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To:	Leslie Mancebo, Jeff Jelsma, and Charisse Padilla, City of Sacramento
From:	Mauricio Hernández and Cole Peiffer, Alta Planning + Design
Date:	July 21, 2023
Re:	**Streets for People: Sacramento Active Transportation Plan - Existing Conditions (Final Deliverable)**

Table of Contents

1. Introduction

Project Description

The *Streets for People: Sacramento Active Transportation Plan* will improve conditions for people walking, biking, and rolling in the City of Sacramento. This citywide plan will address active transportation needs throughout the city and will target three focus plan areas of high-need and historical disinvestment (shown in **Figure 1**) for expanded engagement opportunities and in-depth analysis. Through this effort, the project team will focus on addressing citywide issues for people walking, biking, and rolling, while prioritizing engagement in areas with the greatest equity needs and largest gaps in active transportation infrastructure. To guide the development of this plan, the City has created a Community Planning Team (CPT) composed of a diverse group of residents from the focus plan areas. Feedback derived from the CPT will help guide the project engagement and target recommendations to meet the unique needs of each focus plan area.

The community will have opportunities to engage throughout the project, including walking and biking audits, interactive maps and surveys, in person and virtual community meetings, and pop-up events across the city. Data analysis will inform and support public engagement as well as the identification of community needs. Recommendations from the *Streets for People* plan will focus on improving safety, connectivity, and accessibility for people walking, biking, or rolling through specific engineering enhancements, policy improvements or adjustments, and new or adapted programs across the city. The comprehensive recommendations will be part of the final *Streets for People* plan, which will provide project and policy guidance for active transportation across the city for years to come.

Figure 1: City of Sacramento and Focus Plan Areas for Targeted Engagement
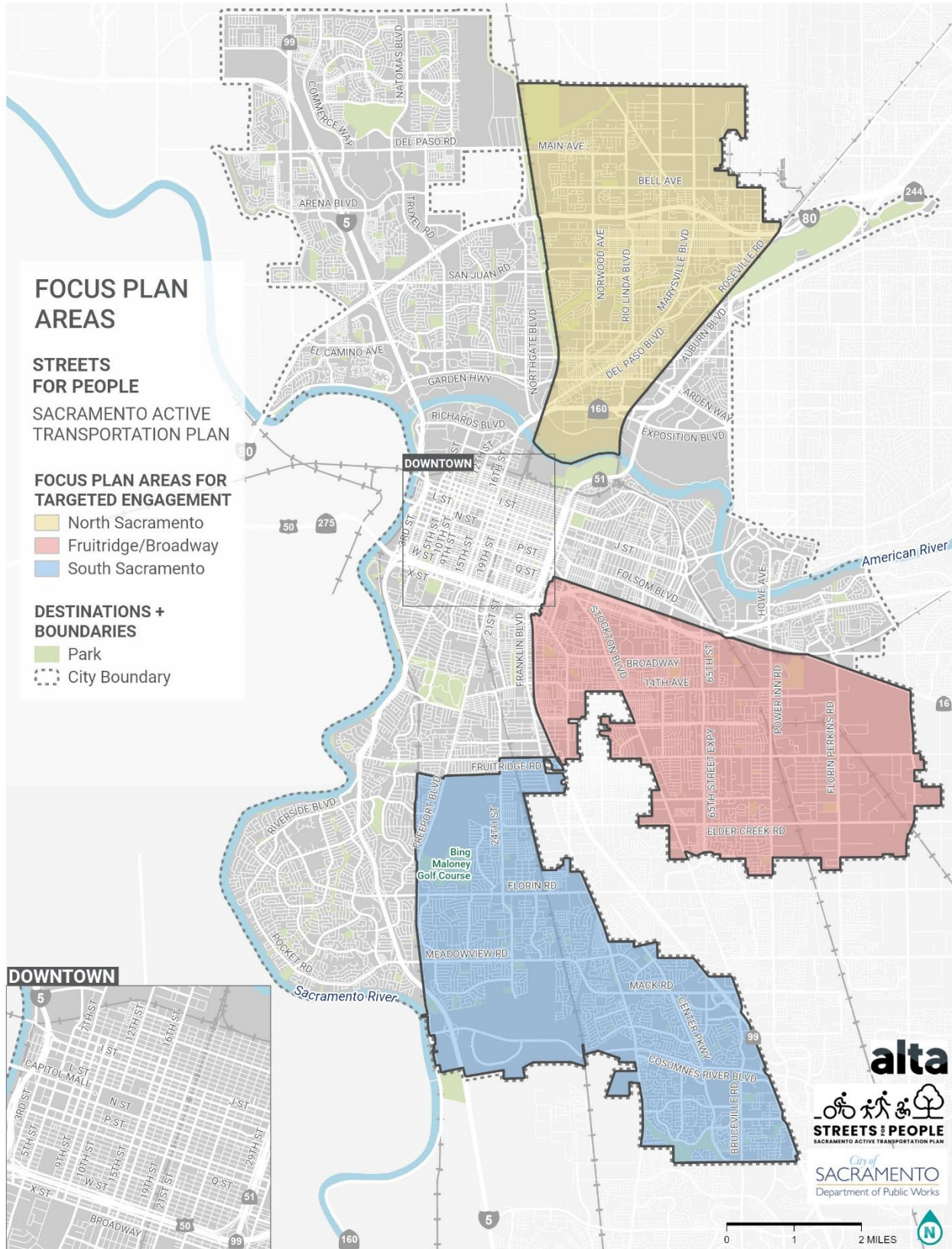
Memo Overview

This memo summarizes the existing conditions for people walking, biking, and rolling in Sacramento based on data from a variety of sources including past plans and planning documents as well as geospatial data. This section provides an overview of analysis findings that identify leading issues for active transportation in the city. These findings will be combined with outcomes from the public engagement process to develop community-driven and data-informed recommendations and improvements in the final *Streets for People* plan.

The memo is organized into seven sections:

- Section 1 – Introduction: Memo overview and introduction.
- Section 2 – Plan Review: List of reviewed plans and policies and a high-level summary of findings.
- Section 3 – Community Overview and Resources: Summary of demographic, income, and land use data
- Section 4 – Equity Profile: Summary of equity analysis metrics (CalEnviroScreen 4.0).
- Section 5 – Public Health: Summary of health analysis metrics (Healthy Places Index, access to schools, heat vulnerability).
- Section 6 – Transportation Profile: Overview of existing sidewalk, bicycle, transit, roadway networks, and typical housing and transportation costs as a percentage of income.
- Section 7 – Collision Analysis and High-Injury Network Comparison: Collision data overview highlighting trends from the five most recent years of available data.

Summary of Findings

Conditions for people walking, biking, and rolling in the City of Sacramento vary significantly across the city based on equity, health, housing costs, and transportation safety metrics. While there are areas throughout the city exhibiting varying degrees of need for improvements based on an analysis of existing infrastructure as well as environmental and socio-economic metrics, the greatest concentration of issues were identified within the three focus plan areas. From access to parks and grocery stores to the number of predicted extreme heat events, the identified focus plan areas consistently ranked highest in need for improvement. This reiterates the importance of providing focused analysis and outreach in these three focus plan areas.

While safety for people walking and biking continues to be a key priority across the city, **fatal collisions involving people walking accounted for more than half (51.4%) of all fatal collisions in the city in 2020, increasing from 27% in 2016**. Comparatively, no fatal collisions were recorded for people bicycling in 2020, an improvement from the nine fatal collisions in 2016. Furthermore, **roadway segments on moderate-speed roadways (posted speed limits between 35 and 40 mph) accounted for nearly one-third of all fatal and serious injury collisions for people walking**. These roadways often present barriers for people walking, with typically longer (i.e., more than ¼ mile) distances between crossings than lower-speed roadways (posted speed lower than 35 mph). Similarly, wrong-way riding on moderate-speed roadways was the leading collision factor and accounted for 10% of all fatal and serious injury collisions involving people bicycling over the past five years. Targeting improvements on these roadways in key areas of need will help address leading safety issues for people walking and bicycling in the City of Sacramento.

2. Plan Review

Planning improvements to the transportation network requires an iterative process that relies on past planning documents to maintain focus on previously identified issues, evaluate progress made, and refine recommended improvements from prior plans. The *Streets for People* planning process is rooted in findings and recommendations from prior citywide planning documents; plans relating to each focus plan area were also reviewed and are detailed below. A summary of the findings from this plan review is included at the end of this section.

Citywide

- Pedestrian Master Plan (2006), City of Sacramento
- Design and Procedure Manual Section 15 – Street Design Standards (2009), City of Sacramento
- Bicycle Master Plan (2016; amended 2018), City of Sacramento
- Vision Zero Sacramento Action Plan (2018), City of Sacramento
- Complete Streets Policy (2019), City of Sacramento
- Vision Zero Top 5 Corridors (2020), City of Sacramento
- Criteria and Guidance for Creative Crosswalks (2021), City of Sacramento
- Pedestrian Crossing Guidelines – Treatment Applications Guide (2021), City of Sacramento
- Vision Zero School Safety Study (2021), City of Sacramento
- Climate Action Plan (2022), City of Sacramento
- Climate Action Plan - Adaptation Plan (2022), City of Sacramento

Focus Plan Area Specific

Fruitridge/Broadway Plans

- Southeast Sacramento Bicycle and Pedestrian Access Study (2008), City of Sacramento
- Fruitridge Broadway Community Plan (2015)
- Oak Park Active Travel Study (2017), Oak Park Neighborhood Association
- Sacramento Center for Innovation (2013; amended 2018), City of Sacramento
- Peter Burnett Elementary School Walk Audit Report (2018), WALKSacramento (Civic Thread)
- Will C. Wood Middle School Walk Audit Report (2019), WALKSacramento (Civic Thread)
- Fruitridge Walk Audit Report (2019), Sacramento County Public Health
- Oak Ridge Elementary School Walk Audit Report (2019), WALKSacramento (Civic Thread)
- Elder Creek Elementary School Walk Audit Report (2020), WALKSacramento (Civic Thread)
- Stockton Boulevard Corridor Plan (2021), City of Sacramento

North Sacramento Plans
- Swanston Station Transit Village Specific Plan (2007), City of Sacramento
- North Sacramento Walk Audit Report (2019), Sacramento County Public Health

South Sacramento Plans
- Southeast Sacramento Bicycle and Pedestrian Access Study (2008)
- South Area Community Plan (2015)
- Freeport Boulevard Walk Audit Report (2020), Freeport Boulevard Transportation Safety Committee
- Safe Routes to School South Sacramento – Webpage
- Woodbine Park Walk Audit Report (2021), Sacramento County Public Health

Findings

The plans that were reviewed span a 17-year period during which time the City implemented enhancements to the walking and biking networks, as well as supportive policies and programs. In recent years, the City has worked to evaluate and analyze existing safety and connectivity issues, most notably with the Vision Zero program. Adopted in 2018, the Vision Zero Action Plan identified the citywide high injury network (HIN). Since the adoption of the Action Plan, the City has conducted a detailed review of the top five corridors from the HIN and identified focused safety improvements around 20 schools. The City has also developed policies to enhance active transportation networks and improve crossings. These include the Complete Streets Policy, Pedestrian Crossing Guidelines, and Guidance for Creative Crosswalks, which were developed and passed between 2019 and 2021. In concert with these efforts, and to meet greenhouse gas and vehicle miles traveled (VMT) reduction targets, the City recently drafted the *Climate Action and Adaptation Plan* (awaiting ratification as of the writing of this memo), which identifies the implementation of high-quality active transportation networks as the highest priority mobility investment for the City.

The City's focus on improving active transportation has increased substantially over the past five years and will continue to grow based on the recently approved *Transportation Priorities Plan Prioritization* and the anticipated *Climate Action and Adaptation Plan*. Implementation of active transportation projects is a strategy in both plans to equitably address transportation safety, sustainability, public health, and air quality. The *Streets for People* plan will further support these community-wide goals by acting as the guide to the implementation of active transportation facilities.

3. Community Overview and Resources

California's capital, Sacramento is located at the confluence of the American River and Sacramento River within Sacramento County. Covering approximately 99 square miles, the city lies in northern California's Sacramento Valley, approximately 70 miles to the northeast of the San Francisco Bay Area and 25 miles west of the Sierra Nevada Mountain range. Sacramento is generally flat with a warm and temperate climate.

Demographics

Sex and Gender

In 2021, the city had an estimated population of 518,605.[1] The population is fairly evenly split by sex, with 51% women and 49% men. Compared to the county and state (which both have a median age of 37), the city is slightly younger with a median age of 35.[2] While the city and county have a similar age breakdown, the City of Sacramento has a higher percentage of people between the ages of 20 and 34 (25%) compared to the county (22%). **Figures 2** and **3** provide a breakdown of the city and county populations by age and sex.
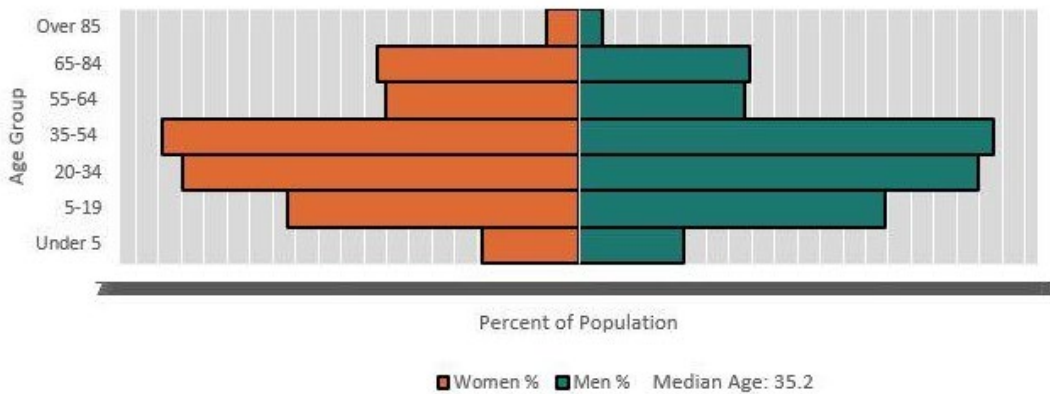
Figure 2: City of Sacramento: Age and Sex

Figure 3: Sacramento County: Age and Sex

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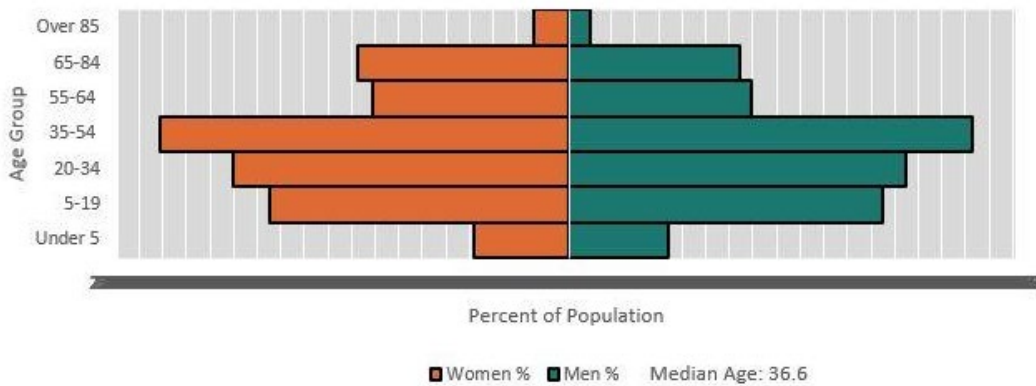
[1] American Community Survey, 5-year estimates (2017–2021).
[2] Ibid.

Race

Sacramento is a diverse city with the following race and ethnicity characteristics: Asian residents account for 19%, Black/African American residents account for 13%, residents of Hispanic descent account for 29%, and white residents account for 31% of the population. The complete racial profile of the city is presented in **Figure 4**. **Table 1** compares the racial breakdown of city residents to the county and state.

Table 1: City of Sacramento, Sacramento County, and California Race/Ethnicity

Race	City of Sacramento	Sacramento County	California
African American or Black	13%	9%	5%
American Indian	0.3%	0.3%	0.3%
Asian	19%	17%	15%
Hispanic	29%	24%	40%
Native Hawaiian	2%	1%	0.3%
Two or More Races	6%	6%	4%
Some Other Race	1%	0.4%	0.4%
White	31%	43%	36%

Source: American Community Survey, 5-year estimates (2017–2021)

Figure 4: City of Sacramento: Race/Ethnicity
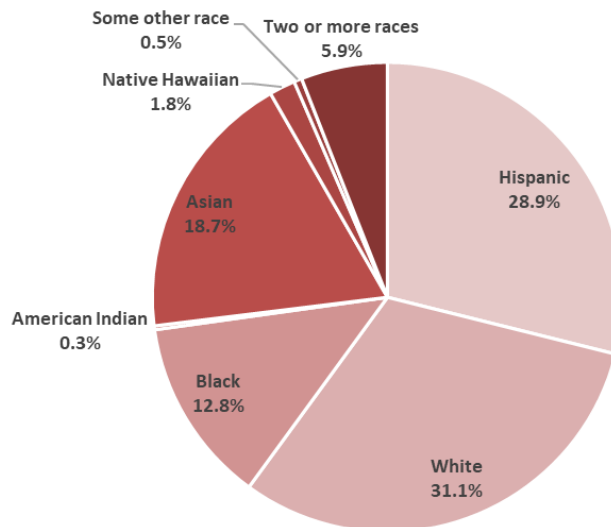
Income

The overall city median household income (MHI) is approximately $71,000, which is below the MHI for both the county ($76,000) and the state of California ($84,000).[3] There are more residents in the city living in poverty than the county or the state with approximately 14.8% of city residents living below the poverty line, compared to 13.3% in the county and 12.3% in the state. **Figure 5** shows the MHI for the city, broken down by census tract. The areas with the lowest MHI include the project focus plan areas of North Sacramento, South Sacramento, and Fruitridge/Broadway (see **Figure 5**). As previously mentioned, these are areas of historical disinvestment and high need. The highest concentration of census tracts in the lowest quartile (households making less than $49,856) is in the North Sacramento focus plan area, particularly between the Sacramento Northern Railroad and the Walter S. Ueda Parkway to the west, the American River to the south, the city limits to the east, and Main Avenue to the north. Outside the three focus plan areas, the northwest area of Downtown—including the Mansion Flats, Alkali Flat, Southern Pacific/Richards, and Dos Rios Triangle neighborhoods—also has a high concentration of low-income households.

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[3] American Community Survey, 5-year estimates (2017–2021).

Figure 5: Median Household Income
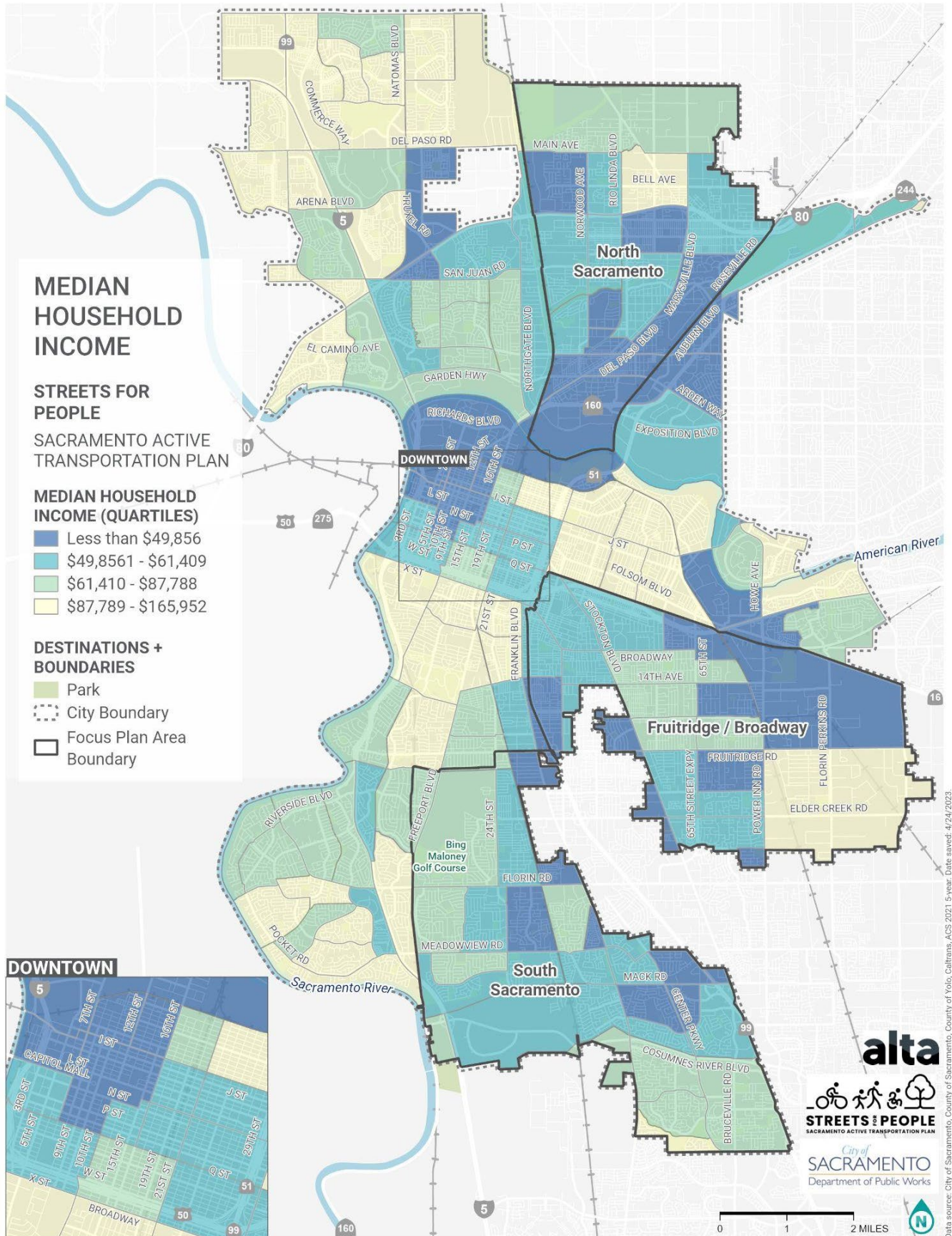
Housing

Housing burdened low-income households are households that are both low-income and highly burdened by housing costs. Data from the Housing and Urban Development (HUD) Comprehensive Housing Affordability Strategy (CHAS) is used to determine the Housing Burden Indicator within the CalEnviroScreen 4.0 dataset. The indicator shows the percent of households in a census tract that are both low income (making less than 80% of their county's median household income) and severely burdened by housing costs (paying greater than 50% of their income for housing costs).

As seen in **Figure 6**, a majority of households in the focus plan areas fall within the 75th to 100th percentile of the Housing Burden Indicator. This means that a higher percentage of households in these census tracts are both low-income and pay greater than 50% of their income for housing costs compared to other census tracts within Sacramento. The data also indicates that certain neighborhoods within these focus plan areas are more burdened than others.

Focus plan areas with census tracts falling within the 75th to 100th percentile of the Housing Burden Indicator include:

- **Fruitridge/Broadway** focus plan area: north, central, and south Oak Park; Fruitridge Manor; Avondale; Southeast Village; and Glen Elder neighborhoods.
- **North Sacramento** focus plan area: all neighborhoods south of Main Avenue.

- **South Sacramento** focus plan area: the Meadowview, Parkway, and portions of the Valley Hi / North Laguna neighborhoods.

There are also pockets of high housing burden in the Village 5 neighborhood near the Interstate 80/Truxel Road exit; in the Alkali Flat neighborhood, the North City Farms neighborhood, and the area between the American River and Interstate 80 Business Route.

Figure 6: CalEnviroScreen Housing Burden Percentile
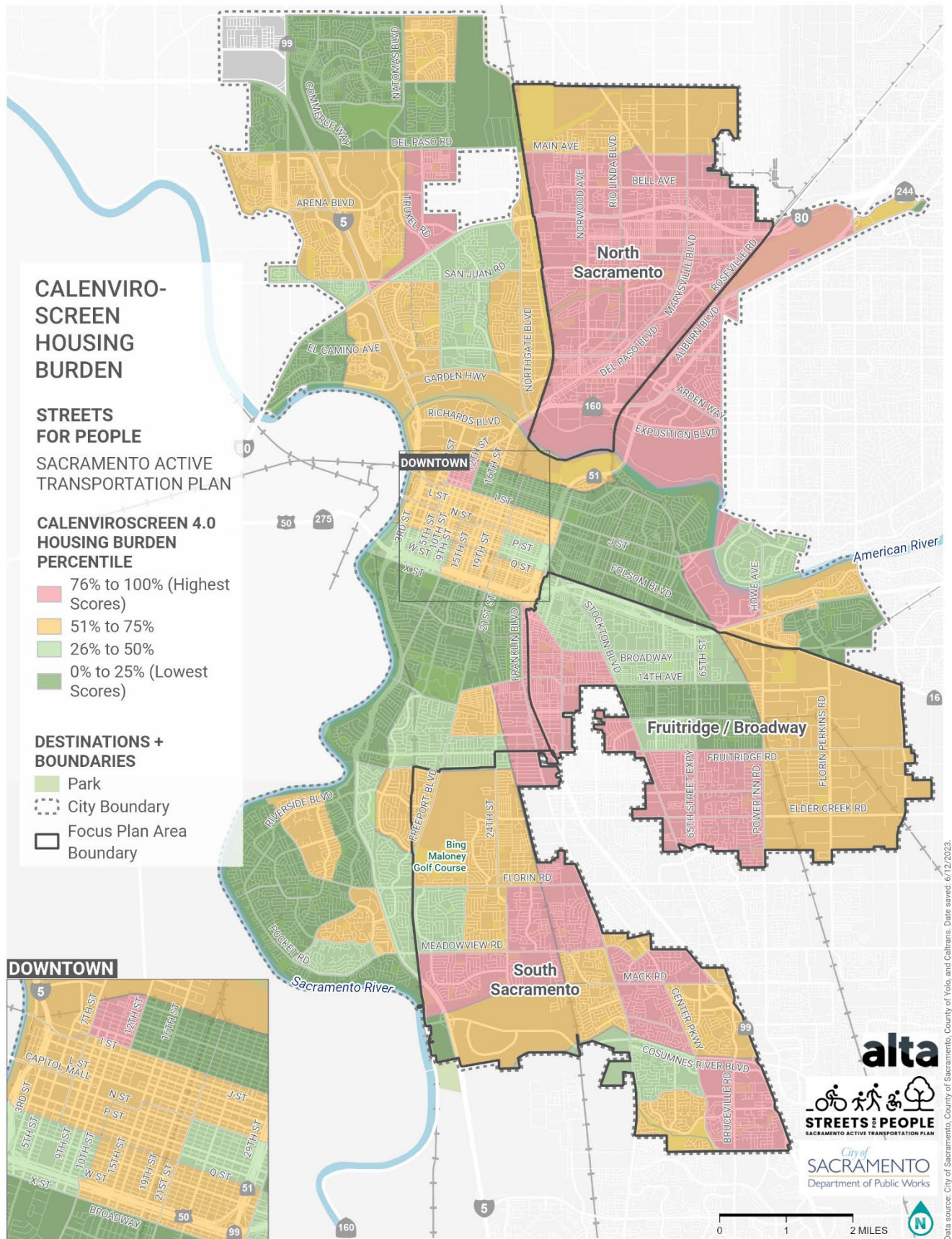
Land Use

Planning land uses and transportation together creates safer, more walkable environments. Designing local land uses with mobility in mind can create more opportunities for access to destinations, supporting the local economy. Diverse land uses with higher densities encourage walking or bicycling trips as destinations are closer together and easier to access. Conversely, segregated land uses that are low-density and further apart promote driving.

Downtown Sacramento and many of the adjacent neighborhoods, known as the Central City, have a grid-based street network. Downtown Sacramento consists of a mix of uses with high-density development, as shown in **Figure 7**. Adjacent neighborhoods in the Central City such as Midtown, Winn Park, Southside Park, and Boulevard Park also consist of a grid-based street network and a mix of housing types and uses.

In areas of the city developed since the 1950s, the street network becomes less connected with more winding streets that extend out from highways and major arterials. Land use is generally characterized by low-density residential and commercial development. Most major arterials in these outer neighborhoods are auto-oriented and consist of low-density commercial uses. The City of Sacramento aims to transform many of these corridors into higher-density, mixed-use, and transit-friendly environments.[4]

In addition to commercial and residential uses, Sacramento's open spaces and parks are scattered throughout neighborhoods and along the rivers, creeks, and canals. Industrial uses are primarily concentrated east of Power Inn Road along the eastern city boundary at the Florin Fruitridge Industrial Park. Employment centers and mixed-use centers outside Downtown include destinations such as the UC Davis Medical Center, California State University - Sacramento, Point West, Cal Expo, the commercial areas along Interstate 5 (I-5), and the Executive Airport. **Figure 7** on the next page provides a general summary of land uses throughout the city.

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[4] City of Sacramento 2035 General Plan.

Figure 7: City of Sacramento 2035 General Plan Land Use Map (Source: Sacramento 2035 General Plan)
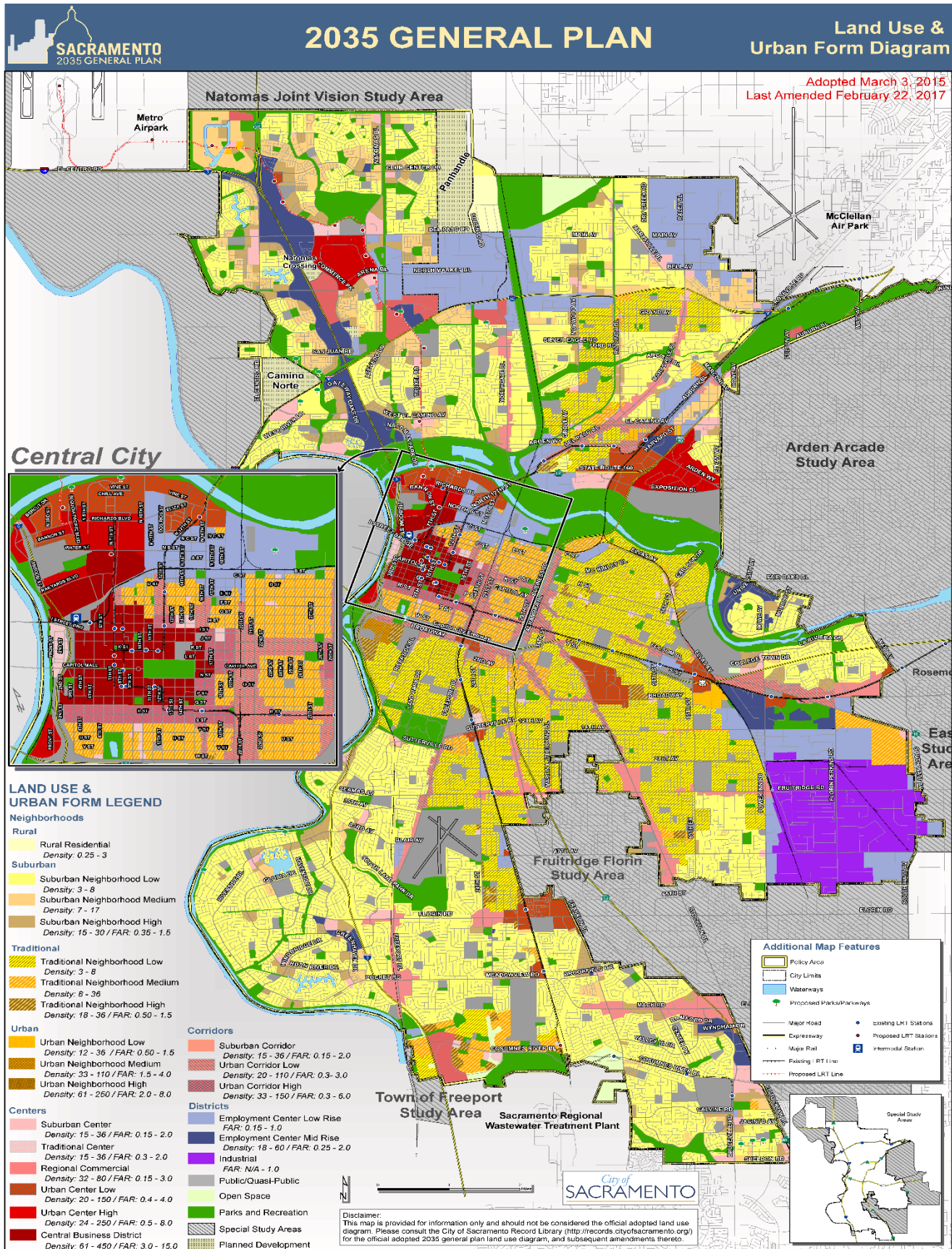
Commute Profile

The National Household Travel Survey data set provides insight into the transportation modes used for commuting to and from work[5]. However, this data is limited and offers just a small snapshot of the full transportation picture. To this end, it is important to consider the numerous trips that may be taken throughout a typical day that are not work-related and that may occur with a different mode. This Plan aims to address all trips.

Based on the latest data, around 15% of transportation trips in the Greater Sacramento Region (i.e., Sacramento, Roseville, Arden, Arcade) were commute-related trips. Of these, 68.9% were completed driving alone and 9.6% were via carpool.[6] Across the city, transit use accounts for approximately 2.9% of all commute trips. People walking (2.9%) and people biking (1.6%) to work account for around 4.5% of total commuting trips.

African American residents use public transit at nearly twice the rate compared to all other races: 5.6% compared to 2.9%. American Indian residents walk at a rate (5.5%) slightly higher than other races.[7] **Table 2** provides a complete breakdown of commute modes by race.

Table 2: City of Sacramento Commute to Work by Race/Ethnicity

Race	Drive Alone	Carpool	Transit	Walk	Bike/Taxi/ Motorcycle [8]	Work from Home
African American or Black	67.9%	9.3%	5.6%	3.1%	2.6%	11.6%
American Indian	74.8%	6.3%	2.7%	5.5%	2.6%	8.1%
Asian	69.4%	12.0%	2.9%	1.6%	1.7%	12.3%
Hispanic	71.2%	12.7%	2.5%	2.2%	2.4%	9.1%
Native Hawaiian	78.3%	8.1%	0.1%	2.1%	1.1%	10.3%
Two or More Races	68.2%	10.4%	2.1%	2.0%	3.3%	14.0%
Some Other Race	72.4%	14.9%	2.4%	1.6%	2.0%	6.7%
White	67.7%	7.1%	2.6%	4.0%	4.1%	14.5%
Total Average	68.9%	9.6%	2.9%	2.9%	3.1%	12.6%

Source: American Community Survey, 5-year Estimate (2017–2021)

It is important to note that approximately **one in ten (11.3%) of all trips** completed in the Greater Sacramento Region are active transportation trips according to the latest data from the National Household Travel Survey.

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[5] Federal Highway Administration. (2020). 2020 NextGen NHTS National Passenger OD Data, U.S. Department of Transportation, Washington, DC. Available online: https://nhts.ornl.gov/od/.

[6] American Community Survey, 5-year estimates (2017–2021).

[7] Ibid.

[8] NOTE: The numbers presented in this table have been aggregated for bike/taxi and motorbike as the American Community Survey combines these commute-to-work categories when presented by race/ethnicity.

4. Equity Profile

This section identifies the areas and populations within the city that have the greatest need for active transportation improvements due to disproportionate societal, environmental, health, and economic burdens compared to the city as a whole. Active transportation improvements can help address these burdens and begin to address decades of historical disinvestment.

Environmental Health–CalEnviroScreen 4.0

CalEnviroScreen 4.0[9] examines census tracts based on the combined indicators of pollution burden (i.e., exposures and environmental effects) and population characteristics (i.e., sensitive populations and socioeconomic factors). Pollution burden and population characteristics consist of a total of 21 statewide indicators ranging from low educational attainment to existing ozone levels (more information on each indicator is available from the Office of Environmental Health Hazard Assessment). Census tracts that score in the top 25th percentile are typically considered the most disadvantaged at the statewide level and have been targeted for greenhouse gas reduction funding through Senate Bill 535.[10] Overall scores for each census tract within the city are shown in **Figure 8**. Higher scores (depicted by red and yellow on the map) signify higher levels of pollution. **Figure 9** and **Figure 10** show the pollution burden and population characteristics scores, respectively.

Overall Score

The most disadvantaged census tracts—census tracts that score within the top 25th percentile overall—are located in the following areas:

- The **North Sacramento** focus plan area south of Main Avenue scores within the top 25th percentile overall. I-80 runs through this focus plan area, and the Sacramento McClellan Airport is nearby, just to the east of the focus plan area boundary.
- The **Fruitridge/Broadway** focus plan area has several locations that score within the top 25th percentile overall, including:
  - The northern half of the focus plan area east of Power Inn Road, which includes the Belvedere, Power Ridge, and New Brighton neighborhoods. While there are relatively few residences in this area, it does contain Granite Regional Park and the Power Inn Sacramento Regional Transit (SacRT) light rail station.
  - A significant portion of the Avondale and Fruitridge Manor neighborhoods between Power Inn Road to the east, Fruitridge Road to the north, and Stockton Boulevard to the west.
  - The South Oak Park neighborhood.

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[9] CalEnviroScreen 4.0 available online: https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40.
[10] Senate Bill 535 establishes minimum funding requirements and definitions for Disadvantaged Communities (DACs).

- The **South Sacramento** focus plan area is generally ranked as having a moderately high level of need based on the overall score; however, three locations within the focus plan area score within the top 25th percentile overall. These locations are along the eastern city boundary, in the South City Farms neighborhood, and in the small portion of the Parkway neighborhood north of Florin Road.
- Outside the three focus plan areas, portions of Downtown also score within the top 25th percentile overall highlighting areas of the city with the greatest need.

Figure 8: CalEnviroScreen 4.0 – Overall Score
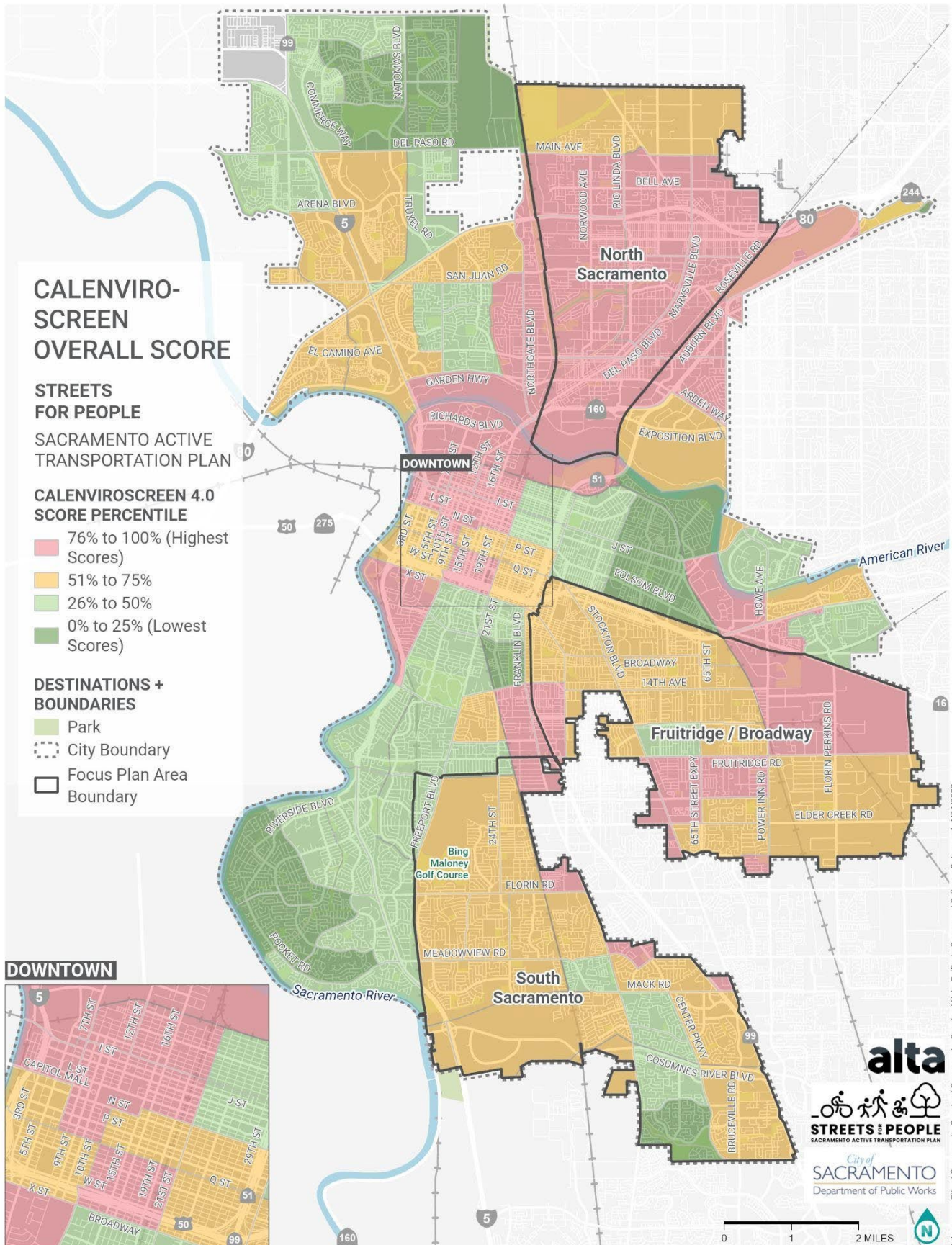
Pollution Burden

As shown in **Figure 10** on the next page, the locations with the highest pollution burden vary slightly from the overall CalEnviroScreen scores. Areas with high concentrations of industrial land uses typically experience increased air pollutants from a higher proportion of truck traffic, manufacturing emissions, and proximity to highways where a significant amount of air pollution is generated. The areas with the highest pollution burden include:

- The neighborhoods in the **Fruitridge/Broadway** focus plan area located east of Power Inn Road and the Union Pacific railroad tracks, including Elder Creek, Depot Park, Power Ridge, Belvedere, Florin Fruitridge Industrial Park, New Brighton, and Morrison Creek.
- The neighborhoods along I-50 in the **Fruitridge/Broadway** focus plan area such as Elmhurst, Fairgrounds, and Tahoe Park north of Broadway.
- The neighborhoods in and adjacent to the **North Sacramento** focus plan area near I-80 such as Ben Ali, Del Paso Park, and East Del Paso Heights.
- Outside the three focus plan areas, almost the entirety of Downtown west of 19th Street, southwest of Downtown along the Sacramento River, and north of Downtown below the American River. Some of the neighborhoods include Mansion Flats, Alkali Flat, Southern Pacific/Richards, Dos Rios Triangle, Southside Park, Old Sacramento, and Upper Land Park.

Figure 9: CalEnviroScreen 4.0 – Pollution Burden
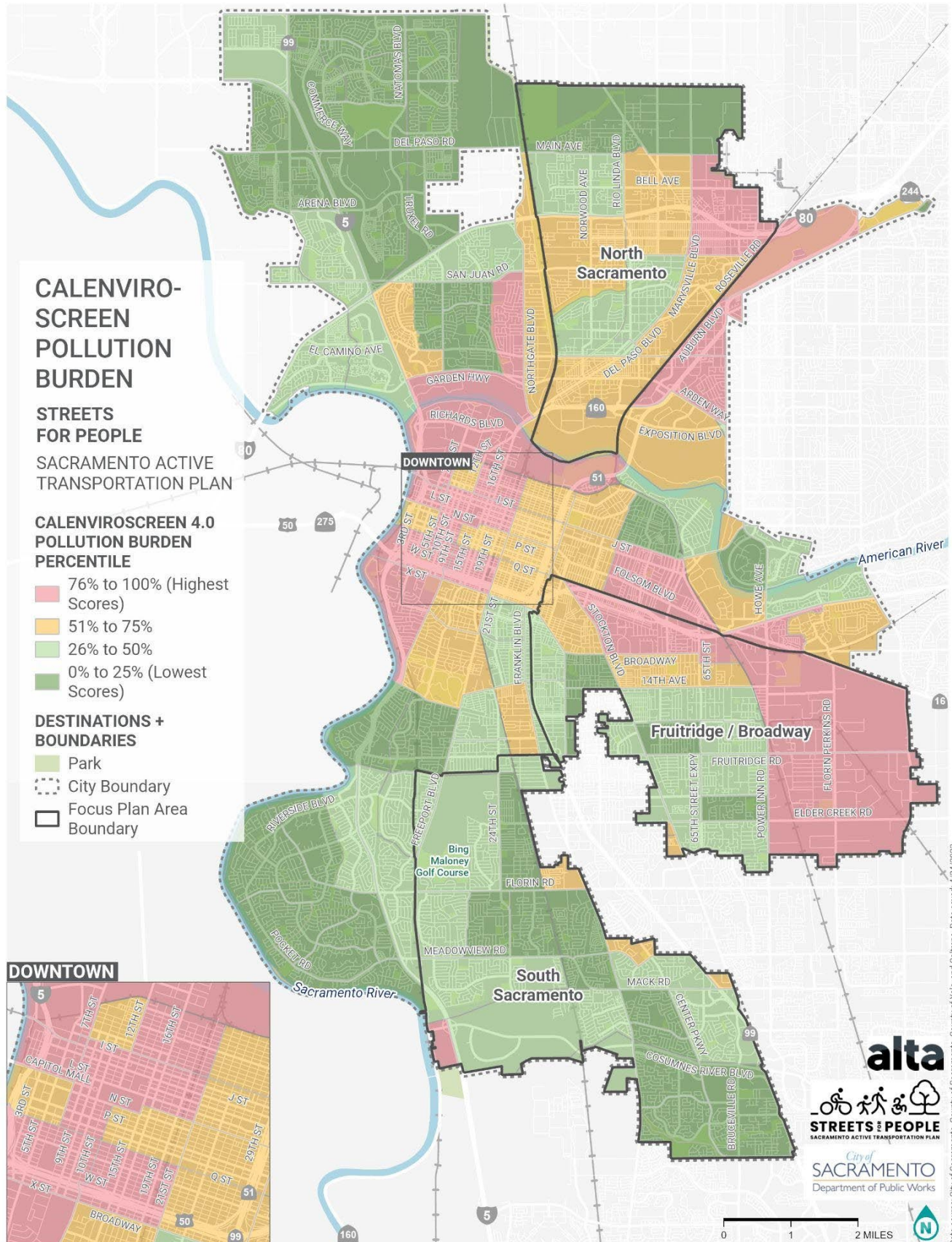
Population Characteristics

CalEnviroScreen uses a combined index for summarizing population characteristics. Population characteristics that result in increased vulnerability to pollution include the following indicators:

- High incidence of asthma
- High incidence of cardiovascular disease
- Low birth weight of infants
- Low educational attainment
- Housing burden[11]
- Linguistic isolation[12]
- Poverty[13]
- High unemployment rates

Almost all the North Sacramento and South Sacramento focus plan areas and most of the Fruitridge/Broadway focus plan area scored above the 75th percentile for population characteristics (**Figure 11**) that are the most vulnerable to pollution. Outside the three focus plan areas, the northwest area of Downtown and neighborhoods north of Downtown such as Alkali Flat, Southern Pacific/Richards, Dos Rios Triangle, South Natomas, Gateway Center, and Metro Center scored above the 75th percentile for population characteristics that result in increased vulnerability to pollution.

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[11] Based on data from Housing and Urban Development (HUD) Comprehensive Housing Affordability Strategy. This indicator identifies the percentage of households in a census tract that are both low income (making less than 80% of their county's median family income) and severely burdened by housing costs (paying greater than 50% of their income for housing costs).

[12] Based on data from the American Community Survey. Identifies percentage of limited English-speaking households, which are households where no one over age 14 speaks English well.

[13] Based on data from the American Community Survey. Identifies the percentage of the population with incomes less than two times the federal poverty level.

Figure 10: CalEnviroScreen 4.0 – Population Characteristics
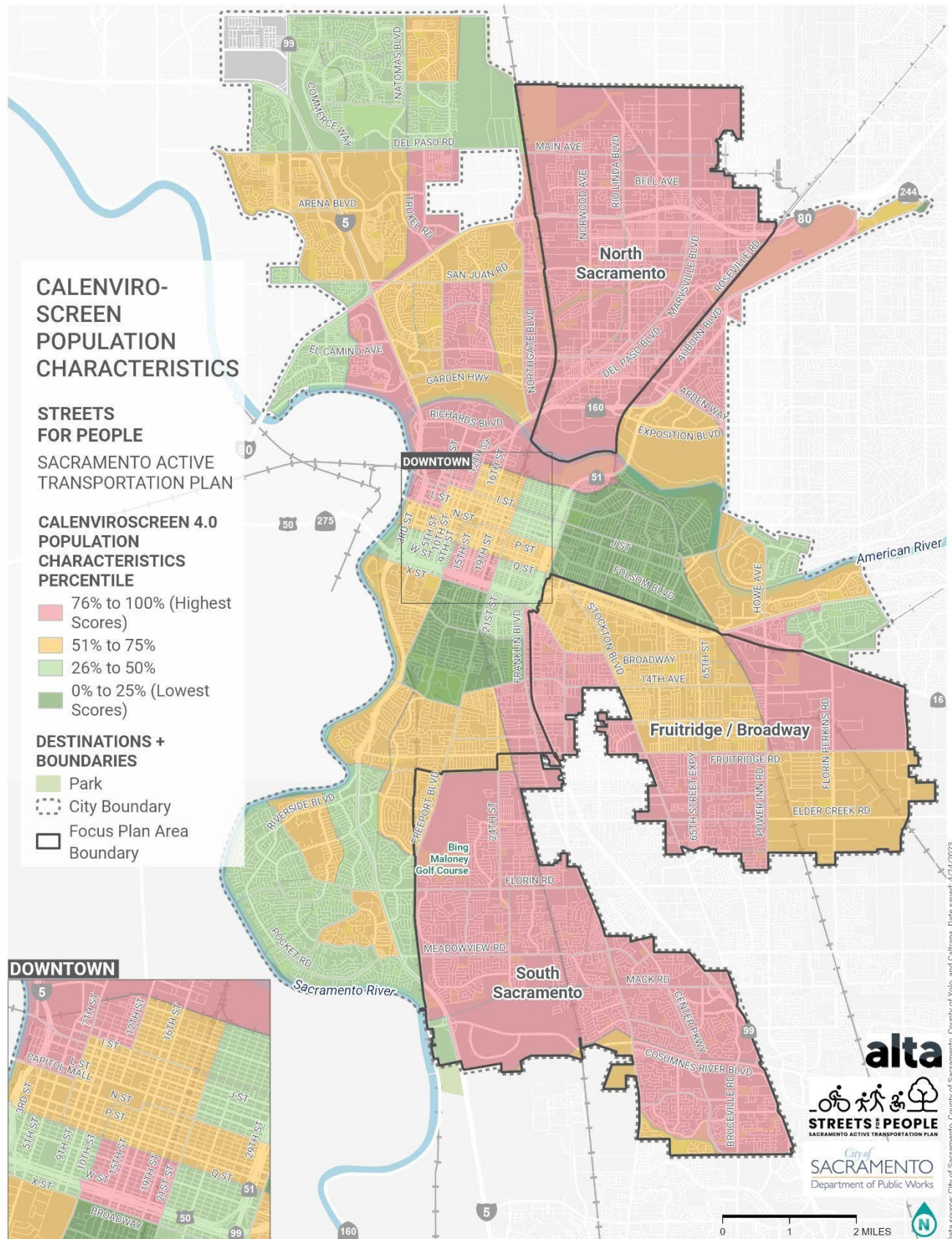
5. Public Health

Healthy Places Index

The Healthy Places Index, developed by the Public Health Alliance of Southern California, provides valuable insights into specific public policy and health considerations. The overall index is a composite of 25 individual metrics, which cover economics, education, social, transportation, healthcare access, neighborhood composition, housing, and environmental factors.[14] Two significant metrics related to public health and transportation include *access to parks* and *grocery store access*. Parks are important community assets and provide outdoor open space and places for recreation and exercise. Having access to a grocery store can improve residents' health by encouraging a better diet, reducing chronic disease, and lowering the risk of food insecurity.

~~Park Access~~ *Access to Parks*

There are parks distributed throughout the city including small neighborhood parks, larger community parks, regional parks, open space areas, and shared-use paths. **Figure 11** displays access to parks[15] for Sacramento residents. The following neighborhoods were identified as having the lowest levels of park access across the City based on the Healthy Places Index data:

- **North Sacramento Focus** plan area: Point West and neighborhoods adjacent to the Sacramento McClellan Airport such as East Del Paso Heights, Village Green, Parker Homes, and Raley Industrial Park
- **Fruitridge/Broadway Focus** plan area: Fruitridge Manor, Depot Park, Florin Fruitridge Industrial Park, and Morrison Creek
- The northwest area of Downtown, including Alkali Flat, Southern Pacific/Richards, and Dos Rios Triangle
- The Land Park neighborhood bordered by Vallejo Way to the north, I-80 to the south, 21st Street to the east and Riverside Boulevard to the west
- North City Farms
- Village 5
- Greenbriar

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[14] Healthy Places Index 3.0, Public Health Alliance of Southern California.
[15] Healthy Places Index measures Park Access as the percent of residents within ½ mile of a park greater than 1 acre, or a beach, open space, or coastline (HCI-Search (ca.gov))

Figure 11: Healthy Places Index – Park Access

PARK ACCESS - HEALTHY PLACES INDEX

STREETS FOR PEOPLE

SACRAMENTO ACTIVE TRANSPORTATION PLAN

PARK ACCESS PERCENTILE

- 0% to 25% (Less Healthy Conditions)
- 26% to 50%
- 51% to 75%
- 76% to 100% (More Healthy Conditions)

Park access percentile measures the percent of people living within a walkable distance (half-mile) of a park, beach, or open space.

DESTINATIONS + BOUNDARIES

- Park
- City Boundary
- Focus Plan Area Boundary

Grocery Store Access

Grocery store access is evaluated by the percentage of people in an urban area who live within a half mile radius from a grocery store. Using this threshold, the Central City—which includes neighborhoods such as Midtown, Winn Park, Newton Booth, Curtis Park, and Med Center—generally has the highest access to a grocery store. Outside these central neighborhoods, grocery store access is more scattered, which requires residents to travel farther, on average, to reach a grocery store, as noted in **Figure 12**.

The following neighborhoods were identified as having the lowest levels of grocery store access across the city:

- **Fruitridge/Broadway** focus plan area: New Brighton, Depot Park, Florin Fruitridge Industrial Park, Belvedere, Power Ridge, and Morrison Creek neighborhoods.
- **North Sacramento** focus plan area: The Robla neighborhood and neighborhoods adjacent to the Sacramento McClellan Airport such as East Del Paso Heights, Village Green, Parker Homes, and Raley Industrial Park.
- **South Sacramento** focus plan area: The Valley Hi/North Laguna neighborhood west of Center Parkway and the Meadowview neighborhood south of Florin Road and west of the Union Pacific railroad tracks.
- The northwest area of Downtown—including Alkali Flat, Southern Pacific/Richards, and Dos Rios Triangle—have low grocery store access. Other neighborhoods with low grocery store access are mostly concentrated in the northwest area of the city, including Metro Center, Gateway Center, Willowcreek, Village 5, Heritage Park, Natomas Park, Village 7, Natomas Creek, and Greenbriar.

Figure 12: Healthy Places Index – Grocery Store Access
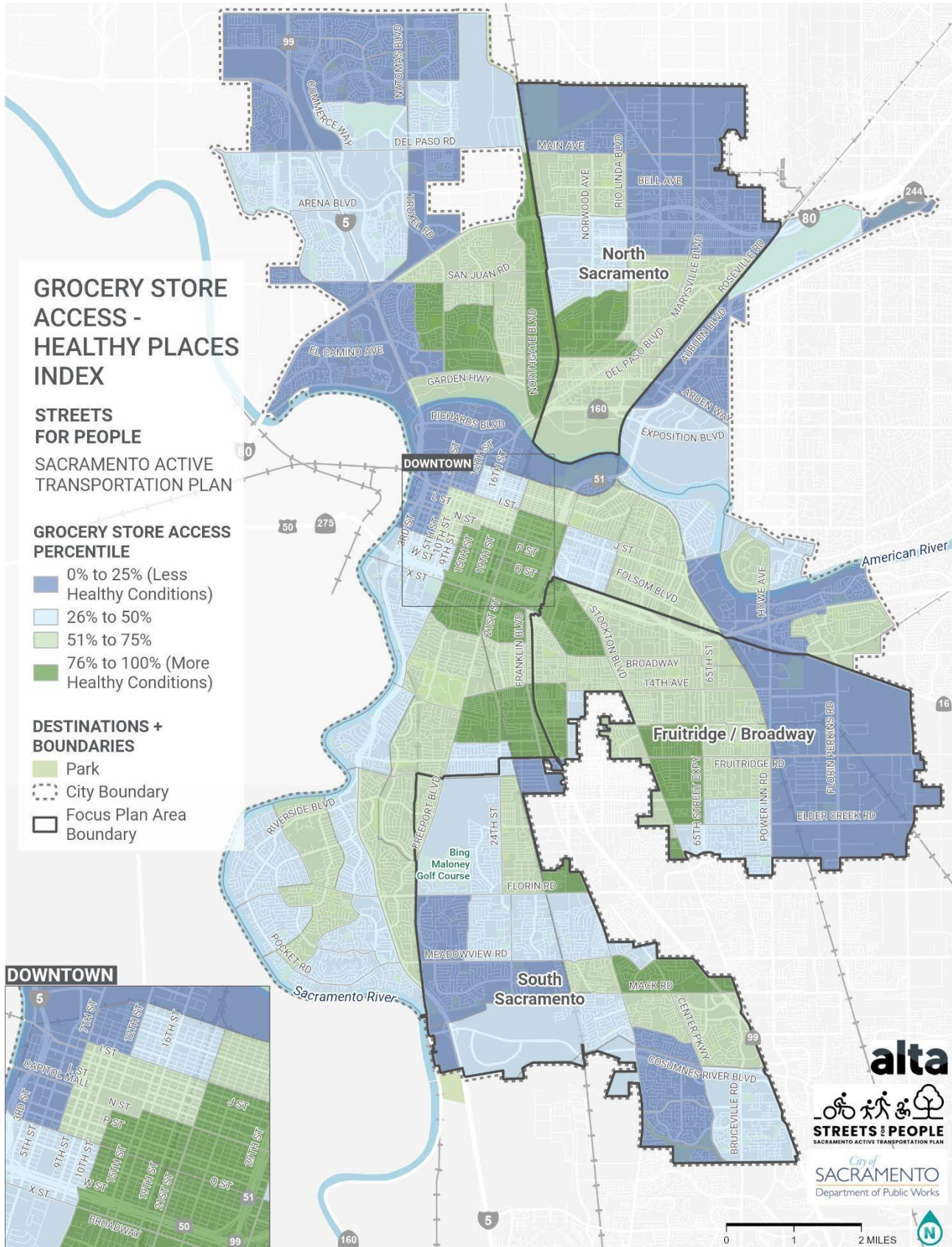
Access to Schools

Major roadways, especially those with a history of traffic collisions, act as barriers to school access regardless of proximity. While a child may live close to a school, major roadways can prevent active transportation trips to school that would otherwise be relatively short trips (up to a half mile). This analysis focuses on understanding the relationship between elementary, middle, and high schools including both public and private/charter schools, and the City-identified high injury network (HIN). Corridors on the HIN have the highest levels of fatal and serious injury collisions for people walking, bicycling, and driving in the city.[16] According to the Vision Zero Action Plan, 79% of all collisions occur on the HIN, which accounts for just 14% of the City's roadways.
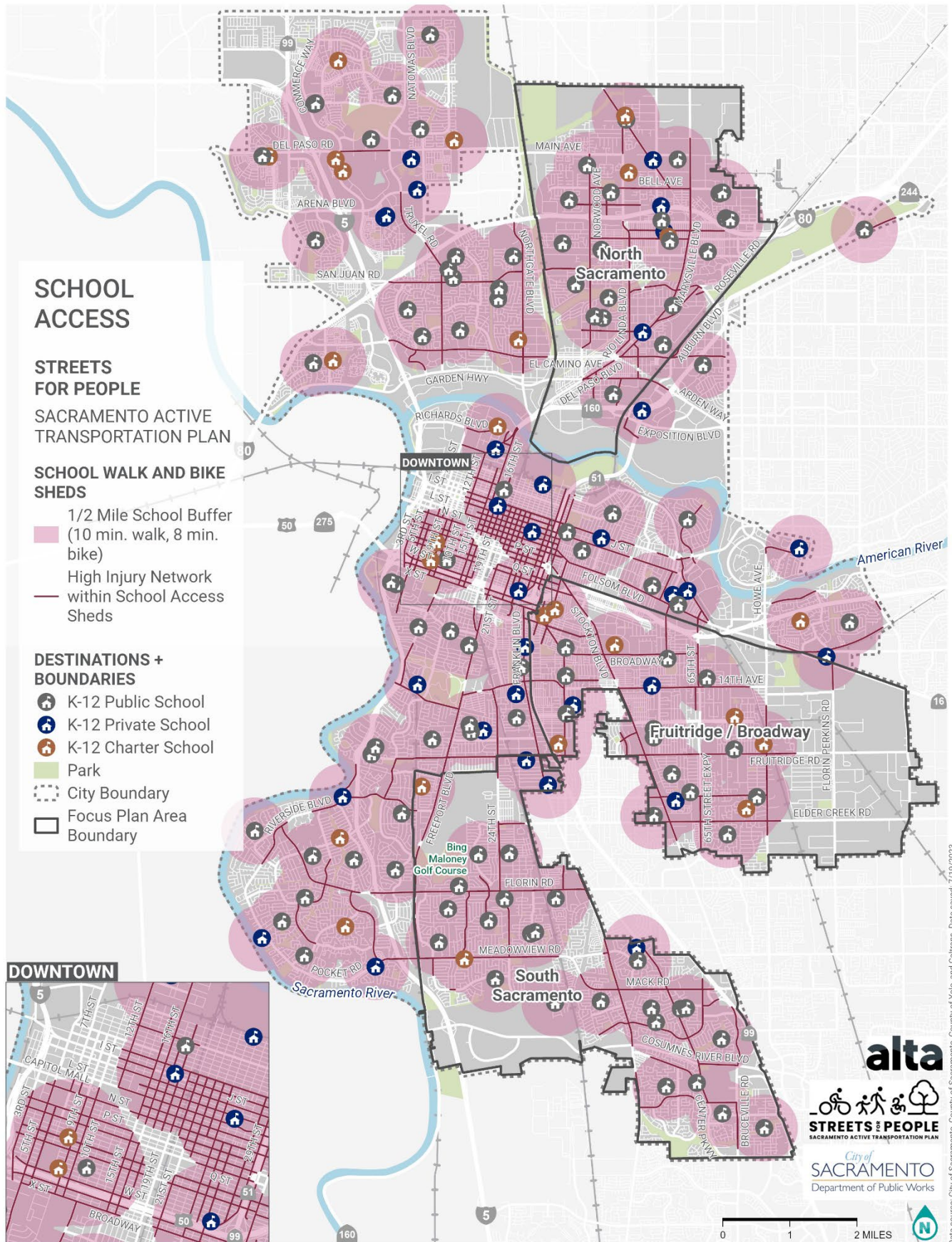
For this analysis, a distance of 0.5 miles was used as the reference for an approximate 10-minute walk or 8-minute bicycle ride.[17] **Figure 13** displays the areas (shown in pink) within a half-mile radius of public, private, and charter schools in Sacramento and all HIN segments within a half-mile of a school. As shown, an HIN corridor is located within a half-mile radius of most schools in Sacramento. Some portions of the city, such as the Natomas community, have very few HIN roadways within a half mile of a school. By contrast, nearly all the schools in the focus plan areas and the Central City are located near multiple HIN roadways; some schools, such as Washington Elementary School and William Land Elementary School, are surrounded by HIN roadways. Some of the HIN corridors near schools in the focus plan areas include:

- **Fruitridge/Broadway** focus plan area: Power Inn Road, Elder Creek Road, Fruitridge Road, Stockton Boulevard, 14th Avenue, 65th Street, and Broadway
- **South Sacramento** focus plan area: Bruceville Road, Cosumnes River Boulevard, Mack Road, Center Parkway, Meadowview Road, and Florin Road
- **North Sacramento** focus plan area: Marysville Boulevard, Rio Linda Boulevard, Norwood Avenue, and Bell Avenue

Ninety-four (56%) of the City's elementary, middle, and high schools are located within 1,000 feet of an HIN roadway. Furthermore, 35% of the HIN falls within Disadvantaged Communities.

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[16] More information regarding the High Injury Network and its development are included in the Sacramento Vision Zero Action Plan. Available online: https://www.cityofsacramento.org/Public-Works/Transportation/Programs-and-Services/Vision-Zero/Vision-Zero-Action-Plan.

Figure 13: High Injury Network and School Access

Heat Vulnerability Analysis

Heat Health Action Index

The Heat Health Action Index is composed of several variables that represent heat vulnerability. Heat vulnerability is a metric that gauges the relative effects of social vulnerability factors (e.g., race, education, age, income, and transportation), health factors (e.g., physical disability, asthma, and heart health), and environmental factors (e.g., land development, ozone, particulate matter, tree canopy, and urban heat islands) to gauge how vulnerable communities may be to relative changes in temperature and increases in the number of heat events. People with limited vehicle access who must walk, bike, or take transit tend to be more vulnerable to high temperatures; therefore, the availability or lack of shade can be major factors in opting to walk, bike, or access transit.

The index is based on a score of 0 to 100 with lower scores indicating less heat vulnerability. The average summer temperature in California is projected to increase by four to five degrees Fahrenheit by the year 2100.[18] As the average temperature increases, the frequency and severity of extreme heat events—periods of relatively hotter and more humid conditions that impact the social, health, and environmental factors listed in the preceding paragraph—will also increase in frequency and severity.

Figure 14 shows the Heat Health Action Index for the city which include:

- **North Sacramento focus plan area:** This area has the highest heat index ratings compared to the rest of the city. The highest index score within this focus plan area is 70, located in the neighborhoods of Willis Acres, Richardson Village, and Noralto.
- **Fruitridge/Broadway focus plan area**: the highest index score in this area is 67, located on the eastern edge of South Oak Park, in a tract shared with unincorporated Sacramento County. Other neighborhoods with high heat index scores in this focus plan area include Fruitridge Manor, Avondale, and the southern tip of Glen Elder.
- **South Sacramento focus plan area**: South City Farms and much of the Parkway and Valley Hi/North Laguna neighborhoods close to the eastern border of the city also have high heat index scores.
- Outside the three focus plan areas, the northwest area of Downtown and the adjacent neighborhoods to the north—including Alkali Flat, Southern Pacific/Richards, and Dos Rios Triangle—also have some of the highest heat index scores.

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[18] California's Fourth Climate Change Assessment - Summary Report (2018).

Figure 14: Heat Health Action Index

CLIMATE ANALYSIS - HEAT HEALTH ACTION INDEX

STREETS FOR PEOPLE

SACRAMENTO ACTIVE TRANSPORTATION PLAN

HEAT HEALTH ACTION INDEX

- < 30 (Lower Heat Vulnerability)
- 31 - 40
- 41 - 50
- 51 - 60
- > 59 (Higher Heat Vulnerability)

DESTINATIONS + BOUNDARIES

- · City Maintained Trees
- Park
- City Boundary
- Focus Plan Area Boundary

*City Maintained Trees does not include all tree cover.
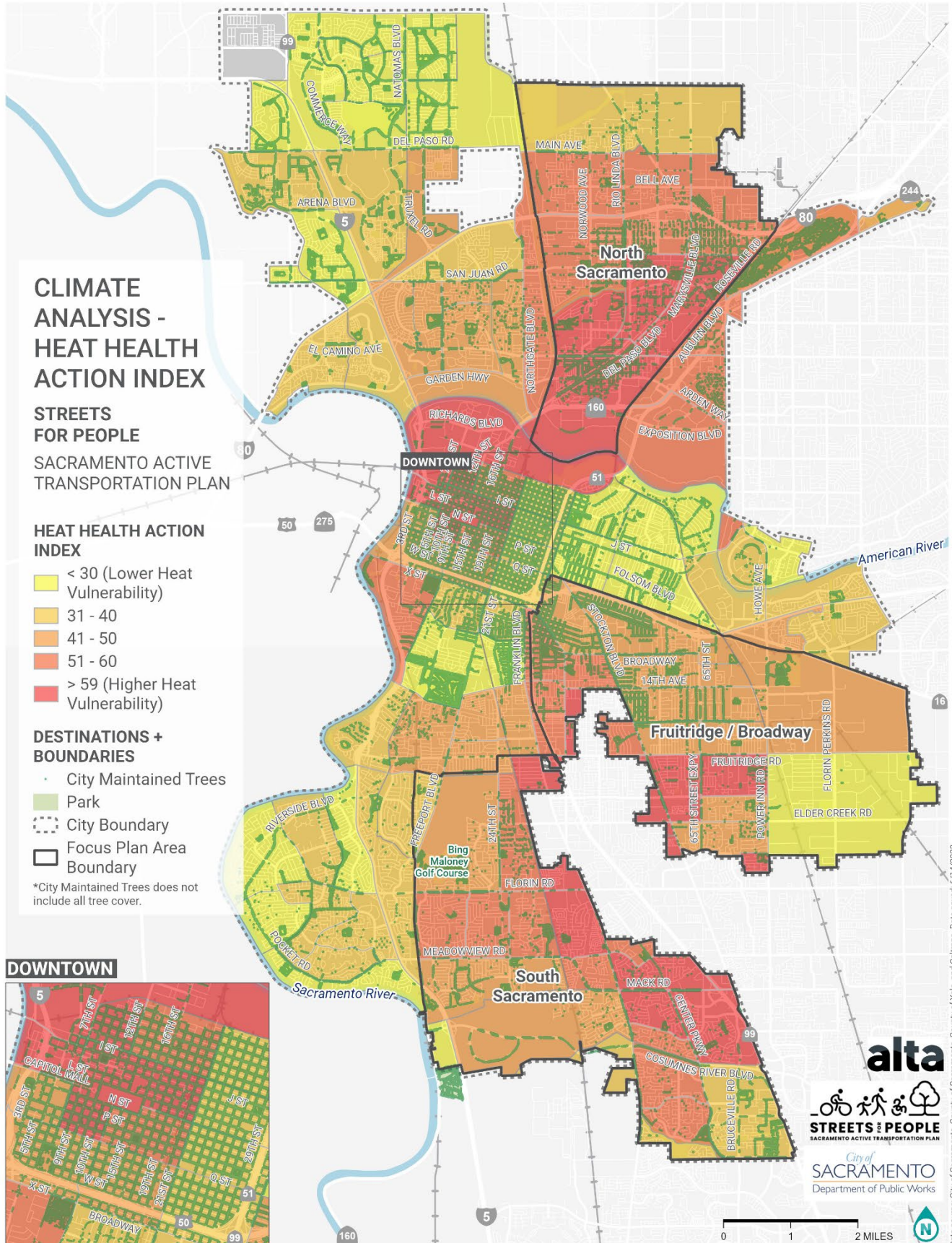
Tree Canopy Cover

The tree canopy analysis examines how much of a given area is covered by tree shade. **Figure 15** provides the results of this analysis. It is important to note that this map highlights the locations of City-maintained trees only and is not representative of every tree within the city. Additionally, the California Heat Assessment Tool (CHAT)—a tool funded by the California Natural Resources Agency to better understand the dimensions of heat vulnerability—forecasts areas expected to have more than six annual extreme heat events, which will have a considerable impact on the health of residents. The analysis projected more than six annual extreme heat events in all North Sacramento focus plan area census tracts (shown in red in **Figure 15**).

Downtown and the Central City neighborhoods adjacent to Downtown have the highest overall tree cover. Some of these neighborhoods include Land Park, Curtis Park, Marshall School, East Sacramento, and River Park.

The average tree canopy coverage across the City of Sacramento is 13.5%, which is below the statewide average of 19% tree canopy coverage in urban areas.[19] The focus plan areas have lower tree coverage than the city average overall, especially in industrial areas. The following provides a brief analysis of tree canopy coverage in the focus plan areas:

- **Fruitridge/Broadway** focus plan area: Only one census tract has more than 20% tree canopy cover. No tracts south of Fruitridge Road and east of Stockton Boulevard have more than 9% tree canopy cover. Based on CHAT analysis, there are no areas within Fruitridge/Broadway that are projected to have more than six annual extreme heat events.
- **North Sacramento** focus plan area: None of the census tracts have more than 20% tree canopy cover. Only one census tract north of I-80 has more than 9% tree canopy cover. CHAT analysis indicates that the entire North Sacramento focus plan area will experience more than six annual extreme heat events.
- **South Sacramento** focus plan area: No census tract has more than 15% tree canopy cover, and some have as little as 4% coverage. CHAT analysis projects more than six annual extreme heat events within the Valley Hi/North Laguna neighborhood.
- Outside the three focus plan areas, the Natomas neighborhood had tree canopy coverage levels as low as 6%.

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[19] US Department of Agriculture, US Forest Service, "Urban Tree Canopy in California." Available online:
https://www.fs.usda.gov/detailfull/r5/communityforests/?cid=fseprd647442&width=full.

Figure 15: Tree Canopy Cover
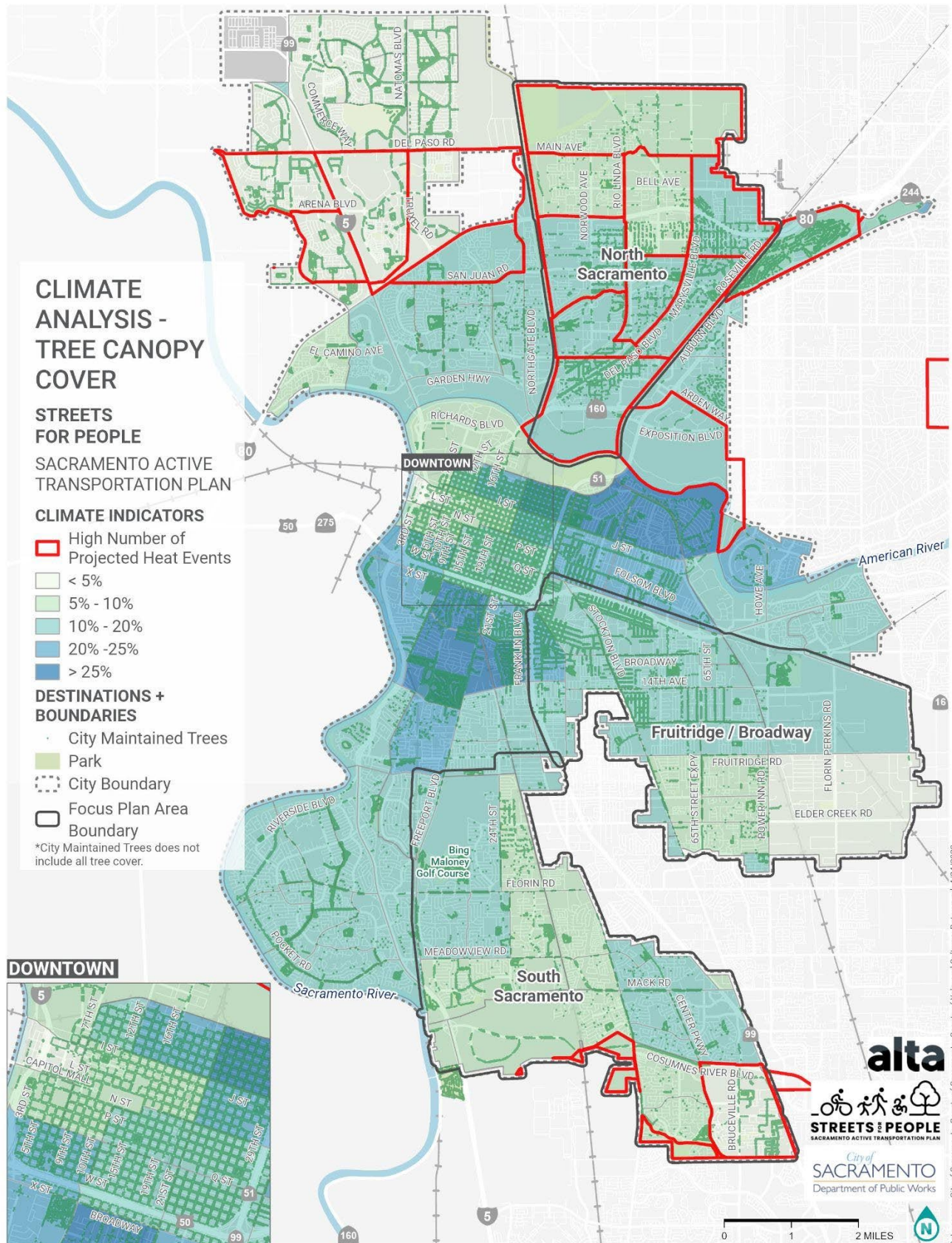
Bivariate Climate Analysis

A bivariate analysis evaluated where areas with high heat vulnerability overlap with low tree canopy coverage. This analysis combined projected heat events and existing tree canopy cover data. The results, included in **Figure 16**, indicate that the focus plan areas are more susceptible to heat vulnerability, particularly North Sacramento. The neighborhoods on either side of I-5 in northwest Sacramento—including Sundance Lake, RP - Sports Complex, Gateway West, Natomas Crossing, and Village 5—also have some of the highest heat vulnerability in the city. Heat vulnerability is an important metric for understanding climate resiliency and identifying locations for tree canopy expansion through the inclusion of street trees or shade trees with public works projects.

The focus plan areas show the following results:

- **North Sacramento** focus plan area: Communities north of Main Avenue have the highest heat vulnerability (i.e., experience the most impacts from climate change) and represent the biggest opportunity for tree canopy improvement within the North Sacramento focus plan area.
- **Fruitridge/Broadway** focus plan area: Communities south of Fruitridge Road and west of Power Inn Road have the highest heat vulnerability (i.e., experience the most impacts from climate change) and represent the biggest opportunity for tree canopy improvement within the Fruitridge/Broadway focus plan area.
- **South Sacramento** focus plan area: The southeastern corner of the focus plan area in the Valley Hi/North Laguna neighborhood has the highest heat vulnerability (i.e., will experience the most impacts from climate change) and represents the biggest opportunity for tree canopy improvement within the South Sacramento focus plan area.

Figure 16: Bivariate Climate Analysis
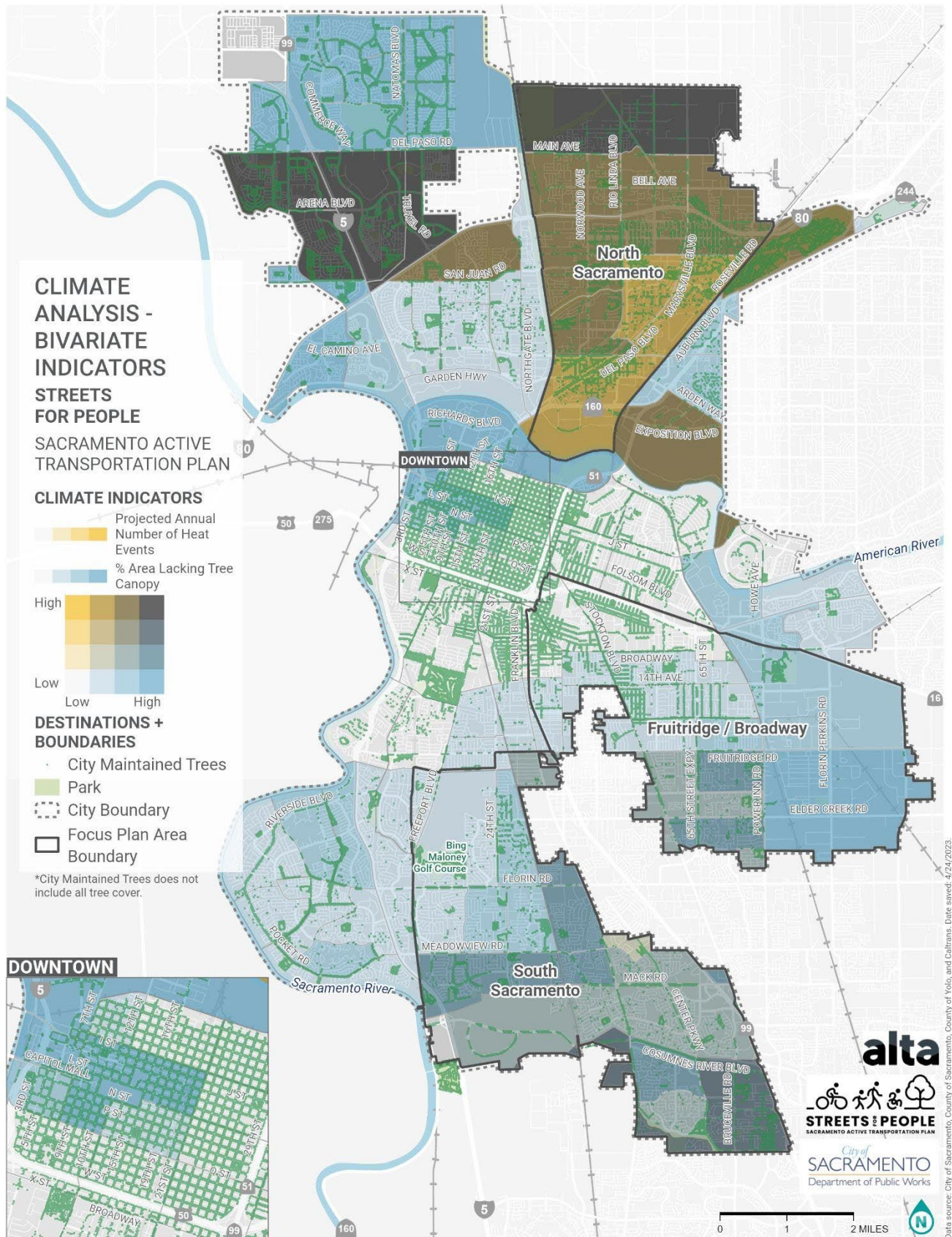
6. Transportation Profile

Sacramento's street network includes large arterials, collectors, highways, major infrastructure facilities, and local roadways. I-80, US Highway 50, US Highway 99, and I-5 are main thoroughfares that host high volumes of local and through vehicular traffic. Due to limited access and crossing points, highways and interstates often act as barriers to people using active modes of transportation. Railroad tracks and the SacRT light rail tracks throughout the city, especially those which parallel the US Highway 50 and I-80 corridors, also act as barriers.

Street types and networks vary throughout different parts of the city. While the Central City contains a dense gridded street network, newer development areas often contain more sprawled local roadways and neighborhood cul-de-sacs. The existing street and highway network can be seen in **Figure 17**.

Walking Facilities

Walking facilities throughout the city include sidewalks, shared-use paths (Class I), and intersection or mid-block crossing facilities. A map of the existing sidewalks is shown in **Figure 18.** Throughout the city, there are almost 80 miles of shared-use paths, the majority of which are located along the American River and Sacramento River. Most streets in Sacramento have sidewalks, but some areas lack walking facilities, including northeast Sacramento, portions of Elder Creek Road and industrial areas in Fruitridge/Broadway, and Freeport Boulevard and Cosumnes River Boulevard in South Sacramento. Areas highlighted in red are places that lack existing sidewalks; areas shown in dark gray lack data on the presence of sidewalks.

Figure 19 denotes the location of currently inventoried marked crosswalks throughout the City as well as the locations for signals activated by a person walking including flashing pedestrian beacons, pedestrian signals, pedestrian hybrid beacons (HAWK), and rectangular rapid flashing beacons (RRFB). Crossing facilities for people walking provide a clearly defined location for people to cross the roadway while outside a vehicle. These facilities are critical to creating safe crossing opportunities either at intersections or at mid-block locations. The Downtown area of Sacramento has crosswalks and signals on a significant portion of major intersections. Outside the Downtown area, marked crosswalks and pedestrian signals are largely concentrated on major arterial roadways and near elementary and middle schools.
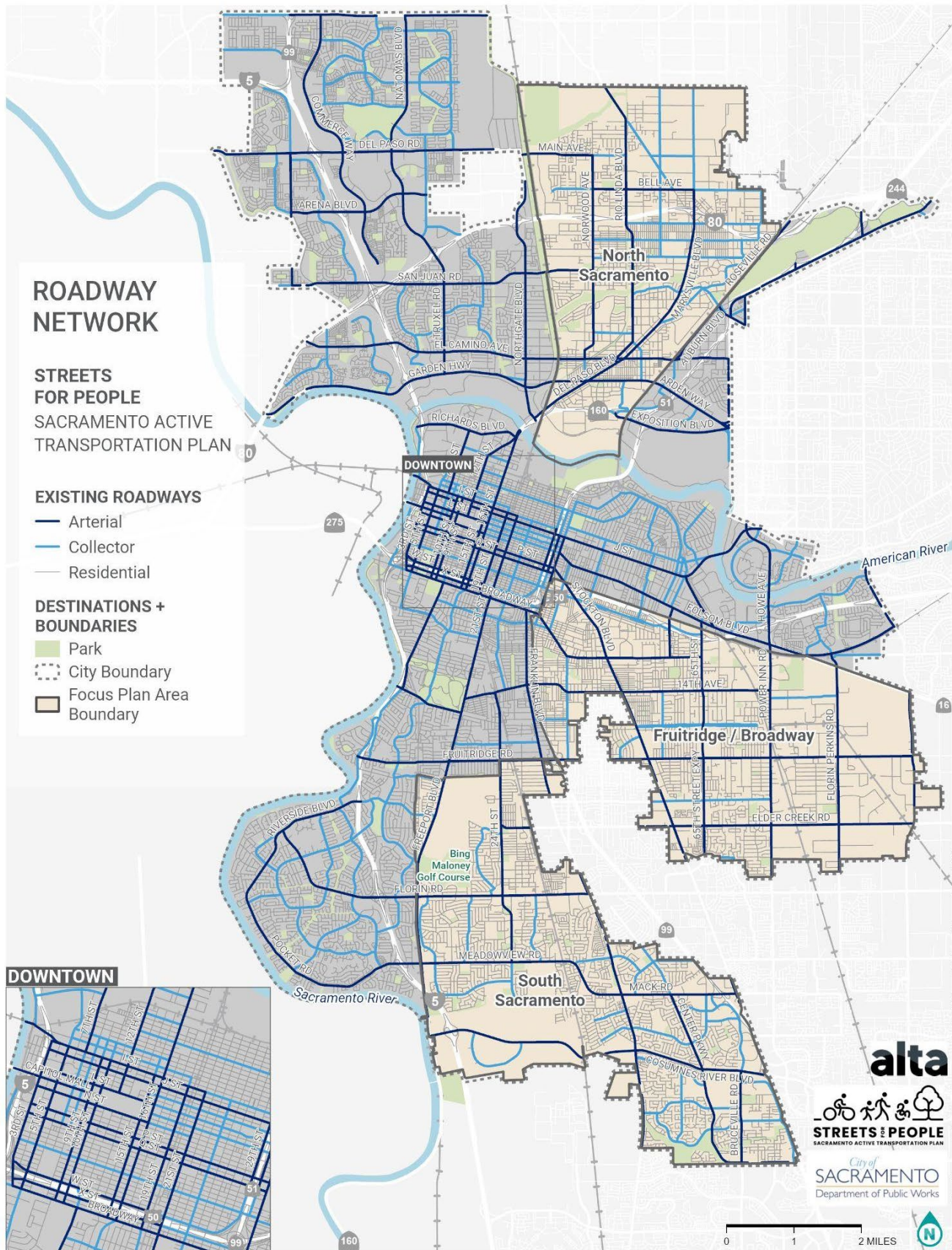
Figure 17: Existing Street Network

Figure 18: Existing Sidewalk Network
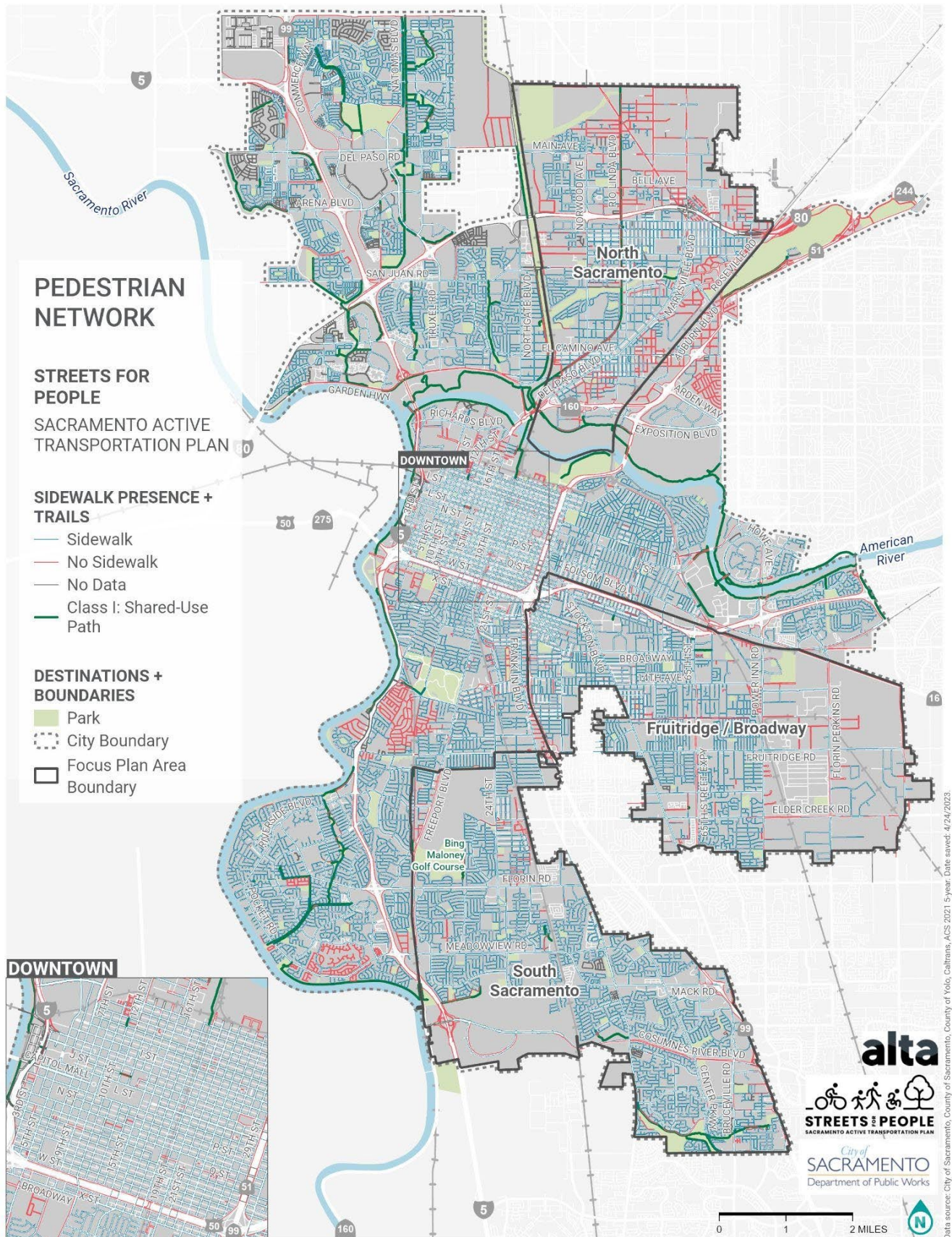
Figure 19: Existing Inventoried Marked Crosswalks and Crossing Facilities
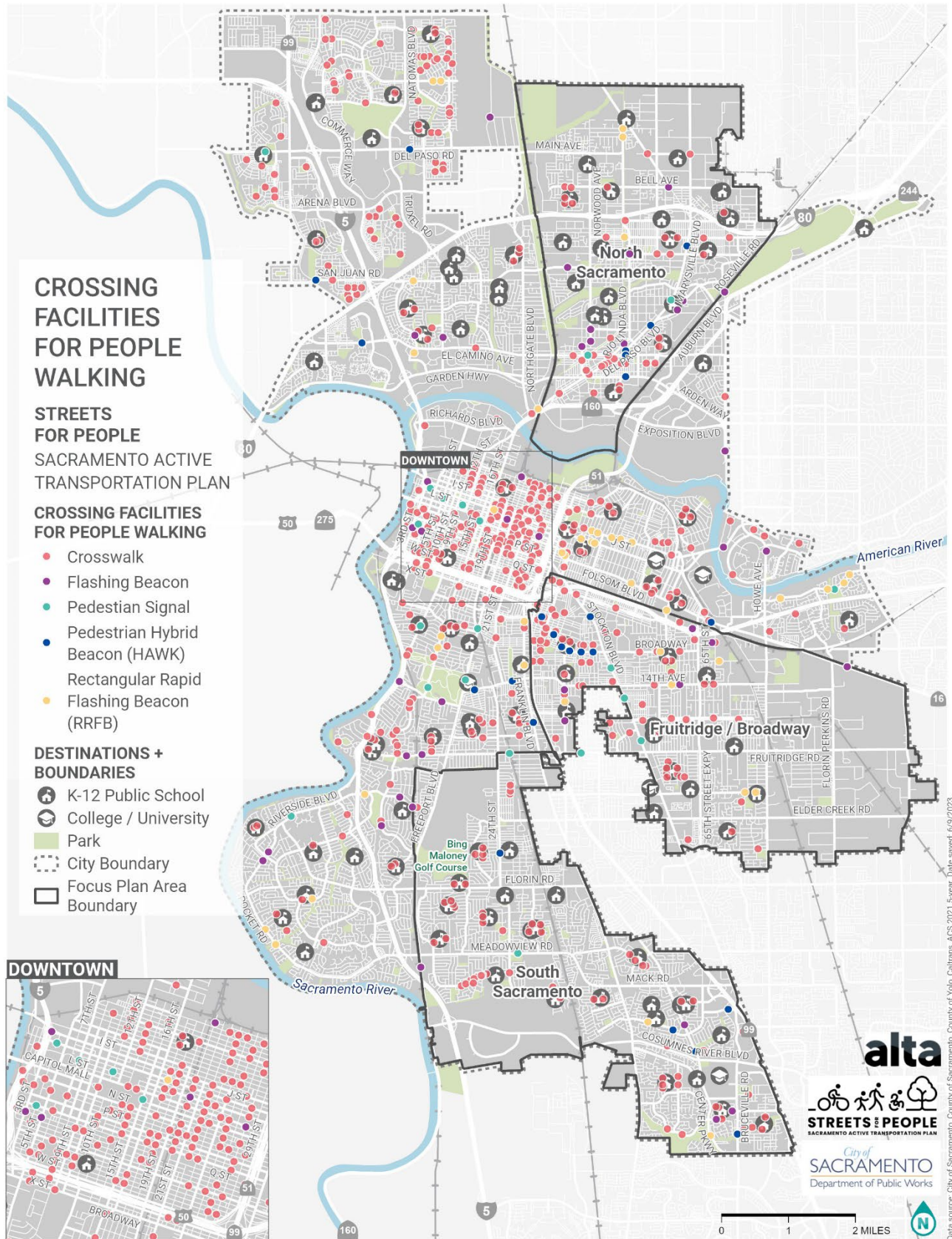
Bicycling Facilities

The City of Sacramento contains 427.2 miles of existing bicycle facilities, shown in **Figure 20** and **Table 3**. These facilities primarily consist of bicycle lanes, bicycle routes, and shared-use paths. Regional trails that provide long-distance connections across the city include:

- Sacramento River Parkway
- Sacramento Northern Parkway
- Walter S. Ueda Parkway
- Garden Highway Bikeway
- Jedediah Smith Trail
- Victory Promenade

There are dedicated routes for biking that connect to many areas within the city; however, bikeways are not consistently connected or continuous along all corridors. Shared-use paths, separated bikeways, and buffered bike lanes are considered the most comfortable bike facilities for a wide range of ages and abilities. Under existing conditions, most of the city's long-distance bikeway connections consist of bike lanes and bike routes. These offer minimal to no protection from vehicular traffic and fail to serve people with a low-tolerance for traffic stress. Barriers to biking also include river crossings, railroad crossings, and major highways such as I-5, I--80, and US Highway 50.

Table 3: Existing Bicycle Facilities in the City of Sacramento

Bikeway Class	Mileage
Shared-Use Path (Class I)	78.7
Bike Lane (Class II)	257.2
Buffered Bike Lane (Class IIB)[20]	7.6
Bike Routes (Class III)	81.5
Separated Bikeway (Class IV)	2.2
Total	**427.2**

Bikeway classification based on Caltrans HDM Chapter 1000.

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[20] The California Highway Design Manual does not currently distinguish between buffered bike lanes or standard bike lanes, however, the City intends to designate them separately.

Figure 20: Existing Bikeway Network

ROADWAY AND BICYCLING NETWORKS

STREETS FOR PEOPLE

SACRAMENTO ACTIVE TRANSPORTATION PLAN

EXISTING BIKEWAYS
— Shared-Use Path
— Bike Lane
— Buffered Bike Lane
— Bike Route
— Separated Bikeway

DESTINATIONS + BOUNDARIES
Park
City Boundary
Focus Plan Area Boundary
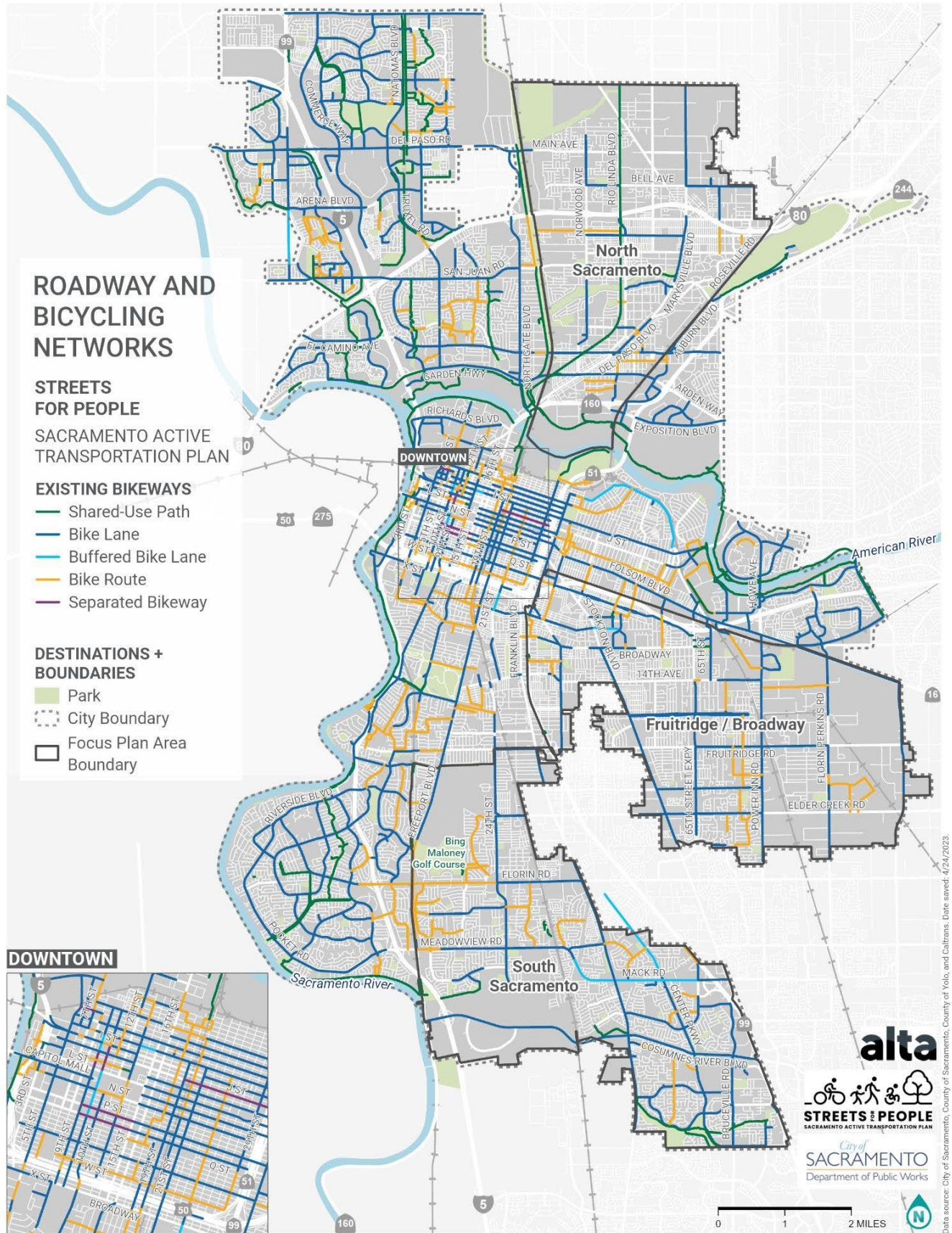
Transit Network and Facilities

The City of Sacramento is served by Sacramento Regional Transit (SacRT) light rail and buses. The network includes 52 light rail stations, 30 bus and light rail transfer centers, and 22 park-and-ride lots. Three light rail lines (blue, gold, and green) connect riders to Sacramento's Downtown from the southern, eastern, and northeastern edges of the city. A total of 58 bus lines serve the city, including local neighborhood lines, cross-city routes, and regional routes connecting to surrounding jurisdictions such as Rancho Cordova, Davis, and Citrus Heights. A map of the bus and light rail routes serving the city can be seen in **Figure 21**. SacRT allows up to four bicycles per car in its light rail service, and 100% of its bus fleet is equipped with racks that hold either two or three bicycles at a time. The average weekday total ridership per bus stop within the City of Sacramento is shown in **Figure 22**. High bus ridership tends to cluster within the city's Downtown, as well as along several arterial roadways such as Florin Road, Stockton Boulevard, Truxel Road, and Broadway. Of the City's 10 busiest bus stops shown in **Table 4**, four are co-located with light rail stations, three at commercial destinations (the Arden Fair Mall, Arden Towne Center, and the Promenade Center) two in Downtown, and one at California State University - Sacramento.

Table 4: Top 10 Busiest Bus Stops Citywide

Stop Location	Average Weekday Boardings & Alightings[21]
University/65th Street Light Rail Station	2,389
Watt Avenue/I-80 Light Rail Station	2,202
California State University - Sacramento (State University Drive & J Street)	2,092
Arden/Del Paso Light Rail Station	1,385
Arden Fair Mall	1,055
Florin Towne Center	1,026
Marconi/Arcade Light Rail Station	988
9th Street and L Street	876
The Promenade Center	406
8th Street and J Street	398

The Sacramento Valley Amtrak station provides connections to four different Amtrak routes and is located in downtown Sacramento on the corner of 5th Street and I Street. This station connects visitors, residents, and commuters traveling regionally and across the country. The station is a key link for both visitors and commuters and in 2022 was the second busiest in California and fourteenth busiest in the nation with a total of 456,647 boardings and alightings.[22] The level of ridership was nearly twice as high prior to 2020 with an average of 1,070,920 boardings and alightings between 2013 and 2019.[23] This station is highlighted in **Figure 21** below with an icon showing a white train surrounded by a blue circle.

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[21] SacRT. September-December 2019 ridership data.
[22] Bureau of Transportation Statistics, Amtrak Ridership, (2022)
[23] Bureau of Transportation Statistics, Amtrak Ridership, (2013 – 2019)

Figure 21: SacRT Bus and Light Rail Routes
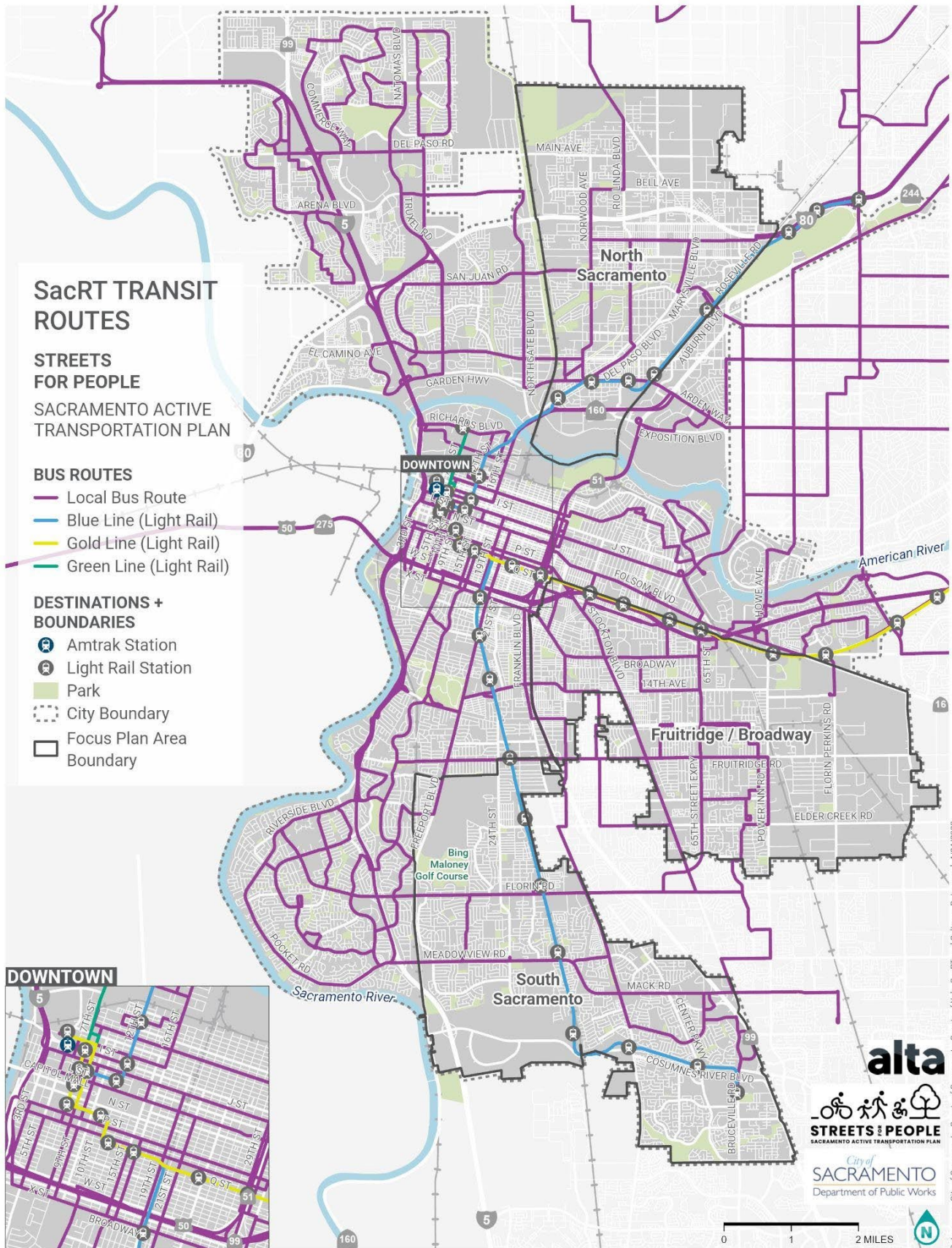
Figure 22: SacRT Bus Ridership
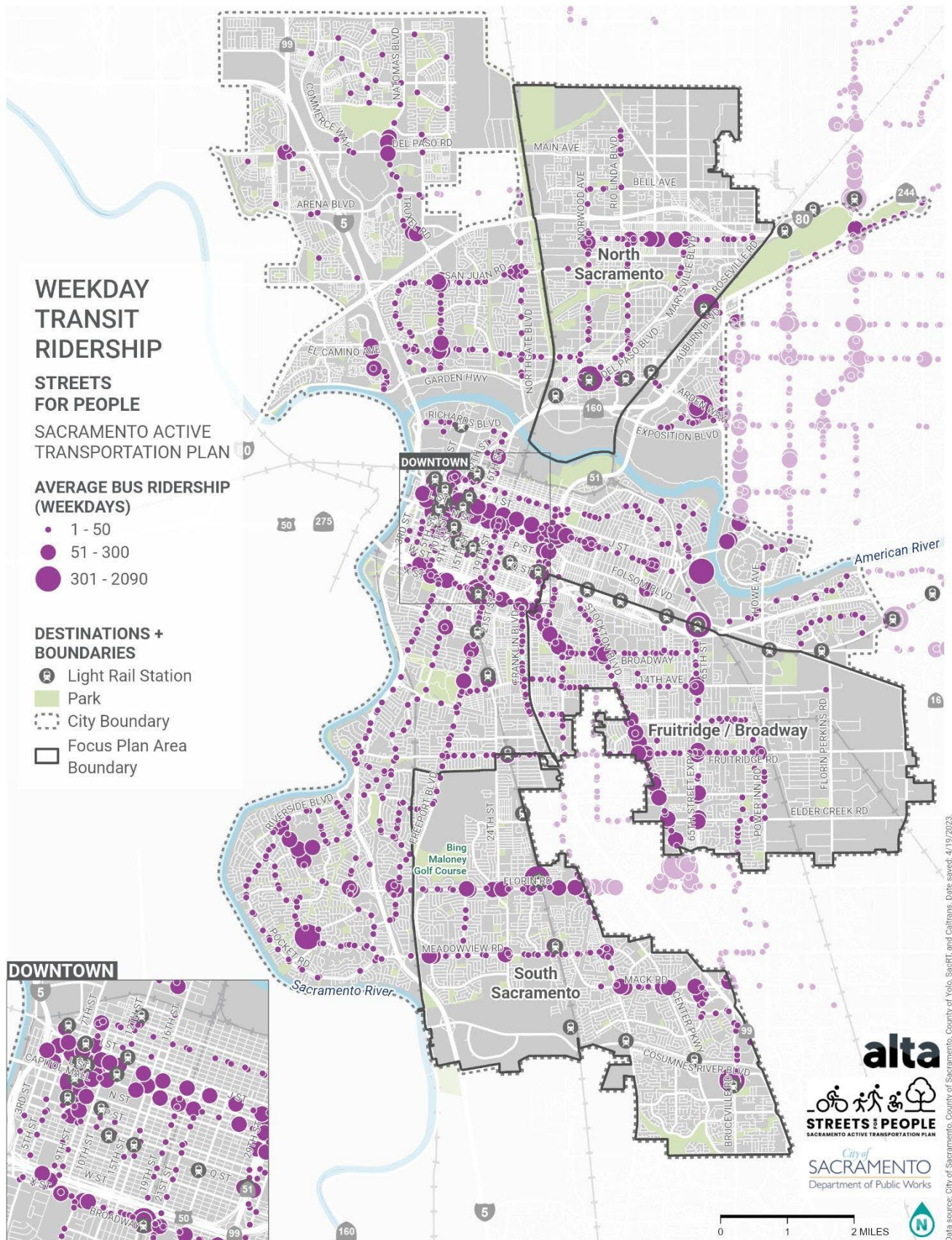
7. Collision Analysis and High-Injury Network Comparison

Collision Trends

Over the five-year period between 2016 and 2020, collisions involving people walking represented a high proportion of total fatal and serious injury (known as KSI, or "killed or seriously injured") collisions across the City of Sacramento, as highlighted in **Figures 23** through **25**.[24] People walking were victims of 27% of all fatal collisions within the city in 2016; this increased to 51% in 2020. Across this five-year period, people walking were victims of nearly 38% of all fatal collisions and 23% of all serious injury collisions. This indicates that people walking are overrepresented in the most serious collision types compared to all collisions causing an injury. As shown in **Figures 23** through **25**, people walking represented approximately 7% of all collisions resulting in an injury from 2016 to 2020. Comparatively, the total number of KSI collisions per year involving people walking has generally increased between 2016 and 2020, growing from 52 in 2016 to 63 in 2020.

Figure 23: Collisions by Mode – All Injuries (2016–2020), SWITRS
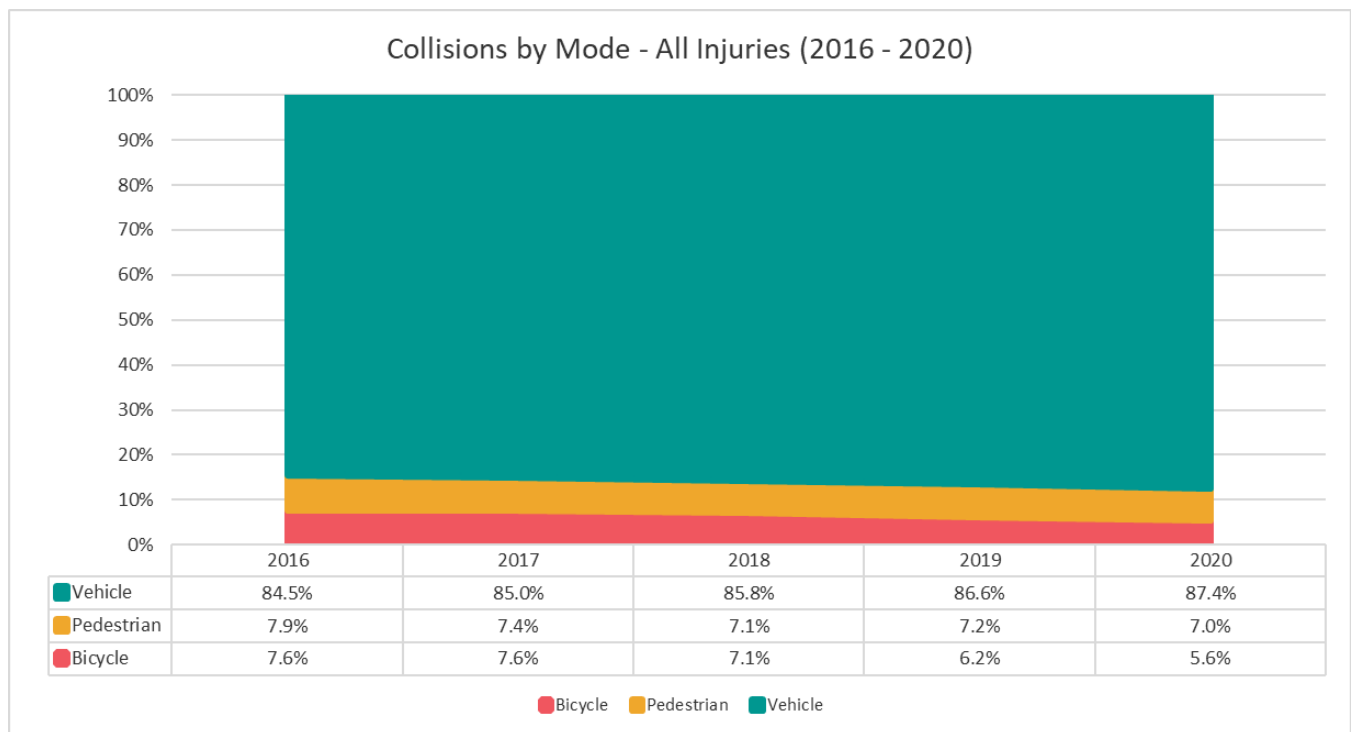
People biking have also been overrepresented in KSI collisions over the five-year period (2016 to 2020). People biking accounted for 11.6% of all KSI collisions but just 6.8% of all collisions resulting in an injury (**Figure 23** through **Figure 25**). Despite people biking being overrepresented in KSI collisions, KSI collisions involving people bicycling have declined by nearly 50% in the City of Sacramento over the past five years from 33 in 2016 to 16 in 2020.

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[24] Statewide Integrated Traffic Records System (SWITRS), 2016–2020.

Figure 24: Collisions by Mode – Serious Injury (2016–2020), SWITRS

Collisions by Mode - Serious Injury (2016 - 2020)

	2016	2017	2018	2019	2020
Vehicles	60.4%	58.1%	67.1%	67.2%	70.7%
Pedestrian	24.5%	24.4%	23.7%	20.8%	21.5%
Bicycle	15.1%	17.5%	9.2%	12.0%	7.8%

● Bicycle   ● Pedestrian   ● Vehicles
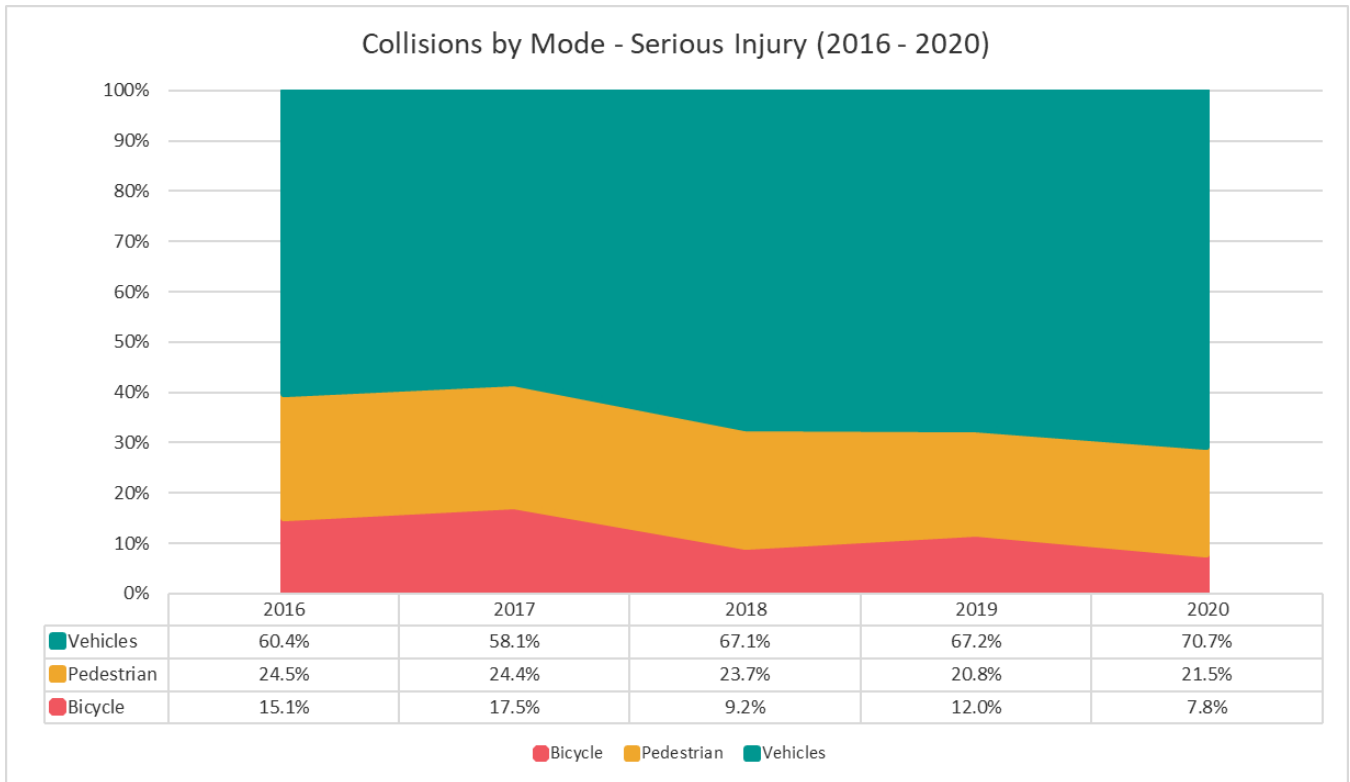
Figure 25: Collisions by Mode – Fatal (2016–2020), SWITRS

Collisions by Mode - Fatal (2016 - 2020)

	2016	2017	2018	2019	2020
Vehicle	54.2%	58.6%	40.4%	59.5%	48.6%
Pedestrian	27.1%	34.5%	44.2%	35.1%	51.4%
Bicycle	18.8%	6.9%	15.4%	5.4%	0.0%

● Bicycle   ● Pedestrian   ● Vehicle
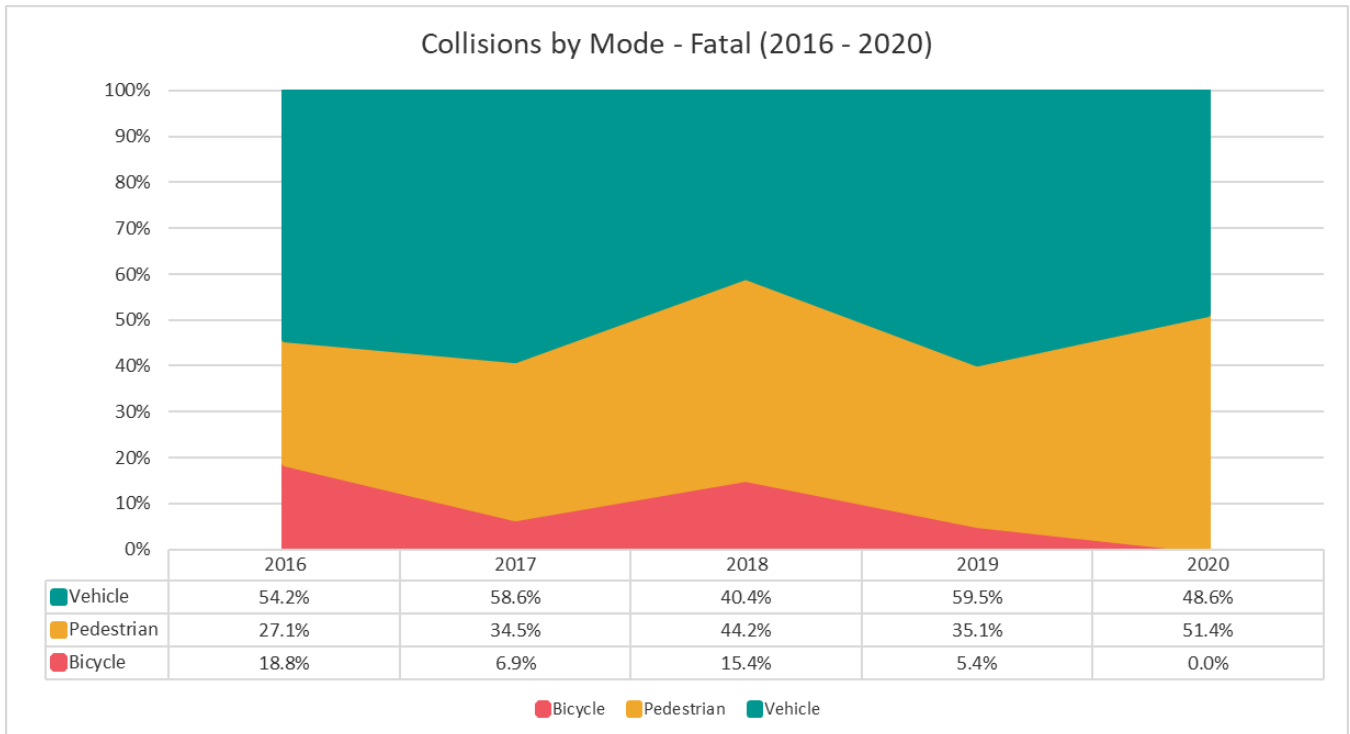
Collisions For People Walking

Roadway segments (portions of the roadway in between intersections) accounted for 78% of all collisions involving people walking between 2016 and 2020. Roadway segments with posted speeds of 35 to 40 miles per hour accounted for nearly one-third of all KSI collisions involving people walking, as shown in **Figure 26**. Additionally, nearly one-third (31%) of all KSI collisions involving people walking occurred as someone crossed outside a marked crosswalk (i.e., the primary collision factor was "crossing not in crosswalk"). People walking in the roadway, including along the shoulder (i.e., in locations without sidewalks) accounted for nearly 27% of all KSI collisions involving someone walking. While the addition of walking facilities and closure of sidewalk gaps may help address these specific collision types, crash reports indicate that additional factors may have contributed to multiple collisions involving people walking including mental health issues and issues relating to the unhoused population.

Collisions for People Biking

Collisions involving people biking in the City of Sacramento vary by location (intersection versus roadway segment) depending on the roadway speed (see **Figure 27**). Roadway segments with higher posted speeds accounted for an increasingly large proportion of KSI collisions involving people bicycling:
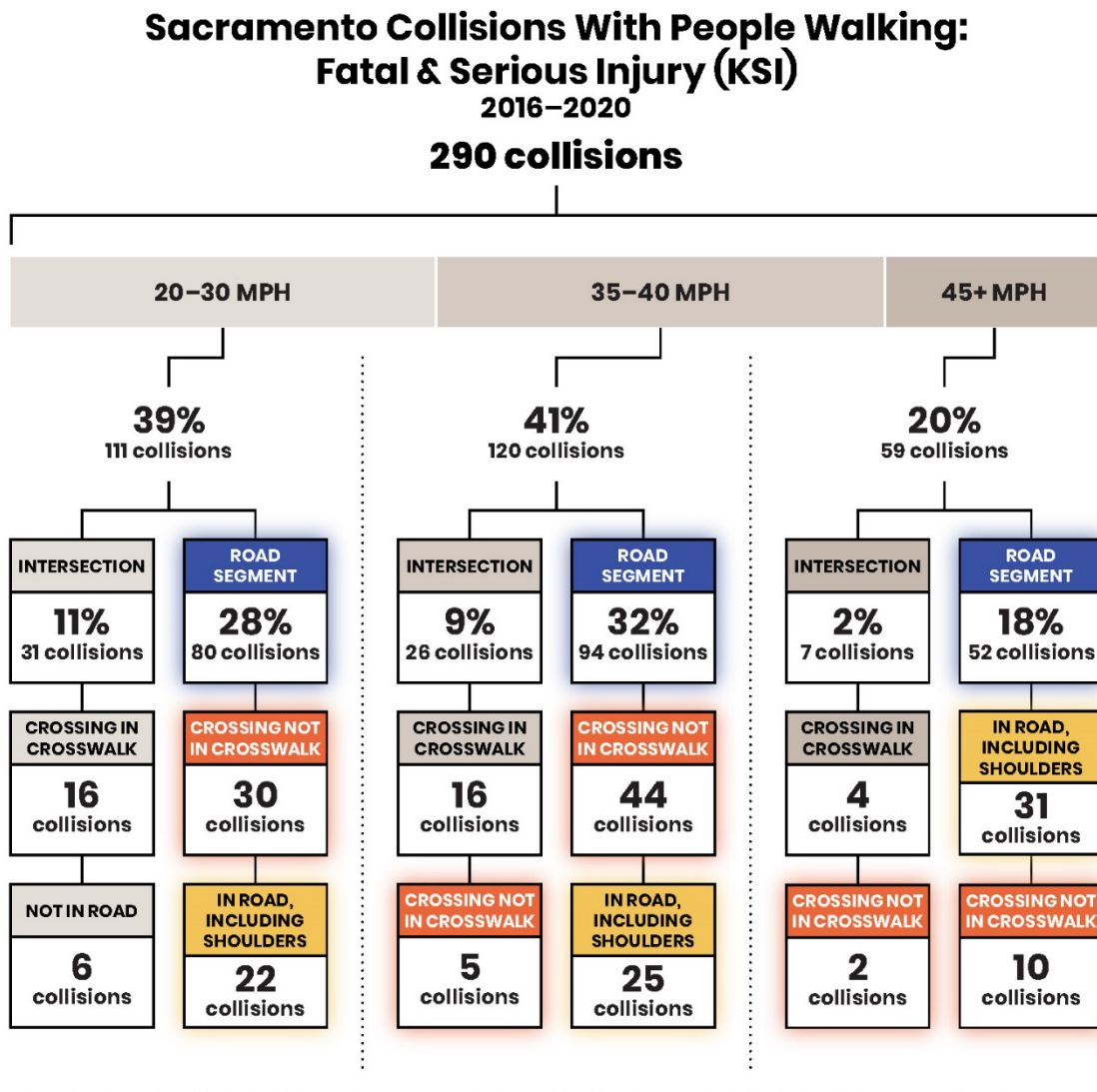
- Roadways with low to moderate posted speeds (20 to 35 mph) – these roadways accounted for 46% of all KSI collisions involving a person bicycling with a nearly even split between intersections (25%) and roadway segments (21%).
- Roadways with moderate to high posted speeds (35 to 40 mph) – collisions occurred along these roadway segments at twice the rate than at intersections (25% versus 12%).
- Roadways with higher posted speed limits (45+ mph): On roadways with posted speeds of 45 mph or higher, more than three times as many KSI collisions involving a person bicycling occurred on roadway segments than at intersections.

People biking in the wrong direction was the leading primary collision factor for KSI collisions involving a person bicycling on low to moderate posted speed limit (20 to 35 mph) roadways. Roadways with moderate to high (35 to 40 mph) posted speed limits accounted for 10% of all KSI collisions involving a person bicycling. "Improper turning" was identified as the primary collision factor for approximately one out of every six KSI collisions involving a person bicycling (16%) between 2016 and 2020; eleven of these occurred outside of normal "daylight" conditions, which indicates potential issues with night-time visibility for people biking.

COLLISION TREE ANALYSIS

Collision trees are a tool to help identify trends in collision data and identify roadway typologies and characteristics which may result in a higher likelihood for collisions. The collision trees included in the following pages highlight the total number of pedestrian and bicycle collisions which resulted in a fatal and serious injury (KSI) collision and divide the collisions by the roadway speed limit, whether it happened at an intersection or on a roadway segment, and the primary action or violation that led to the collision; also called a "Primary Collision Factor" (PCF). Factors such as "Auto Right of Way" highlight that the automobile violated the travel right of way whereas the "Wrong Side of Road" factor indicates that a person bicycling was traveling in the wrong direction at the time of the collision.

Figure 26: KSI-Collision Tree Diagram for People Walking (2016–2020)

Sacramento Collisions With People Walking: Fatal & Serious Injury (KSI)
2016–2020
290 collisions

20–30 MPH	35–40 MPH	45+ MPH
39% 111 collisions	**41%** 120 collisions	**20%** 59 collisions

20–30 MPH

INTERSECTION	ROAD SEGMENT
11% 31 collisions	**28%** 80 collisions
CROSSING IN CROSSWALK 16 collisions	CROSSING NOT IN CROSSWALK 30 collisions
NOT IN ROAD 6 collisions	IN ROAD, INCLUDING SHOULDERS 22 collisions

35–40 MPH

INTERSECTION	ROAD SEGMENT
9% 26 collisions	**32%** 94 collisions
CROSSING IN CROSSWALK 16 collisions	CROSSING NOT IN CROSSWALK 44 collisions
CROSSING NOT IN CROSSWALK 5 collisions	IN ROAD, INCLUDING SHOULDERS 25 collisions

45+ MPH

INTERSECTION	ROAD SEGMENT
2% 7 collisions	**18%** 52 collisions
CROSSING IN CROSSWALK 4 collisions	IN ROAD, INCLUDING SHOULDERS 31 collisions
CROSSING NOT IN CROSSWALK 2 collisions	CROSSING NOT IN CROSSWALK 10 collisions

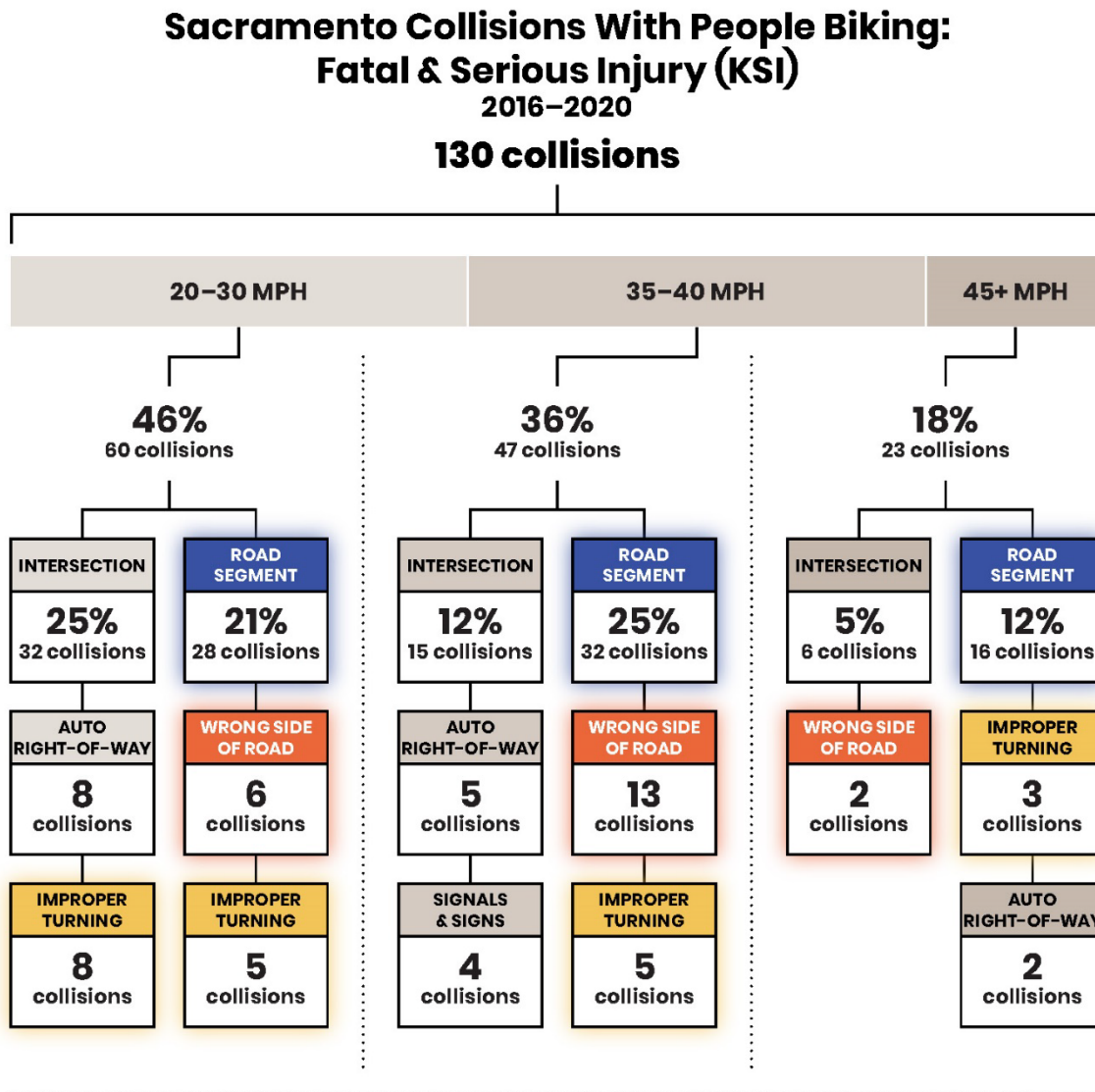**ROAD SEGMENTS** account for 78% of all pedestrian KSI-collisions.

CROSSING NOT IN A CROSSWALK accounted for 31% of all pedestrian KSI-collisions.

IN ROAD, INCLUDING SHOULDER: Over a quarter (26.8%) of all pedestrian KSI-collisions occur as people walk along the road.

Figure 27: KSI-Collision Tree Diagram for People Biking (2016–2020)

Sacramento Collisions With People Biking:
Fatal & Serious Injury (KSI)
2016–2020
130 collisions

20–30 MPH	35–40 MPH	45+ MPH

46%
60 collisions

36%
47 collisions

18%
23 collisions

INTERSECTION	ROAD SEGMENT	INTERSECTION	ROAD SEGMENT	INTERSECTION	ROAD SEGMENT
25% 32 collisions	**21%** 28 collisions	**12%** 15 collisions	**25%** 32 collisions	**5%** 6 collisions	**12%** 16 collisions
AUTO RIGHT-OF-WAY **8** collisions	WRONG SIDE OF ROAD **6** collisions	AUTO RIGHT-OF-WAY **5** collisions	WRONG SIDE OF ROAD **13** collisions	WRONG SIDE OF ROAD **2** collisions	IMPROPER TURNING **3** collisions
IMPROPER TURNING **8** collisions	IMPROPER TURNING **5** collisions	SIGNALS & SIGNS **4** collisions	IMPROPER TURNING **5** collisions		AUTO RIGHT-OF-WAY **2** collisions

ROAD SEGMENTS account for an increasingly high percentage of fatal and serious injury collisions as speeds increase. 58% of all bicycle KSI-collisions occurred on road segments.

WRONG WAY RIDING along 35–40 mph roadways was the leading cause of bicycle fatalities and serious injuries from 2016–2020, accounting for 10% of all bicycle KSI-collisions.

IMPROPER TURNING (vehicles turning into bicyclists) accounted for 16% of all bicycle KSI-collisions.

Top Collision Locations Involving Someone Walking and Biking

The following tables and maps were developed using the latest five years of collision data (2016 to 2020) and identifying intersections with the greatest number of collisions based on the type of mode. This helps to identify intersections and intersection types that may be problematic for that specific mode. Combining the outputs from these mode-specific analyses allows for pinpointing locations that have safety concerns for multiple transportation modes.

The most frequent intersections for collisions involving people walking or biking between 2016 and 2020 are shown in **Table 5**, **Table 6**, and **Figure 28.**

Table 5: Top 10 Collision Intersections for People Biking (All Severities, 2016 - 2020)

Intersection	Collisions Involving People Biking
Fruitridge Road / Stockton Boulevard*	**7**
Sutterville Road / Freeport Boulevard	5
H Street / 29th Street	5
Mack Road / La Mancha Way*	5
Richards Boulevard / Sunbeam Avenue	4
Florin Road / 24th Street*	4
3rd Street / Capitol Mall	4
Arden Way / Evergreen Street	4
Mack Road / Center Parkway	**4**
Folsom Boulevard / 40th Street	3

*Existing City and/or County project underway

***Bold** indicates that the intersection is both a Top 10 intersection for people walking and a Top 10 intersection for people biking.*

Table 6: Top 10 Collision Intersections for People Walking (All Severities, 2016 - 2020)

Intersection	Collisions Involving People Walking
Fruitridge Road / Stockton Boulevard*	**7**
K Street / 29th Street	7
Marysville Boulevard / Grand Avenue	7
Arden Way / Royal Oaks Drive	6
Mack Road / Center Parkway	**6**
Marysville Boulevard / Roanoke Avenue	6
J Street / 13th Street	5
K Street / 21st Street	5
Florin Road / 29th Street*	5
Frienza Avenue / Del Paso Boulevard	5

Existing City and/or County project underway

Bold *indicates that the intersection is both a Top 10 intersection for people walking and a Top 10 intersection for people biking.*

Figure 28: High-Collision Intersections for People Walking and Biking