.2%	7.5	4.0	A
	Right Turn						
	Subtotal	430	422	98.2%	7.5	4.0	A
WB	Left Turn						
	Through	690	655	95.0%	16.4	2.4	B
	Right Turn						
	Subtotal	690	655	95.0%	16.4	2.4	B
Total		1,575	1,526	96.9%	12.4	2.3	B

Intersection 3 **Alhambra Blvd/Broadway-Y St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	30	27	90.0%	48.9	26.9	D
	Through	195	198	101.4%	56.9	15.0	E
	Right Turn	25	27	107.6%	15.5	16.1	B
	Subtotal	250	252	100.7%	52.2	14.9	D
SB	Left Turn	220	218	99.1%	59.6	25.9	E
	Through	70	68	97.4%	41.7	24.8	D
	Right Turn	90	96	106.1%	21.2	23.2	C
	Subtotal	380	382	100.4%	47.1	24.7	D
EB	Left Turn	220	219	99.3%	58.5	15.8	E
	Through	420	407	97.0%	12.5	2.5	B
	Right Turn	10	11	110.0%	8.6	8.1	A
	Subtotal	650	637	98.0%	28.5	7.1	C
WB	Left Turn	10	9	94.0%	91.8	25.6	F
	Through	570	536	94.1%	50.9	9.6	D
	Right Turn	190	183	96.5%	48.4	9.4	D
	Subtotal	770	729	94.7%	50.7	9.4	D
Total		2,050	1,999	97.5%	43.5	4.3	D

Intersection 4 **32nd St/Broadway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	25	25	99.6%	31.9	16.5	C
	Through						
	Right Turn	20	19	96.5%	15.9	15.4	B
	Subtotal	45	44	98.2%	26.7	16.3	C
SB	Left Turn	25	22	86.4%	38.9	22.9	D
	Through						
	Right Turn	60	57	95.3%	29.9	16.1	C
	Subtotal	85	79	92.7%	32.0	16.3	C
EB	Left Turn	40	40	99.8%	51.9	19.7	D
	Through	570	560	98.2%	16.3	7.1	B
	Right Turn	30	30	101.3%	15.7	10.8	B
	Subtotal	640	630	98.5%	18.3	7.5	B
WB	Left Turn	30	29	97.0%	36.0	17.4	D
	Through	665	628	94.4%	31.4	14.5	C
	Right Turn	10	12	123.0%	26.6	21.5	C
	Subtotal	705	669	94.9%	31.7	14.6	C
Total		1,475	1,422	96.4%	25.7	9.9	C

SimTraffic Post-Processor **Central Broadway**
Average Results from 10 Runs **Existing + Rd Diet**
Volume and Delay by Movement **AM Peak Hour**

Intersection 5 **N. 33rd St/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	80	78	97.8%	76.3	87.9	F
	Subtotal	80	78	97.8%	76.3	87.9	F
EB	Left Turn	85	82	96.9%	12.3	5.3	B
	Through	530	520	98.1%	4.3	4.9	A
	Right Turn						
	Subtotal	615	603	98.0%	5.3	4.7	A
WB	Left Turn						
	Through	625	596	95.3%	9.1	8.6	A
	Right Turn	55	51	92.7%	5.8	6.9	A
	Subtotal	680	647	95.1%	8.8	8.5	A
Total		1,375	1,328	96.5%	11.2	10.5	B

Intersection 105 **S. 33rd St/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	78.0%	134.3	197.5	F
	Through						
	Right Turn	5	6	118.0%	51.8	79.4	F
	Subtotal	10	10	98.0%	104.1	129.8	F
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	520	510	98.2%	1.7	2.0	A
	Right Turn	10	9	94.0%	3.1	7.0	A
	Subtotal	530	520	98.1%	1.7	2.0	A
WB	Left Turn	105	100	95.0%	8.6	6.8	A
	Through	675	643	95.3%	3.9	4.0	A
	Right Turn						
	Subtotal	780	743	95.2%	4.5	3.8	A
Total		1,320	1,273	96.4%	4.4	3.8	A

Intersection 206 **2nd Ave/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	105	101	96.3%	42.7	48.6	E
	Subtotal	105	101	96.3%	42.7	48.6	E
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	525	516	98.3%	5.5	6.9	A
	Right Turn						
	Subtotal	525	516	98.3%	5.5	6.9	A
WB	Left Turn						
	Through	780	745	95.5%	3.1	1.8	A
	Right Turn						
	Subtotal	780	745	95.5%	3.1	1.8	A
Total		1,410	1,362	96.6%	7.3	6.6	A

Intersection 6 **34th St/Broadway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	40	31	78.0%	138.3	87.6	F
	Through	170	172	101.1%	140.8	104.1	F
	Right Turn						
	Subtotal	210	203	96.7%	139.5	101.1	F
SB	Left Turn	85	85	99.5%	86.7	40.4	F
	Through	130	121	92.7%	77.9	40.1	E
	Right Turn	140	144	103.1%	71.0	40.5	E
	Subtotal	355	349	98.4%	77.2	39.9	E
EB	Left Turn	140	132	94.0%	69.6	40.7	E
	Through	470	460	97.9%	15.9	12.6	B
	Right Turn	20	22	111.5%	11.7	12.3	B
	Subtotal	630	614	97.5%	28.0	19.7	C
WB	Left Turn	15	13	87.3%	66.2	103.3	E
	Through	600	572	95.3%	36.2	5.1	D
	Right Turn	70	64	91.0%	38.2	25.3	D
	Subtotal	685	649	94.7%	37.2	8.8	D
Total		1,880	1,815	96.6%	54.7	14.4	D

Intersection 7 **35th St/Broadway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	25	24	97.6%	24.1	8.3	C
	Through	70	71	101.4%	31.5	28.1	C
	Right Turn	10	10	96.0%	16.1	14.0	B
	Subtotal	105	105	100.0%	27.4	16.1	C
SB	Left Turn	75	72	96.0%	34.2	28.1	C
	Through	35	36	102.0%	33.4	31.9	C
	Right Turn	10	10	103.0%	23.0	18.5	C
	Subtotal	120	118	98.3%	33.6	28.6	C
EB	Left Turn	40	38	96.0%	55.5	47.7	E
	Through	510	499	97.9%	17.9	8.0	B
	Right Turn	30	29	97.3%	13.6	8.5	B
	Subtotal	580	567	97.7%	19.7	9.1	B
WB	Left Turn	10	10	102.0%	72.0	12.8	E
	Through	640	615	96.1%	51.9	14.1	D
	Right Turn	45	44	97.6%	52.8	16.4	D
	Subtotal	695	669	96.3%	52.3	13.8	D
Total		1,500	1,459	97.3%	36.4	12.0	D

Intersection 8 **36th St/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	25	23	92.8%	266.2	199.4	F
	Subtotal	25	23	92.8%	266.2	199.4	F
EB	Left Turn	10	10	101.0%	10.3	8.2	B
	Through	570	556	97.5%	2.6	0.6	A
	Right Turn	10	10	103.0%	1.5	1.5	A
	Subtotal	590	576	97.6%	2.7	0.7	A
WB	Left Turn						
	Through	670	648	96.8%	13.7	6.2	B
	Right Turn	65	63	97.4%	18.2	29.6	C
	Subtotal	735	712	96.8%	13.8	7.2	B
Total		1,350	1,311	97.1%	12.4	5.6	B

SimTraffic Post-Processor **Central Broadway**
Average Results from 10 Runs **Existing + Rd Diet**
Volume and Delay by Movement **AM Peak Hour**

Intersection 108 **4th Ave/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	40	42	105.3%	9.0	2.9	A
	Subtotal	40	42	105.3%	9.0	2.9	A
SB	Left Turn						
	Through						
	Right Turn	40	36	90.8%	319.7	285.4	F
	Subtotal	40	36	90.8%	180.9	227.0	F
EB	Left Turn	30	28	92.0%	10.6	4.6	B
	Through	540	529	97.9%	0.6	0.3	A
	Right Turn						
	Subtotal	570	556	97.6%	1.1	0.4	A
WB	Left Turn	25	25	98.4%	20.2	8.2	C
	Through	695	676	97.3%	22.7	18.7	C
	Right Turn	5	7	130.0%	15.2	11.2	C
	Subtotal	725	707	97.5%	22.5	18.0	C
Total		1,375	1,342	97.6%	16.5	9.4	C

Intersection 9 **37th St/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	80	76	94.6%	86.3	37.9	F
	Through						
	Right Turn	30	28	94.3%	111.7	86.4	F
	Subtotal	110	104	94.5%	88.0	36.2	F
EB	Left Turn	20	18	88.5%	13.4	7.2	B
	Through	560	554	98.8%	1.0	0.2	A
	Right Turn						
	Subtotal	580	571	98.5%	1.4	0.5	A
WB	Left Turn						
	Through	695	680	97.9%	5.1	6.4	A
	Right Turn	70	70	99.6%	3.7	5.0	A
	Subtotal	765	750	98.1%	5.0	6.3	A
Total		1,455	1,425	98.0%	9.0	3.0	A

Intersection 10 **38th St/Broadway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	10	9	90.0%	36.8	41.9	D
	Through	5	5	98.0%	22.3	21.6	C
	Right Turn	115	114	98.8%	25.8	15.8	C
	Subtotal	130	128	98.1%	27.2	16.5	C
SB	Left Turn	5	4	84.0%	33.6	33.3	C
	Through						
	Right Turn	10	11	109.0%	19.0	33.0	B
	Subtotal	15	15	100.7%	19.3	9.5	B
EB	Left Turn						
	Through	645	628	97.4%	16.2	5.9	B
	Right Turn	10	10	95.0%	12.7	14.1	B
	Subtotal	655	638	97.4%	16.2	5.9	B
WB	Left Turn	50	50	99.0%	47.6	9.6	D
	Through	750	741	98.8%	13.2	7.6	B
	Right Turn	35	34	96.3%	9.0	4.4	A
	Subtotal	835	824	98.7%	15.2	7.4	B
Total		1,635	1,604	98.1%	16.6	5.5	B

Intersection 11 **Martin Luther King Blvd/Broadway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	375	369	98.3%	58.2	32.7	E
	Through						
	Right Turn	280	279	99.8%	52.7	23.0	D
	Subtotal	655	648	98.9%	55.8	28.2	E
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	570	549	96.2%	21.1	4.8	C
	Right Turn	195	197	100.8%	11.9	3.5	B
	Subtotal	765	745	97.4%	18.8	4.1	B
WB	Left Turn	100	103	103.1%	67.5	11.9	E
	Through	460	460	100.0%	18.1	10.6	B
	Right Turn						
	Subtotal	560	563	100.6%	27.2	9.6	C
Total		1,980	1,956	98.8%	32.5	10.6	C

Intersection 12 **Alhambra Blvd/2nd Ave** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	15	15	102.0%	5.9	1.8	A
	Through	30	31	104.0%	7.9	2.4	A
	Right Turn						
	Subtotal	45	47	103.3%	7.3	1.9	A
SB	Left Turn	5	4	76.0%	5.7	5.2	A
	Through	30	27	88.3%	10.8	3.8	B
	Right Turn	55	57	104.0%	5.7	1.4	A
	Subtotal	90	88	97.2%	7.3	2.0	A
EB	Left Turn	170	171	100.5%	2.8	0.4	A
	Through	115	112	97.6%	1.5	0.6	A
	Right Turn	5	5	102.0%	0.1	0.3	A
	Subtotal	290	288	99.3%	2.2	0.4	A
WB	Left Turn						
	Through	140	140	99.6%	0.3	0.1	A
	Right Turn	30	29	97.7%	0.1	0.2	A
	Subtotal	170	169	99.3%	0.3	0.1	A
Total		595	591	99.3%	2.9	0.5	A

Intersection 13 **33rd St/5th Ave** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	10	11	106.0%	14.0	6.2	B
	Through	15	15	100.0%	6.5	3.1	A
	Right Turn	20	20	101.5%	3.1	0.8	A
	Subtotal	45	46	102.0%	7.5	3.5	A
EB	Left Turn	20	18	90.0%	2.7	1.3	A
	Through	225	231	102.6%	4.5	1.3	A
	Right Turn	20	20	99.0%	1.6	1.8	A
	Subtotal	265	269	101.4%	4.2	1.1	A
WB	Left Turn						
	Through	140	139	99.3%	1.1	0.2	A
	Right Turn	50	51	101.8%	0.8	0.1	A
	Subtotal	190	190	99.9%	1.0	0.1	A
Total		500	504	100.9%	3.5	0.7	A

Intersection 113 **34th St/5th Ave** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	85	85	100.4%	5.8	0.8	A
	Through	135	142	105.3%	6.6	1.1	A
	Right Turn	40	40	99.3%	3.7	0.9	A
	Subtotal	260	267	102.7%	5.8	0.9	A
SB	Left Turn	25	24	96.4%	5.5	2.0	A
	Through	65	63	97.4%	6.5	1.0	A
	Right Turn	30	32	105.3%	4.2	0.8	A
	Subtotal	120	119	99.2%	5.6	0.7	A
EB	Left Turn	90	87	97.0%	4.6	0.4	A
	Through	145	154	106.3%	5.3	0.3	A
	Right Turn						
	Subtotal	235	242	102.8%	5.1	0.2	A
WB	Left Turn	25	24	95.6%	5.7	1.6	A
	Through	75	72	96.5%	6.5	0.6	A
	Right Turn	5	6	116.0%	4.6	2.1	A
	Subtotal	105	102	97.2%	6.2	0.5	A
Total		720	730	101.3%	5.6	0.4	A

Intersection 14 **34th St/Y St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	5	4	88.0%	4.2	3.2	A
	Through	170	165	97.0%	9.2	1.2	A
	Right Turn	55	51	92.0%	5.6	1.0	A
	Subtotal	230	220	95.6%	8.4	1.1	A
SB	Left Turn	90	87	96.9%	12.1	4.4	B
	Through	335	335	100.0%	12.0	2.8	B
	Right Turn	25	25	100.0%	11.0	8.7	B
	Subtotal	450	447	99.4%	11.9	3.3	B
EB	Left Turn	30	30	98.3%	7.2	1.7	A
	Through	85	81	95.2%	8.9	1.8	A
	Right Turn	35	35	100.6%	5.4	1.8	A
	Subtotal	150	146	97.1%	7.7	1.5	A
WB	Left Turn	30	27	91.0%	6.9	1.2	A
	Through	20	22	108.5%	7.6	0.6	A
	Right Turn	60	61	101.5%	4.3	0.4	A
	Subtotal	110	110	99.9%	5.8	0.6	A
Total		940	923	98.2%	9.7	1.9	A

SimTraffic Post-Processor **Central Broadway**
Average Results from 10 Runs **Existing + Rd Diet**
Volume and Delay by Movement **AM Peak Hour**

Intersection 15 **37th St /2nd Ave** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	15	15	102.7%	5.4	1.8	A
	Through	120	117	97.3%	6.3	0.8	A
	Right Turn	5	5	100.0%	3.2	2.6	A
	Subtotal	140	137	97.9%	6.0	0.6	A
SB	Left Turn	75	69	92.4%	6.8	0.7	A
	Through	90	91	101.2%	6.8	0.5	A
	Right Turn	30	30	98.3%	4.6	1.3	A
	Subtotal	195	190	97.4%	6.5	0.5	A
EB	Left Turn	60	64	106.2%	7.9	1.6	A
	Through	245	246	100.3%	9.2	1.4	A
	Right Turn	10	10	104.0%	5.6	3.6	A
	Subtotal	315	320	101.5%	8.8	1.4	A
WB	Left Turn	5	5	96.0%	4.7	4.9	A
	Through	65	66	101.7%	7.0	1.0	A
	Right Turn	20	19	95.5%	4.7	1.6	A
	Subtotal	90	90	100.0%	6.5	0.9	A
Total		740	737	99.6%	7.5	0.9	A

SimTraffic Post-Processor **Central Broadway**
Average Results from 10 Runs **Existing + Rd Diet**
Volume and Delay by Movement **PM Peak Hour**

Intersection 1 **SR 99 On Ramp/Broadway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	90	88	98.1%	32.9	4.8	C
	Through	360	369	102.4%	31.7	3.7	C
	Right Turn						
	Subtotal	450	457	101.6%	32.0	3.7	C
EB	Left Turn						
	Through	430	441	102.6%	7.5	0.8	A
	Right Turn	190	189	99.6%	5.1	0.7	A
	Subtotal	620	631	101.7%	6.8	0.7	A
WB	Left Turn	270	234	86.7%	20.2	6.6	C
	Through	580	557	96.0%	5.3	0.9	A
	Right Turn						
	Subtotal	850	791	93.0%	10.0	2.9	A
Total		1,920	1,878	97.8%	14.4	2.3	B

Intersection 2 **SR 99 Off Ramp/Broadway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	150	156	103.7%	14.5	1.5	B
	Through						
	Right Turn	120	118	98.5%	5.7	1.3	A
	Subtotal	270	274	101.4%	10.6	1.2	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	520	531	102.1%	5.8	0.6	A
	Right Turn						
	Subtotal	520	531	102.1%	5.8	0.6	A
WB	Left Turn						
	Through	700	638	91.1%	7.1	1.6	A
	Right Turn						
	Subtotal	700	638	91.1%	7.1	1.6	A
Total		1,490	1,443	96.8%	7.3	1.0	A

Intersection 3 **Alhambra Blvd/Broadway-Y St** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	30	30	99.3%	34.7	8.2	C
	Through	120	121	101.1%	24.8	2.3	C
	Right Turn	10	11	114.0%	1.0	0.2	A
	Subtotal	160	163	101.6%	25.5	2.6	C
SB	Left Turn	210	212	100.7%	38.2	10.0	D
	Through	200	193	96.7%	25.4	6.7	C
	Right Turn	240	233	97.1%	15.4	5.7	B
	Subtotal	650	638	98.1%	26.7	6.5	C
EB	Left Turn	200	199	99.3%	40.7	12.2	D
	Through	400	409	102.3%	15.4	1.8	B
	Right Turn	40	42	105.8%	11.3	4.5	B
	Subtotal	640	650	101.6%	22.8	4.2	C
WB	Left Turn	30	27	90.7%	90.7	12.3	F
	Through	430	377	87.6%	76.3	6.4	E
	Right Turn	190	162	85.4%	75.0	5.2	E
	Subtotal	650	566	87.1%	76.5	6.0	E
Total		2,100	2,017	96.0%	39.4	3.0	D

Intersection 4 **32nd St/Broadway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	20	20	101.0%	13.4	7.2	B
	Through						
	Right Turn	10	10	100.0%	12.1	8.8	B
	Subtotal	30	30	100.7%	13.8	5.1	B
SB	Left Turn	10	9	93.0%	11.5	7.1	B
	Through						
	Right Turn	50	48	96.4%	16.5	3.1	B
	Subtotal	60	58	95.8%	16.1	3.1	B
EB	Left Turn	20	18	88.5%	22.7	12.6	C
	Through	560	579	103.4%	5.8	1.2	A
	Right Turn	20	22	111.5%	3.4	3.0	A
	Subtotal	600	619	103.2%	6.0	1.1	A
WB	Left Turn	20	16	78.5%	55.0	15.0	D
	Through	565	492	87.2%	67.2	6.1	E
	Right Turn	10	10	103.0%	60.9	14.9	E
	Subtotal	595	518	87.1%	66.7	5.8	E
Total		1,285	1,225	95.3%	32.5	1.6	C

Intersection 5 **N. 33rd St/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	100	64	64.3%	432.6	215.9	F
	Subtotal	100	64	64.3%	432.6	215.9	F
EB	Left Turn	30	31	104.3%	8.2	3.0	A
	Through	550	570	103.6%	1.3	0.2	A
	Right Turn						
	Subtotal	580	601	103.7%	1.6	0.2	A
WB	Left Turn						
	Through	495	462	93.4%	29.4	8.9	D
	Right Turn	10	9	86.0%	13.2	13.0	B
	Subtotal	505	471	93.2%	29.2	8.8	D
Total		1,185	1,136	95.9%	34.6	15.0	D

Intersection 105 **S. 33rd St/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	10	10	95.0%	11.3	10.8	B
	Subtotal	10	10	95.0%	11.3	10.8	B
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	520	537	103.2%	1.3	0.6	A
	Right Turn	30	31	101.7%	1.3	3.1	A
	Subtotal	550	567	103.1%	1.2	0.5	A
WB	Left Turn	250	241	96.6%	24.2	10.8	C
	Through	505	474	93.8%	21.2	11.2	C
	Right Turn						
	Subtotal	755	715	94.7%	22.2	11.0	C
Total		1,315	1,292	98.3%	12.7	5.4	B

SimTraffic Post-Processor **Central Broadway**
Average Results from 10 Runs **Existing + Rd Diet**
Volume and Delay by Movement **PM Peak Hour**

Intersection 0 **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	Total Delay (sec/veh) LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
WB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
Total							

Intersection 6 **34th St/Broadway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	Total Delay (sec/veh) LOS
NB	Left Turn	20	18	90.0%	246.6	101.0	F
	Through	120	117	97.1%	208.9	93.4	F
	Right Turn	20	23	113.0%	206.8	119.2	F
	Subtotal	160	157	98.2%	214.1	97.1	F
SB	Left Turn	40	35	86.5%	248.7	58.2	F
	Through	215	202	93.8%	233.2	53.4	F
	Right Turn	175	167	95.4%	223.8	53.1	F
	Subtotal	430	403	93.8%	230.2	53.1	F
EB	Left Turn	75	74	98.8%	47.4	20.4	D
	Through	520	529	101.8%	13.2	1.2	B
	Right Turn	40	42	104.0%	10.9	5.0	B
	Subtotal	635	645	101.6%	17.2	4.8	B
WB	Left Turn	20	18	88.0%	37.2	11.6	D
	Through	560	536	95.6%	30.7	9.1	C
	Right Turn	30	29	95.0%	30.7	12.9	C
	Subtotal	610	582	95.3%	30.9	9.2	C
Total		1,835	1,787	97.4%	85.1	17.2	F

SimTraffic Post-Processor **Central Broadway**
Average Results from 10 Runs **Existing + Rd Diet**
Volume and Delay by Movement **PM Peak Hour**

Intersection 7 **35th St/Broadway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	60	59	98.2%	50.3	19.5	D
	Through	35	38	107.1%	51.5	14.5	D
	Right Turn	25	26	103.2%	32.1	16.7	C
	Subtotal	120	122	101.8%	46.8	15.3	D
SB	Left Turn	100	100	100.2%	62.0	47.7	E
	Through	70	70	99.9%	62.5	49.5	E
	Right Turn	90	86	95.8%	51.2	32.6	D
	Subtotal	260	256	98.6%	57.4	41.0	E
EB	Left Turn	30	30	100.7%	56.4	21.0	E
	Through	530	537	101.3%	17.1	5.9	B
	Right Turn	60	60	100.5%	15.4	5.9	B
	Subtotal	620	627	101.2%	18.6	6.2	B
WB	Left Turn	10	10	95.0%	70.0	37.8	E
	Through	460	438	95.3%	35.6	30.8	D
	Right Turn	25	26	104.4%	39.3	43.4	D
	Subtotal	495	474	95.7%	36.2	30.8	D
Total		1,495	1,480	99.0%	33.6	16.5	C

Intersection 8 **36th St/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn	20	19	93.5%	84.3	127.0	F
	Subtotal	20	19	93.5%	84.3	127.0	F
EB	Left Turn	20	18	91.0%	7.0	7.0	A
	Through	600	611	101.8%	2.2	0.5	A
	Right Turn	30	30	100.0%	1.4	0.4	A
	Subtotal	650	659	101.3%	2.3	0.5	A
WB	Left Turn						
	Through	475	460	96.9%	9.7	15.2	A
	Right Turn	30	30	100.7%	8.4	13.6	A
	Subtotal	505	491	97.1%	9.7	15.2	A
Total		1,175	1,168	99.4%	6.7	8.2	A

Intersection 108 **4th Ave/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	30	35	116.0%	8.8	5.1	A
	Subtotal	30	35	116.0%	8.8	5.1	A
SB	Left Turn						
	Through						
	Right Turn	20	18	92.0%	136.7	217.9	F
	Subtotal	20	18	92.0%	36.1	93.0	E
EB	Left Turn	20	20	98.0%	6.2	3.0	A
	Through	580	592	102.1%	0.6	0.2	A
	Right Turn						
	Subtotal	600	612	102.0%	0.8	0.2	A
WB	Left Turn	30	31	104.0%	19.0	24.7	C
	Through	485	473	97.5%	14.6	23.5	B
	Right Turn	5	5	100.0%	7.1	17.0	A
	Subtotal	520	509	97.9%	14.8	23.4	B
Total		1,170	1,174	100.3%	7.8	10.6	A

Intersection 9 **37th St/Broadway** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	55	53	95.6%	40.6	34.5	E
	Through						
	Right Turn	30	29	97.3%	41.0	57.7	E
	Subtotal	85	82	96.2%	41.2	43.7	E
EB	Left Turn	20	19	97.0%	5.5	2.4	A
	Through	590	608	103.0%	0.9	0.2	A
	Right Turn						
	Subtotal	610	627	102.8%	1.1	0.2	A
WB	Left Turn						
	Through	490	483	98.6%	4.2	6.7	A
	Right Turn						
	Subtotal	490	483	98.6%	4.2	6.7	A
Total		1,185	1,192	100.6%	5.3	5.9	A

Intersection 10 **38th St/Broadway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	10	8	81.0%	22.8	15.7	C
	Through	5	6	118.0%	9.4	8.1	A
	Right Turn	90	89	98.3%	15.6	3.7	B
	Subtotal	105	103	97.6%	15.9	2.7	B
SB	Left Turn	20	18	91.0%	24.7	14.1	C
	Through	10	8	84.0%	15.0	11.0	B
	Right Turn	5	7	134.0%	2.9	6.7	A
	Subtotal	35	33	95.1%	19.2	7.9	B
EB	Left Turn	5	5	104.0%	34.5	33.4	C
	Through	630	642	101.9%	27.3	10.9	C
	Right Turn	10	10	98.0%	28.2	15.1	C
	Subtotal	645	657	101.9%	27.4	10.9	C
WB	Left Turn	130	131	100.8%	42.3	6.8	D
	Through	475	472	99.3%	10.6	1.5	B
	Right Turn	30	29	97.3%	7.9	2.7	A
	Subtotal	635	632	99.5%	17.2	2.8	B
Total		1,420	1,425	100.4%	22.0	5.3	C

Intersection 11 **Martin Luther King Blvd/Broadway** **Signal**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	140	140	99.8%	51.3	9.7	D
	Through						
	Right Turn	180	177	98.3%	57.9	11.1	E
	Subtotal	320	317	99.0%	55.2	9.1	E
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	370	369	99.8%	18.0	1.5	B
	Right Turn	370	371	100.3%	17.0	4.0	B
	Subtotal	740	741	100.1%	17.5	2.5	B
WB	Left Turn	310	313	101.0%	62.8	9.4	E
	Through	495	489	98.8%	11.1	2.7	B
	Right Turn						
	Subtotal	805	802	99.7%	32.6	5.7	C
Total		1,865	1,860	99.7%	31.0	1.9	C

Intersection 12 **Alhambra Blvd/2nd Ave** **Side-street Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through	20	18	89.0%	7.1	1.8	A
	Right Turn						
	Subtotal	20	18	89.0%	7.1	1.8	A
SB	Left Turn	20	19	94.5%	10.7	5.3	B
	Through	40	40	101.0%	10.3	3.5	B
	Right Turn	140	137	98.1%	7.0	2.0	A
	Subtotal	200	197	98.3%	8.1	2.5	A
EB	Left Turn	80	84	104.6%	3.1	0.5	A
	Through	90	92	101.7%	0.8	0.4	A
	Right Turn						
	Subtotal	170	175	103.1%	1.9	0.3	A
WB	Left Turn	5	3	64.0%	1.1	0.9	A
	Through	240	247	102.7%	0.4	0.1	A
	Right Turn	30	30	100.7%	0.2	0.1	A
	Subtotal	275	280	101.8%	0.4	0.1	A
Total		665	670	100.7%	3.2	0.8	A

Intersection 13 **33rd St/5th Ave** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	20	18	91.5%	13.1	6.2	B
	Through	50	47	93.8%	8.4	2.2	A
	Right Turn	20	21	104.5%	4.6	2.2	A
	Subtotal	90	86	95.7%	8.5	2.3	A
EB	Left Turn	20	19	95.0%	3.2	1.9	A
	Through	125	128	102.7%	2.0	0.7	A
	Right Turn	40	41	102.0%	0.6	0.4	A
	Subtotal	185	188	101.7%	1.9	0.6	A
WB	Left Turn						
	Through	230	231	100.5%	1.4	0.1	A
	Right Turn	50	53	105.0%	0.9	0.3	A
	Subtotal	280	284	101.3%	1.3	0.1	A
Total		555	558	100.5%	2.8	0.7	A

Intersection 113 **34th St/5th Ave** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	40	41	101.8%	4.9	0.6	A
	Through	60	54	90.3%	5.9	0.6	A
	Right Turn	70	67	95.0%	3.2	0.4	A
	Subtotal	170	161	94.9%	4.5	0.4	A
SB	Left Turn	20	20	99.0%	6.4	3.1	A
	Through	130	130	100.1%	7.2	0.8	A
	Right Turn	90	91	101.2%	5.5	1.1	A
	Subtotal	240	241	100.4%	6.5	1.0	A
EB	Left Turn	60	60	99.2%	4.4	0.5	A
	Through	80	82	102.4%	5.1	0.5	A
	Right Turn	5	6	128.0%	3.1	1.4	A
	Subtotal	145	148	101.9%	4.7	0.4	A
WB	Left Turn	80	78	97.4%	6.9	1.6	A
	Through	150	152	101.6%	7.9	1.1	A
	Right Turn	30	32	108.0%	5.4	1.9	A
	Subtotal	260	263	101.0%	7.3	1.1	A
Total		815	813	99.7%	6.0	0.6	A

Intersection 14 **34th St/Y St** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	10	10	97.0%	5.3	3.3	A
	Through	130	126	96.5%	9.2	1.6	A
	Right Turn	20	23	112.5%	6.9	2.5	A
	Subtotal	160	158	98.6%	8.8	1.5	A
SB	Left Turn	100	97	97.0%	134.5	87.3	F
	Through	390	369	94.5%	124.8	86.0	F
	Right Turn	20	21	104.5%	136.8	115.7	F
	Subtotal	510	486	95.4%	127.6	87.6	F
EB	Left Turn	10	9	94.0%	7.5	5.9	A
	Through	60	56	92.5%	8.0	1.2	A
	Right Turn	10	9	89.0%	7.7	5.7	A
	Subtotal	80	74	92.3%	8.1	1.8	A
WB	Left Turn	40	40	98.8%	16.8	10.1	C
	Through	40	40	99.8%	10.0	1.9	A
	Right Turn	60	59	98.8%	7.1	4.5	A
	Subtotal	140	139	99.1%	10.5	4.2	B
Total		890	857	96.2%	74.6	46.0	F

Intersection 15 **37th St /2nd Ave** **All-way Stop**

Direction	Movement	Demand Volume (vph)	Served Volume (vph) Average	Served Volume (vph) Percent	Total Delay (sec/veh) Average	Total Delay (sec/veh) Std. Dev.	LOS
NB	Left Turn	20	19	97.0%	5.0	0.5	A
	Through	50	53	105.2%	6.0	0.9	A
	Right Turn	5	6	120.0%	2.8	1.9	A
	Subtotal	75	78	104.0%	5.5	0.6	A
SB	Left Turn	30	28	94.3%	6.1	1.8	A
	Through	80	80	99.6%	6.8	0.8	A
	Right Turn	40	41	103.5%	4.5	0.9	A
	Subtotal	150	149	99.6%	6.0	0.8	A
EB	Left Turn	50	48	95.8%	7.1	1.7	A
	Through	110	108	98.4%	7.5	0.7	A
	Right Turn	20	20	99.0%	4.4	1.1	A
	Subtotal	180	176	97.7%	7.0	0.9	A
WB	Left Turn	10	10	104.0%	5.9	2.8	A
	Through	240	249	103.8%	7.8	0.6	A
	Right Turn	20	22	110.0%	5.4	1.5	A
	Subtotal	270	281	104.2%	7.5	0.6	A
Total		675	685	101.4%	6.9	0.5	A

Arterial Level of Service: EB Broadway

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	26	8.1	20.9	0.1	16
SB 99 SB On Ramp	1	7.9	13.1	0.0	10
SR 99 Off Ramp	2	6.5	18.2	0.1	16
Alhambra Blvd	3	12.1	23.0	0.1	12
	19	2.4	8.7	0.0	20
	4	11.9	18.3	0.1	11
	5	3.1	12.0	0.1	23
33rd St	105	1.3	4.9	0.0	20
2nd Ave	206	4.0	8.0	0.0	17
34th St	6	13.7	19.8	0.0	8
	28	2.0	7.2	0.0	20
	107	4.4	8.0	0.0	14
35th St	7	11.7	14.8	0.0	7
36th St	8	2.8	13.0	0.1	24
4th Ave	108	0.6	3.8	0.0	30
37th St	9	1.0	10.1	0.1	27
Bret Hart Ct	110	0.4	3.5	0.0	29
5th Ave	10	14.5	25.9	0.1	13
Martin Luther King B	11	20.0	27.5	0.1	7
Total		128.6	260.7	1.0	14

Arterial Level of Service: WB Broadway

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
38th St	10	13.6	20.4	0.1	10
Bret Hart Ct	110	6.0	17.1	0.1	19
37th St	9	2.3	5.5	0.0	18
4th Ave	108	12.8	20.7	0.1	13
36th St	8	9.2	13.8	0.0	8
3rd Ave	7	42.8	52.9	0.1	6
	107	8.0	12.0	0.0	8
	28	15.3	18.8	0.0	6
34th St	6	32.8	37.4	0.0	4
2nd Ave	206	3.1	9.3	0.0	18
33rd St	105	2.6	6.7	0.0	21
33rd St	5	5.3	9.2	0.0	11
	4	25.4	34.3	0.1	8
	19	19.5	26.4	0.1	8
	3	28.6	34.0	0.0	5
SR 99 Off Ramp	2	14.9	26.2	0.1	11
	1	18.6	30.5	0.1	9
	26	7.8	13.0	0.0	11
Total		268.6	388.1	1.0	9

Arterial Level of Service: EB Broadway

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	26	8.4	21.0	0.1	16
SB 99 SB On Ramp	1	7.7	13.2	0.0	11
SR 99 Off Ramp	2	6.0	17.8	0.1	16
Alhambra Blvd	3	16.3	27.0	0.1	10
	19	1.4	8.5	0.0	21
	4	4.4	11.9	0.1	16
	5	1.6	12.4	0.1	22
33rd St	105	1.6	5.9	0.0	17
2nd Ave	206	7.0	12.8	0.0	13
34th St	6	14.6	20.9	0.0	6
	28	1.8	7.9	0.0	18
	107	3.8	8.2	0.0	14
35th St	7	12.7	16.6	0.0	6
36th St	8	2.7	15.0	0.1	20
4th Ave	108	0.8	4.5	0.0	25
37th St	9	1.6	12.5	0.1	21
Bret Hart Ct	110	0.9	4.6	0.0	22
5th Ave	10	26.8	40.3	0.1	8
Martin Luther King B	11	16.2	25.1	0.1	8
	40	1.1	11.7	0.1	23
Total		137.3	297.8	1.1	14

Arterial Level of Service: WB Broadway

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	40	13.6	43.5	0.2	18
Martin Luther King B	11	10.7	21.2	0.1	12
38th St	10	9.5	17.7	0.1	11
Bret Hart Ct	110	3.5	16.8	0.1	20
37th St	9	1.5	5.3	0.0	19
4th Ave	108	5.9	15.4	0.1	17
36th St	8	4.4	10.0	0.0	11
3rd Ave	7	26.2	38.0	0.1	8
	107	5.0	10.1	0.0	10
	28	11.1	15.4	0.0	7
34th St	6	28.2	34.5	0.0	4
2nd Ave	206	6.4	12.4	0.0	11
33rd St	105	16.8	23.1	0.0	7
33rd St	5	25.0	29.5	0.0	3
	4	66.6	77.2	0.1	4
	19	26.3	34.3	0.1	6
	3	49.4	55.7	0.0	3
SR 99 Off Ramp	2	6.8	18.4	0.1	15
	1	4.2	15.9	0.1	18
	26	5.4	10.9	0.0	13
Total		326.4	505.4	1.2	9

C | PREFERRED CONCEPT STRIP MAP

LEGEND

RT Bus Stops
Retain Palm Tree (23)
Remove Palm Tree (17)
Potential New Palm Tree (24)
Existing Traffic Signal (6)
Proposed Traffic Signal (3)
Potential Entry Monument (7)

CONCEPTUAL - NOT FOR CONSTRUCTION. ADDITIONAL
DETAILED ANALYSIS AND ENGINEERING DESIGN REQUIRED.

Central Broadway Complete Streets Plan: Preliminary Striping Design (CA-99 to MLK Jr. Blvd)

D | PLANNING LEVEL COST ESTIMATE

Envision Broadway Preferred Concept Planning Level Cost Estimate
Franklin Blvd to MLK Jr. Blvd

Item No.	Item Description	Unit	Quantity	Item Price	Total
1	Prepare Storm Water Pollution Prevention Plan	LS	1	$10,000	$10,000
2	Temporary BMP's	LS	1	$50,000	$50,000
3	Construction Area Signs	LS	1	$10,000	$10,000
4	Tree Removal	EA	17	$1,000	$17,000
5	Develop Water Supply	LS	1	$50,000	$50,000
6	Traffic Control System	LS	1	$100,000	$100,000
7	Roadway Excavation	CY	2,500	$50	$125,000
8	Asphalt Concrete (New pavement & 2" Overlay)	TON	5,500	$190	$1,045,000
9	Aggregate Base	CY	750	$75	$56,250
10	Base Repair (7% of pavement)	TON	1,100	$240	$264,000
11	Sidewalk	SF	10,000	$10	$100,000
12	Concrete Curb and Gutter	LF	1,500	$35	$52,500
13	Median Curb	LF	4,750	$20	$95,000
14	Striping	LF	40,000	$2	$80,000
15	Markings	SF	3,600	$10	$36,000
16	Plaza and Hardscape	SF	10,000	$15	$150,000
17	Curb Ramps	EA	27	$5,000	$135,000
18	Planting & Irrigation	SF	12,500	$5	$62,500
19	New Trees	EA	24	$2,000	$48,000
20	Signal Modifications	EA	7	$150,000	$1,050,000
21	New Signals	EA	3	$500,000	$1,500,000
22	Pedestrian Lighting	EA	100	$2,500	$250,000

CONSTRUCTION SUBTOTAL	**$5,287,000**
Miscellaneous Items (10%)	$529,000
Mobilization (10%)	$529,000
Contingency (30%)	$1,587,000
CONSTRUCTION TOTAL	**$7,932,000**
Escalation (3%/year); assume 2026	$1,539,000
Total Escalated Construction Cost	**$9,471,000**

Soft Costs:	
Grant Application	$20,000
Scoping & Environmental (10%)	$950,000
Design (15%)	$1,430,000
Construction (15%)	$1,430,000
Total Project Cost	**$13,301,000**

E | COMMENT LETTERS

OAK★PARK

January 23, 2020

City of Sacramento
915 I Street
Sacramento, CA 95814

Dear City Councilmembers and City Staff:

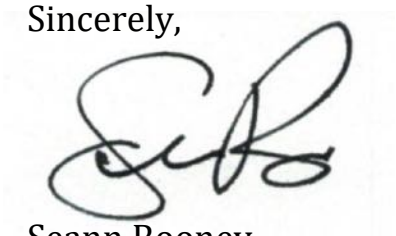
I am writing to express our support for the past and current Broadway planning efforts in the Oak Park neighborhood. Our Board has been engaged by the Envision Broadway project team since day one and we would like to offer our support the draft plan.

Key to the success of the overall effort were City staffmember Leslie Mancebo and lead consultant Adrian Engel. I was extremely impressed by their professionalism and commitment to a comprehensive planning exercise. Both are outstanding individuals, with great vision and the best interests of the community in mind.

We look forward to supporting the City's exploration of future funding opportunities. In fact, our Board recently voted to support an allocation of business district funds to streetscape improvements outlined in the draft plan and in the spirit of contributing to the plan's implementation.

I am excited to follow the process as we move forward, together. Feel free to contact me for more information or participation.

Sincerely,



Seann Rooney
Executive Director

P.O Box 5783 – Sacramento, CA 95817 / Phone (916) 942-9450

OAK PARK NEIGHBORHOOD ASSOCIATION

February 7, 2020

City of Sacramento

915 I Street

Sacramento, CA 95814

RE: Support for Envision Broadway in Oak Park Draft Plan:

Dear Councilmembers and Staff to the City of Sacramento,

On behalf of the Oak Park Neighborhood Association, I am writing in support of the adoption of the Envision Broadway in Oak Park Draft Plan, to enhance accessibility and safety for all along Broadway in Oak Park.

The Oak Park Neighborhood Association (OPNA) is a community building organization that serves as a resource to inform and advocate for quality of life in the Oak Park neighborhood. Central to our mission is advocacy for safe, multimodal transportation options including walking, biking, driving, and riding transit. In early 2017, OPNA collaborated with WALKSacramento to develop the Oak Park Active Travel Study funded by The California Endowment in order to address traffic safety and mobility concerns expressed by residents, which identified opportunities to enhance the neighborhood with better facilities for people walking and biking, traffic calming, and better transit stops. As such, OPNA has a rich history working with these partners to address inequities related to transportation and mobility, which the Envision Broadway plan will help to address.

Given the demonstrated competency and expertise of city staff and partners in community engagement and planning, and commitment to addressing our neighborhood's demonstrated transportation and mobility needs, we urge the adoption of this plan and encourage further exploration of funding opportunities to support these efforts. If you would like to speak with us further, please do not hesitate in contacting OPNA Secretary Andrea Rivera at andrea@oakparkna.com or (916) 572-6762.

Sincerely,

Andrea Rivera
Secretary, Oak Park Neighborhood Association (OPNA)
(916) 572-6762
andrea@oakparkna.com

Leslie Mancebo
Transportation Program Analyst
City of Sacramento/Department of Public Works
Sacramento, CA 95822

January 29, 2020

Dear Leslie,

As you know, the Sacramento Area Bicycle Advocates (SABA) is a non-profit organization dedicated to safe streets for cyclists and pedestrians and for a seamless transportation system that allows more people to get out of their cars for daily trips for work and play. Many of our members and supporters live near or in Oak Park making this project one we fully support and are excited to see its successful implementation.

Oak Park has a great history and this project will help preserve the feel of Oak Park while making Broadway a safer and healthier corridor to navigate, which will bring more people into the area. This project will implement Complete Streets which will benefit all users of the corridor because Complete Street design is known to foster healthy communities. They play an important role in livable communities where all people, regardless of age and ability, feel safe on the roadways.

The input during the data collection phase of the project clearly showed that most bicyclists did not feel comfortable using Broadway and were forced to find alternate streets which lengthened their total trip time. Creating road diets with buffered bike lanes and slowing traffic on Broadway will definitely benefit all users and travel modes. Slowing down traffic will allow users to better enjoy the variety of shops and restaurants along Broadway. It will naturally bring people into the area which will help to fuel a thriving community.

We urge the City Council to embrace this project and to seek funding for it. Oak Park is a wonderful asset to Sacramento. Shouldn't it be a place where adults and children can safely travel in and through? The Envision Broadway in Oak Park Plan will get us there.

Sincerely,

Debra Banks
Acting Executive Director

January 31, 2020

Leslie Mancebo
Department of Public Works
City of Sacramento
915 I Street
Sacramento, CA 95814

Re: Support for Envision Broadway in Oak Park

WALKSacramento is pleased to share our strong support for the approval of the Envision Broadway in Oak Park Project to study the Broadway corridor between Franklin Boulevard and Martin Luther King Jr. Boulevard.

In 2017, WALKSacramento worked with the Oak Park Neighborhood Association to create the Oak Park Active Travel Study to identify opportunities to enhance the neighborhood with multi-modal facilities and traffic calming. We are proud to see the City of Sacramento continue to build upon this initial work to develop the Envision Broadway in Oak Park project. This project will work to improve safety and mobility for pedestrians, bicyclists, transit users, and drivers.

WALKSacramento has worked with the City of Sacramento over last several years to develop a vision for a safer, more pedestrian and bicycle friendly Broadway corridor that will not only provide a comprehensive multimodal transportation corridor, but improves public health, local economic development, and urban sustainability. We feel strongly that the proposed plans achieve those objectives and continues the City's work toward improving mobility for all communities.

Sincerely,

Molly Wagner, CPTED CPD
Project Coordinator

909 12th Street, Suite 203
Sacramento, CA 95814
916-446-9255