Bicycle and Pedestrian Advisory Board

Active Santa Rosa

April 2024

active santa rosa

alta

Agenda

- Project Introduction
- Overview and Demographics
- Equity Profile
- Transportation Profile
- Network Comfort
- Collision Analysis
- Active Trip Potential
- Q&A
- Next Steps

Project Introduction

alta

Tasks

City of Santa Rosa

alta

W-Trans

Bicycle and Pedestrian Advisory Board

Task 1 – Project Initiation and Management — alta / W-Trans

Task 2 – Existing Conditions — alta / W-Trans

Task 3 – Public Engagement — alta / W-Trans

Task 4 – Goals and Objectives — alta

Task 5 – Network Analysis — alta

Task 6 – Project Definition and Recommendations — alta / W-Trans

Task 7 – Draft and Final Plan — alta

City of Santa Rosa active santa rosa

alta

Project Timeline

2024   **2025**

WINTER/SPRING	SUMMER	FALL		WINTER/SPRING

LISTEN & LEARN
Information Gathering + Outreach

- BPAB Meetings
- Website
- Online Interactive Map
- Pop-up Events
- Community Workshops
- Stakeholder Meetings

BUILD CONSENSUS
Develop Recommendations

- BPAB Meetings
- Website
- Online Interactive Map
- Pop-up Events
- Community Workshops
- Stakeholder Meetings

REVIEW
Share Public Draft Plan

- BPAB Meetings
- Website
- Plan Review Tool
- City Council Approval

City of Santa Rosa

active santa rosa

alta

Overview and Demographics

alta

Plans Reviewed

- Local Road Safety Plan (2022)
- Santa Rosa Avenue Corridor Improvement (2022)
- Roseland Creek Community Plan (2021)
- Stony Point Road Corridor Study for Active Transportation Modes (2021)
- Downtown Station Area Specific Plan (2020)
- Community Empowerment Strategy (2020)
- Roseland Area/Sebastopol Road Specific Plan (2016)
- Jennings Avenue Pedestrian and Bicycle Rail Crossing Final EIR (2015)
- Principles of Community Engagement (2014)
- Santa Rosa Citywide Creek Master Plan (2013)
- North Santa Rosa Station Area Specific Plan (2012)
- Streetlight Design Standards (2011)
- Traffic Standards (2008)

- Public Storm Drain Standards (2005)
- Street Design and Construction Standards (2004)
- 3575 Mendocino Avenue Project Sustainable Communities Environmental Assessment (2000)
- Park and Landscape Construction Standards (1997)
- Construction Specifications for Public Improvements (1979)
- Spectrum of Community Engagement
- Santa Rosa General Plan
- Santa Rosa General Plan Update

- Sonoma County Vision Zero Action Plan (SCTA and Sonoma County Health) (2022)
- Highway 101 Overcrossing ISMND and Fact Sheet (2021)
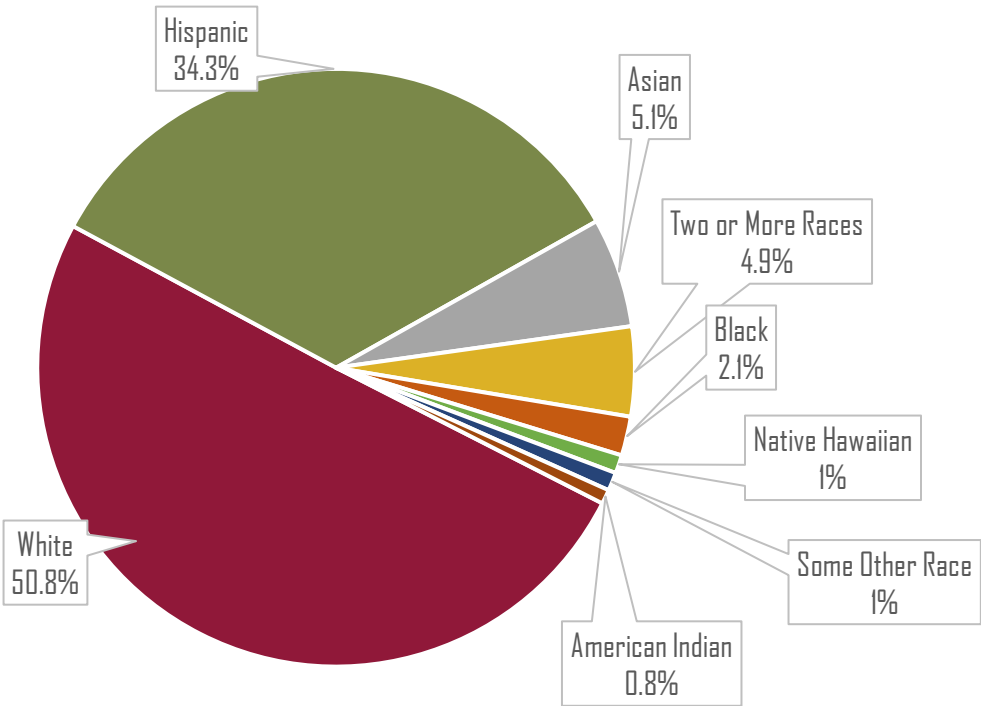
Background Documents
summary and key findings

- Focus on planning/ implementation in **Equity Priority Areas/Communities**

- **Vision Zero** principles a priority

- Fundamental shift toward providing facilities that offer **greater protection** from vehicle traffic for people walking and biking

- Enhanced **active transportation** projects closely linked to **land use** plans

- Focus on **improving access to transit** (SMART station areas and major transit corridors)

- Active transportation to **reduce Vehicle Miles Traveled (VMT)** big focus at citywide and neighborhood levels
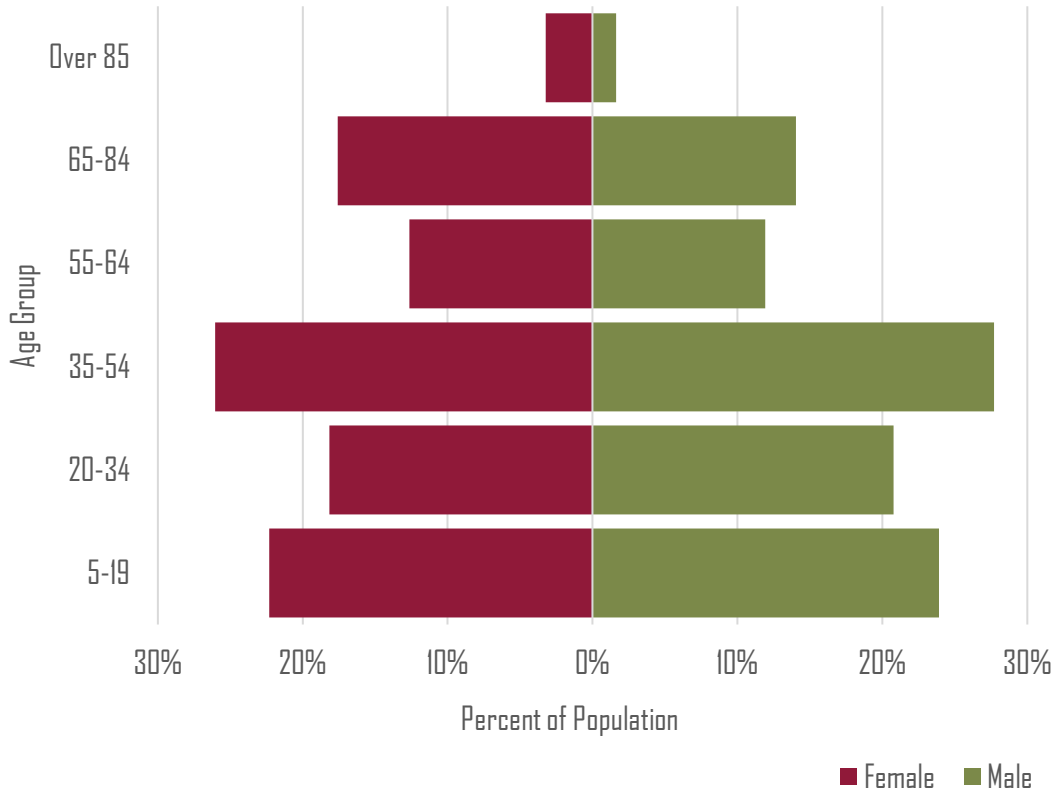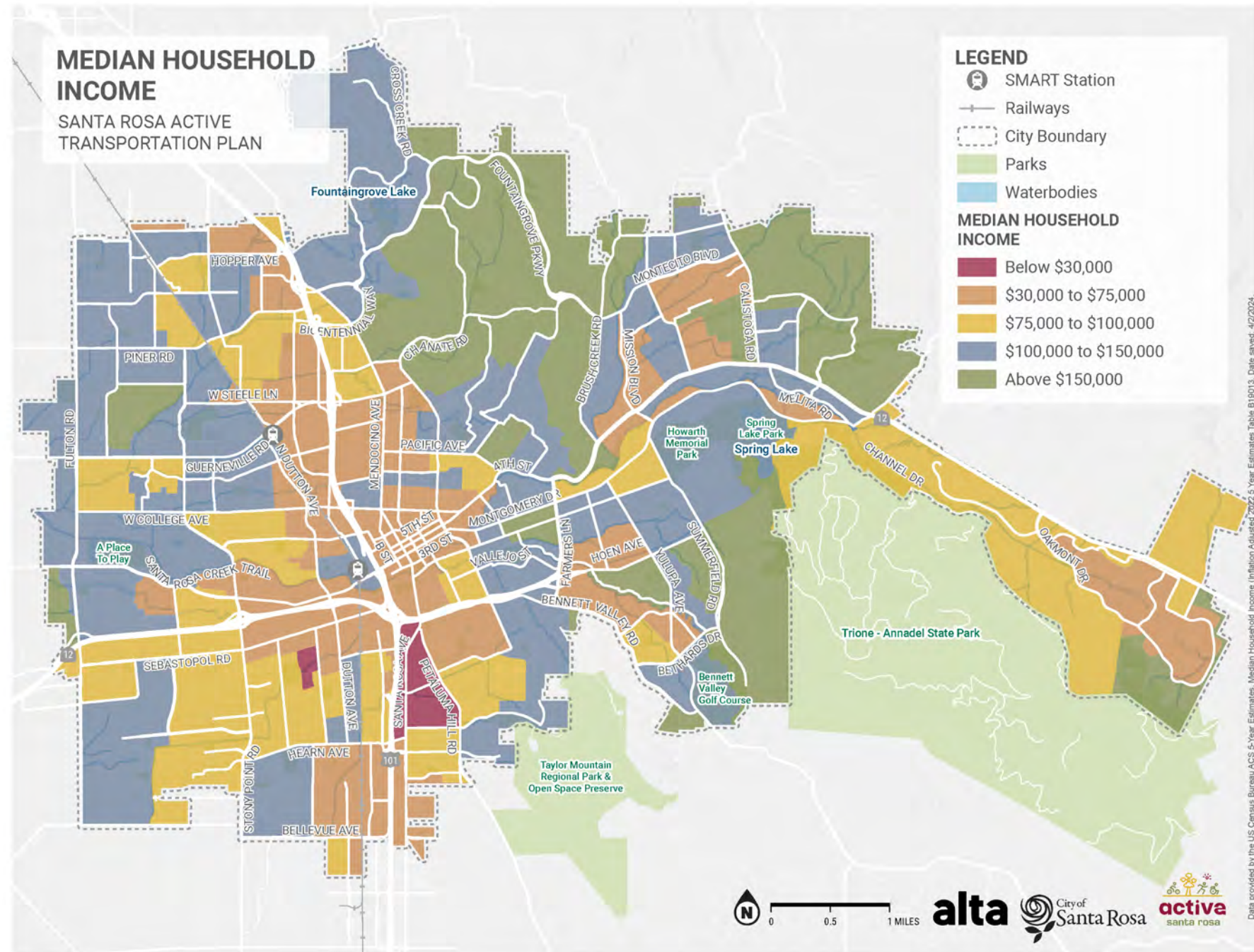
Existing Conditions
demographics

RACE

Hispanic 34.3%
Asian 5.1%
Two or More Races 4.9%
Black 2.1%
Native Hawaiian 1%
Some Other Race 1%
American Indian 0.8%
White 50.8%

AGE AND SEX

Age Group: Over 85, 65-84, 55-64, 35-54, 20-34, 5-19

Percent of Population

Female   Male

Source: American Community Survey. 5-Year Estimate (2018–2022).

Existing Conditions

income

- Median Household Income: $92,604

- 10% residents below the poverty line

- Below $30,000:
    - Roseland neighborhood
    - SE of HWY 101/SR 12

Source: ACS 5-year estimates (2018–2022)

MEDIAN HOUSEHOLD INCOME

SANTA ROSA ACTIVE TRANSPORTATION PLAN

LEGEND
- SMART Station
- Railways
- City Boundary
- Parks
- Waterbodies

MEDIAN HOUSEHOLD INCOME
- Below $30,000
- $30,000 to $75,000
- $75,000 to $100,000
- $100,000 to $150,000
- Above $150,000

Existing Conditions
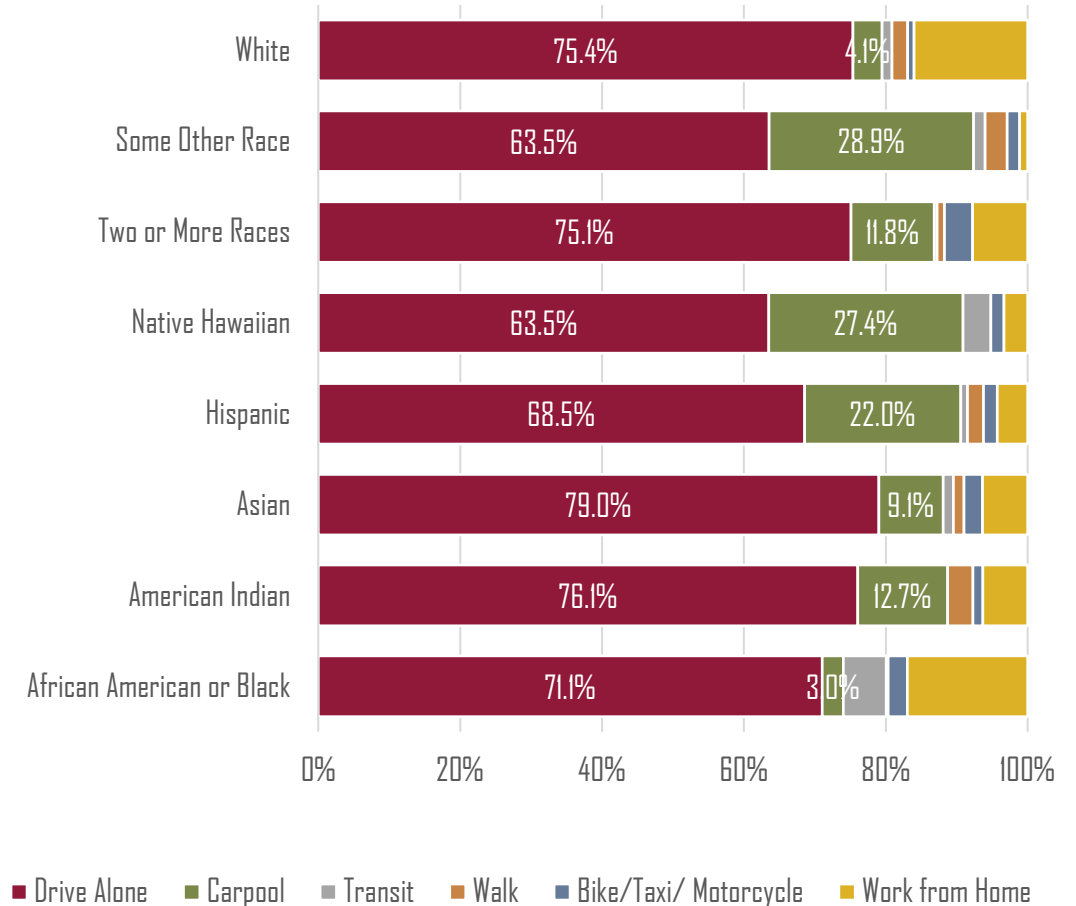## employment

- 69,552 jobs in Santa Rosa
  - 37% live in the city
  - 63% commute into the city

- Jobs outside Santa Rosa
  - 48% of residents commute outside of city

- Highest job density: Downtown and northern HWY 101

- Largest employment sectors: healthcare and social assistance (23%); retail (13%)

Source: US Census LEHD 2021
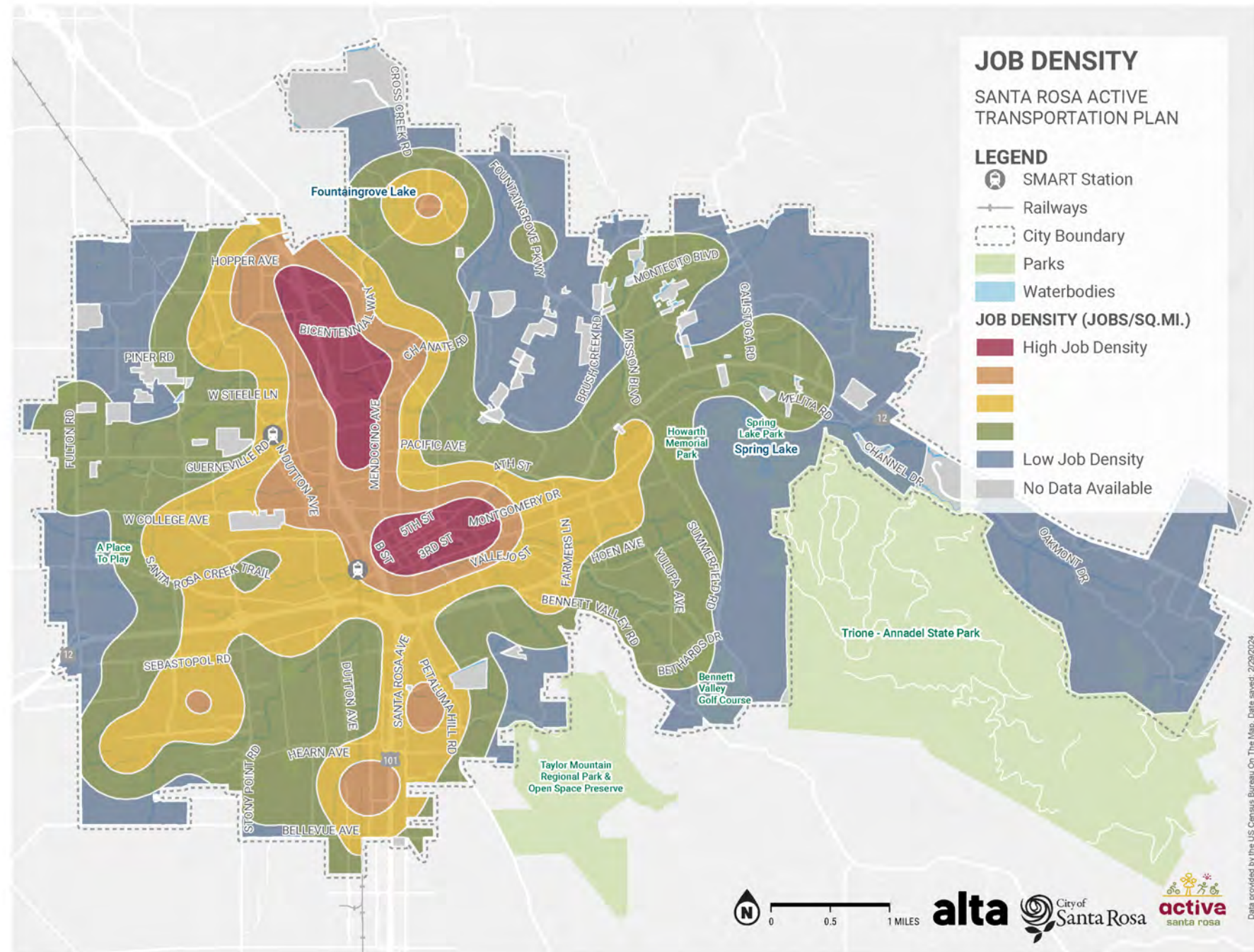
Existing Conditions

commute profile

- 71.5% of residents DRIVE alone

- Hispanic and Native Hawaiian residents are five times more likely to carpool as their white counterparts

- Black residents bike to work at 3x the rate as their white counterparts

- Most non-white residents are more likely to use carpooling and other forms of transportation then their white counterparts

Legend: Drive Alone, Carpool, Transit, Walk, Bike/Taxi/ Motorcycle, Work from Home

| Race	Drive Alone	Carpool
White	75.4%	4.1%
Some Other Race	63.5%	28.9%
Two or More Races	75.1%	11.8%
Native Hawaiian	63.5%	27.4%
Hispanic	68.5%	22.0%
Asian	79.0%	9.1%
American Indian	76.1%	12.7%
African American or Black	71.1%	3.0%

Equity Profile

alta

Equity Profile

MTC / Santa Rosa
Equity Priority Communities/Areas

- Demographic variables:
    - People of Color
    - Low-Income
    - Limited English Proficiency
    - Seniors 75 years and over
    - Zero-Vehicle Households
    - Single Parent families
    - People with a disability
    - Rent-burdened Households

- Highest need areas:
    - Roseland and South Park neighborhoods
    - Downtown
    - Near Santa Rosa North SMART Station
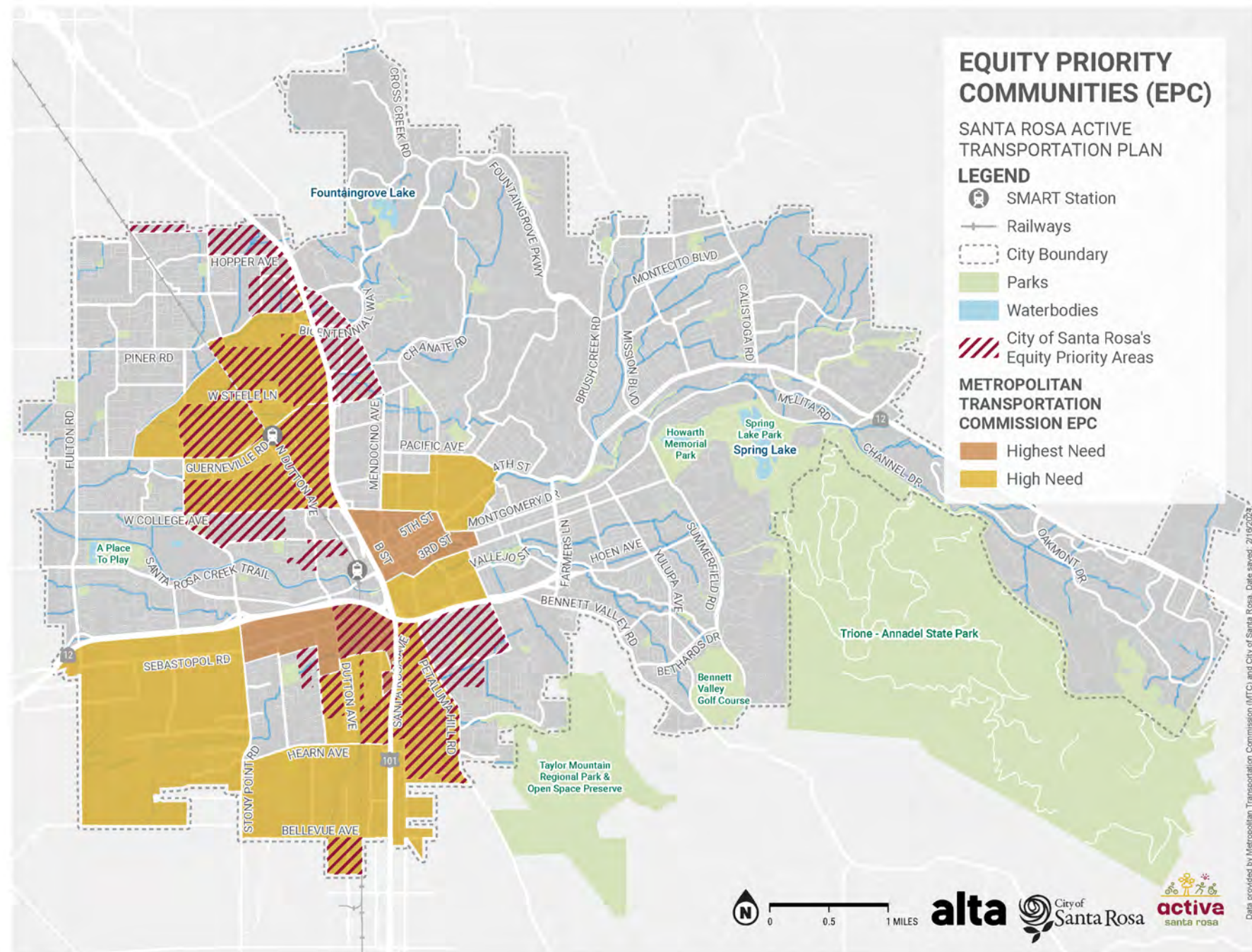
Source: MTC, City of Santa Rosa

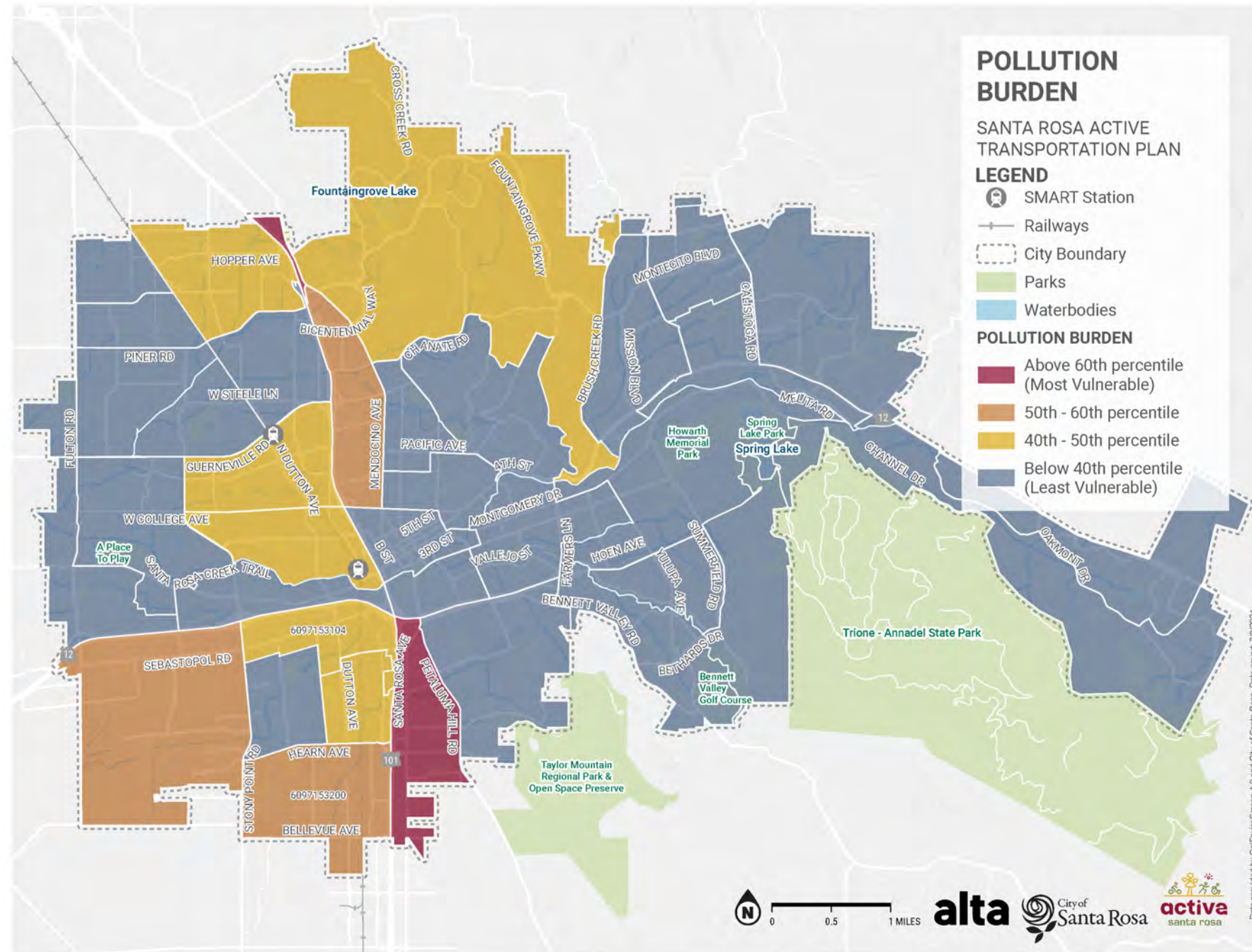# Equity Profile
CalEnviroScreen 4.0
Pollution Burden

DEFINITION:

Aggregate concentration of:

- High ozone levels
- High PM 2.5 particulate
- Children's Lead Risk
- Diesel Particulate Matter
- Drinking water contaminants
- Pesticide use
- Traffic impacts
- Other variables

FINDINGS:

- Highest pollution burden:
  - Southeast of HWY 101/SR 12 interchange (west of Petaluma Hill Rd)
  - 50th – 60th percentile: Roseland neighborhood and West Junior College neighborhood

Source: CalEnviroScreen 4.0

https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40

POLLUTION BURDEN

SANTA ROSA ACTIVE TRANSPORTATION PLAN

LEGEND

- SMART Station
- Railways
- City Boundary
- Parks
- Waterbodies

POLLUTION BURDEN

- Above 60th percentile (Most Vulnerable)
- 50th - 60th percentile
- 40th - 50th percentile
- Below 40th percentile (Least Vulnerable)

Equity Profile
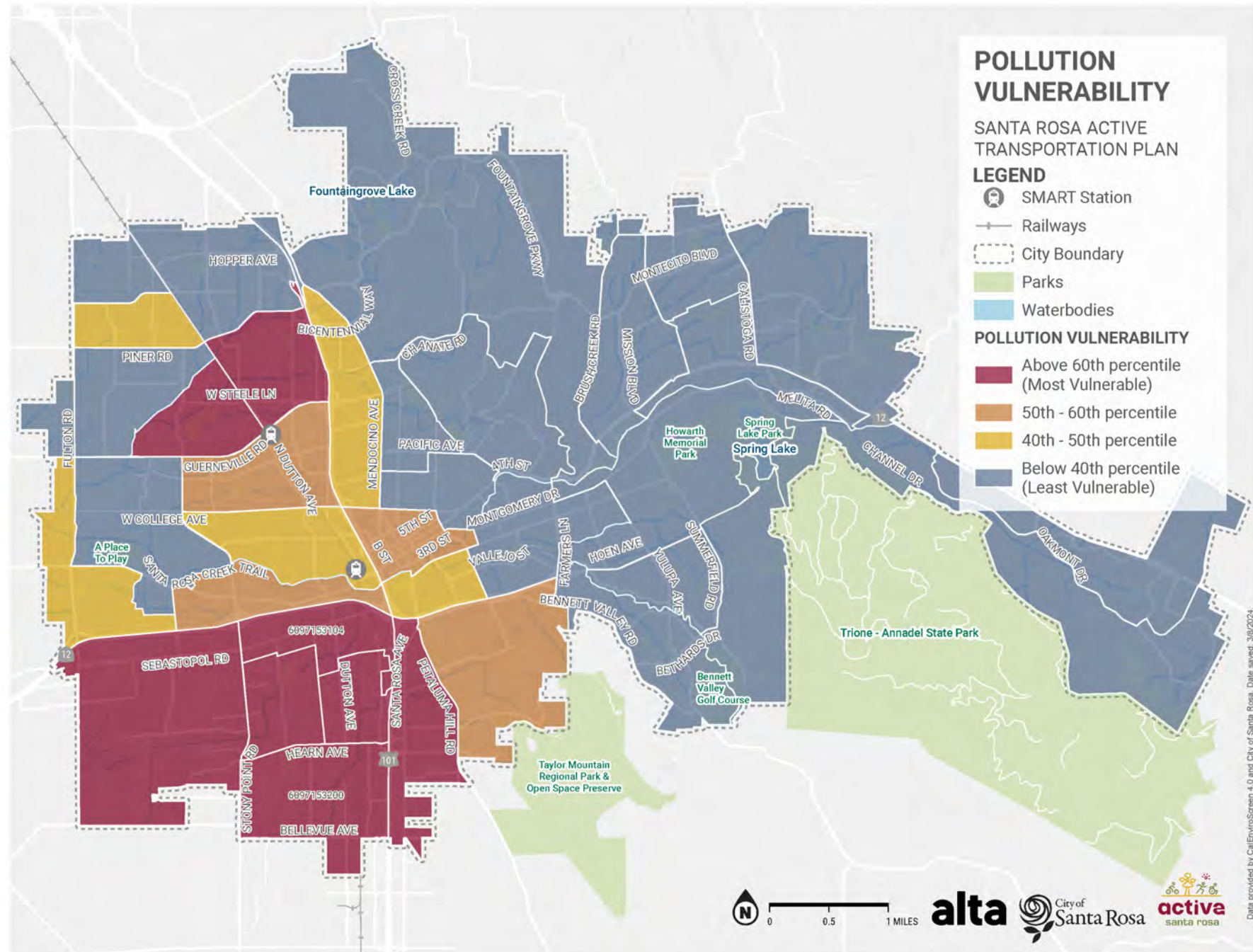
CalEnviroScreen 4.0
Population Characteristics

DEFINITION:

Aggregate concentration of:

- Asthma
- Cardiovascular disease
- Low birth weight of infants
- Low educational attainment
- Housing burden
- Linguistic isolation
- Poverty
- High unemployment rates

FINDINGS:

Most vulnerable: Roseland neighborhood; southeast of Highway 101/SR 12 (west of Petaluma Hill Rd); north of Santa Rosa North SMART station (west of Highway 101)

Source: CalEnviroScreen 4.0

https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40

POLLUTION VULNERABILITY

SANTA ROSA ACTIVE TRANSPORTATION PLAN

LEGEND
- SMART Station
- Railways
- City Boundary
- Parks
- Waterbodies

POLLUTION VULNERABILITY
- Above 60th percentile (Most Vulnerable)
- 50th - 60th percentile
- 40th - 50th percentile
- Below 40th percentile (Least Vulnerable)

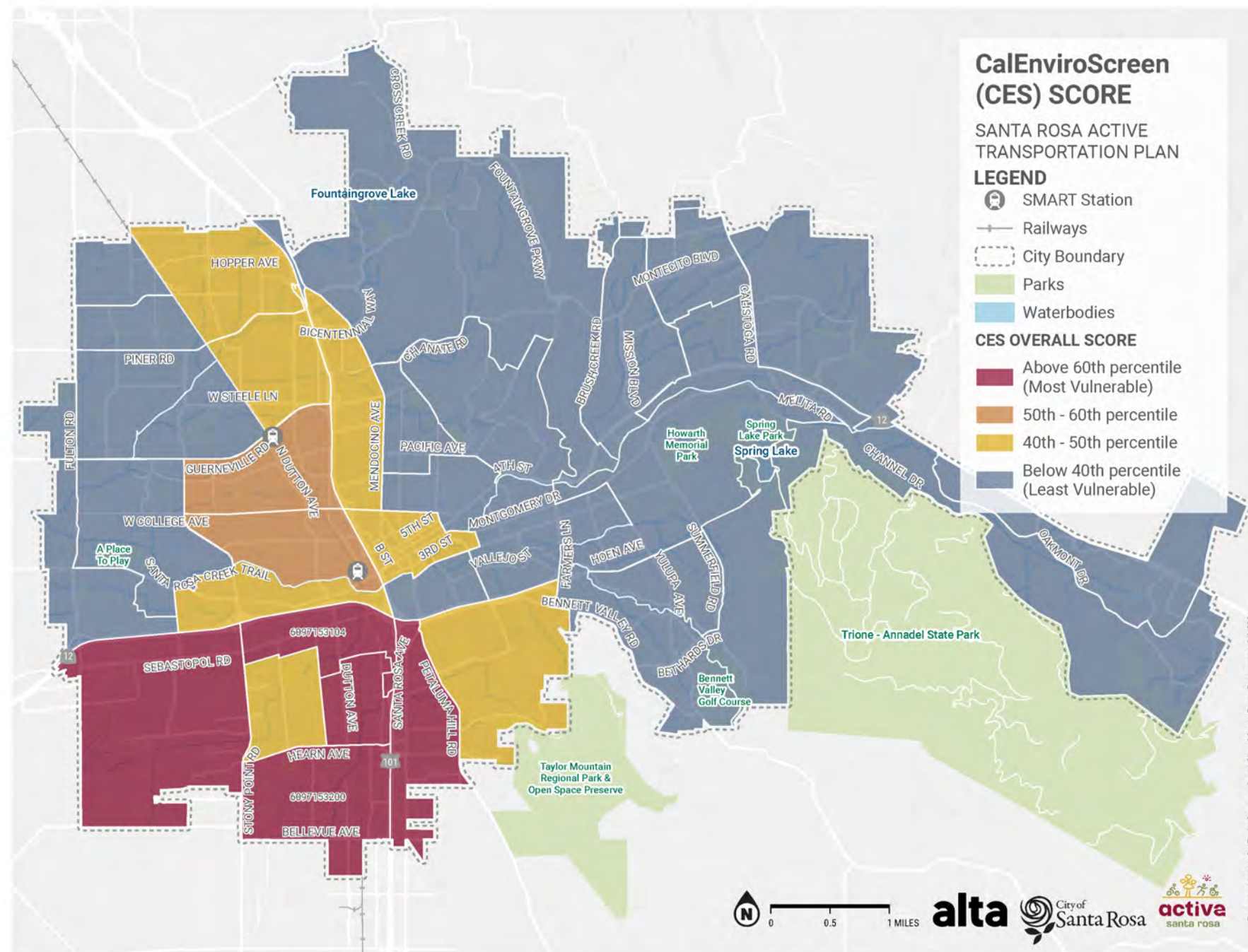# Equity Profile

CalEnviroScreen 4.0
Environmental Health
(aggregate)

DEFINITION:

Aggregate of Pollution Burden and Population
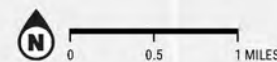Characteristics

FINDINGS:

- Highest affected:
    - Roseland neighborhood
    - Census tract directly southwest of
      HWY101/SR 12 interchange

- Other areas affected:
    - Tracts close to HWY 101

Source: CalEnviroScreen 4.0
https://oehha.ca.gov/calenviroscreen/report/calenviroscree
n-40

CalEnviroScreen (CES) SCORE

SANTA ROSA ACTIVE
TRANSPORTATION PLAN

LEGEND
- SMART Station
- Railways
- City Boundary
- Parks
- Waterbodies

CES OVERALL SCORE
- Above 60th percentile (Most Vulnerable)
- 50th - 60th percentile
- 40th - 50th percentile
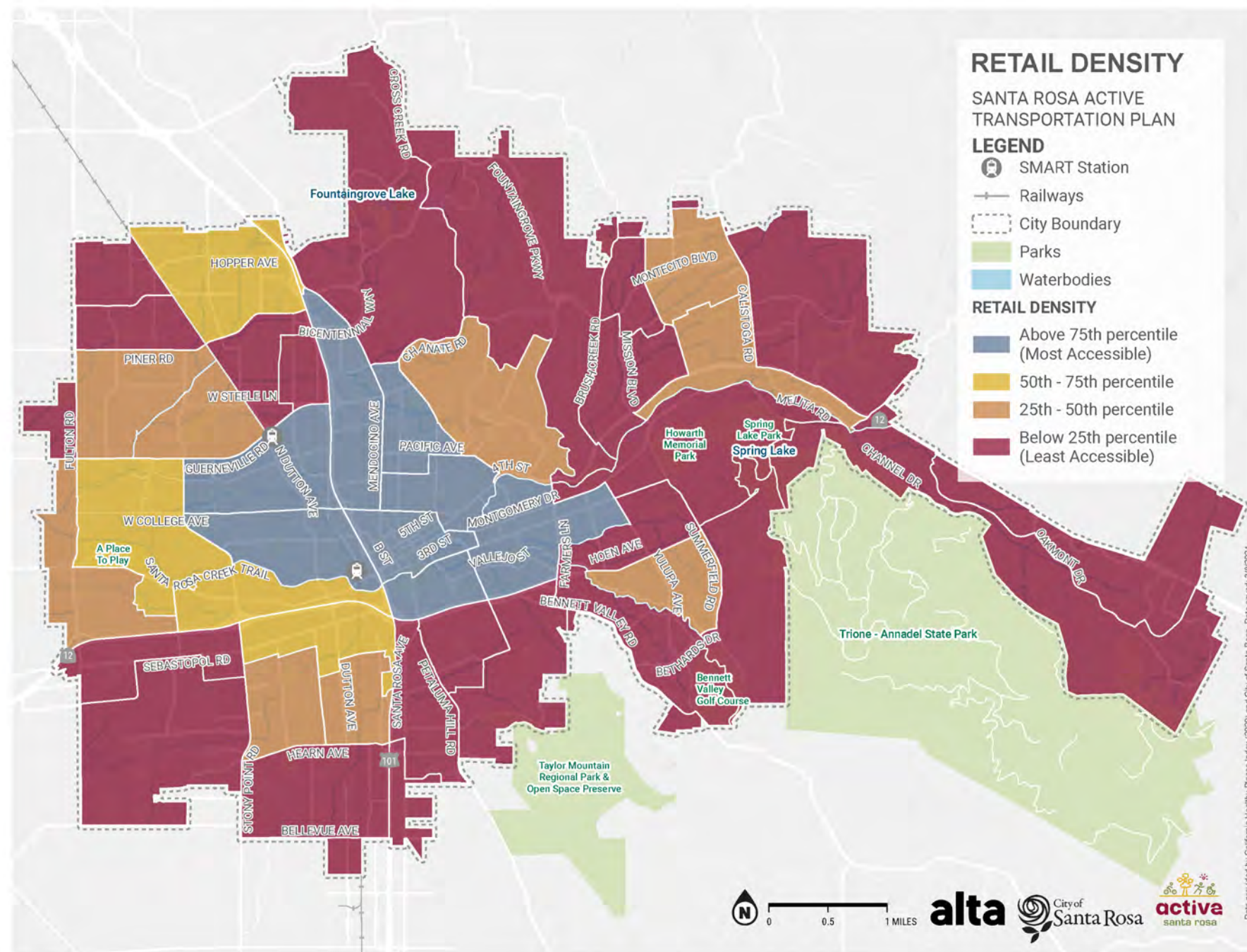- Below 40th percentile (Least Vulnerable)

Equity Profile
Retail Density

DEFINITION:

Number of retail, entertainment, and education jobs per acre

FINDINGS:

- Highest retail density: Downtown and along either side of HWY 101 (north of SR 12)

RETAIL DENSITY

SANTA ROSA ACTIVE TRANSPORTATION PLAN

LEGEND

- SMART Station
- Railways
- City Boundary
- Parks
- Waterbodies

RETAIL DENSITY

- Above 75th percentile (Most Accessible)
- 50th - 75th percentile
- 25th - 50th percentile
- Below 25th percentile (Least Accessible)

Equity Profile

CA Healthy Places Index Park Access

DEFINITION:

Percentage of population living within ½ mile of a park, beach, or open space that is larger than 1 acre

FINDINGS:

Least park access:

- Roseland / South Park
- North of Santa Rosa North SMART station
- Northeastern / hillside neighborhoods
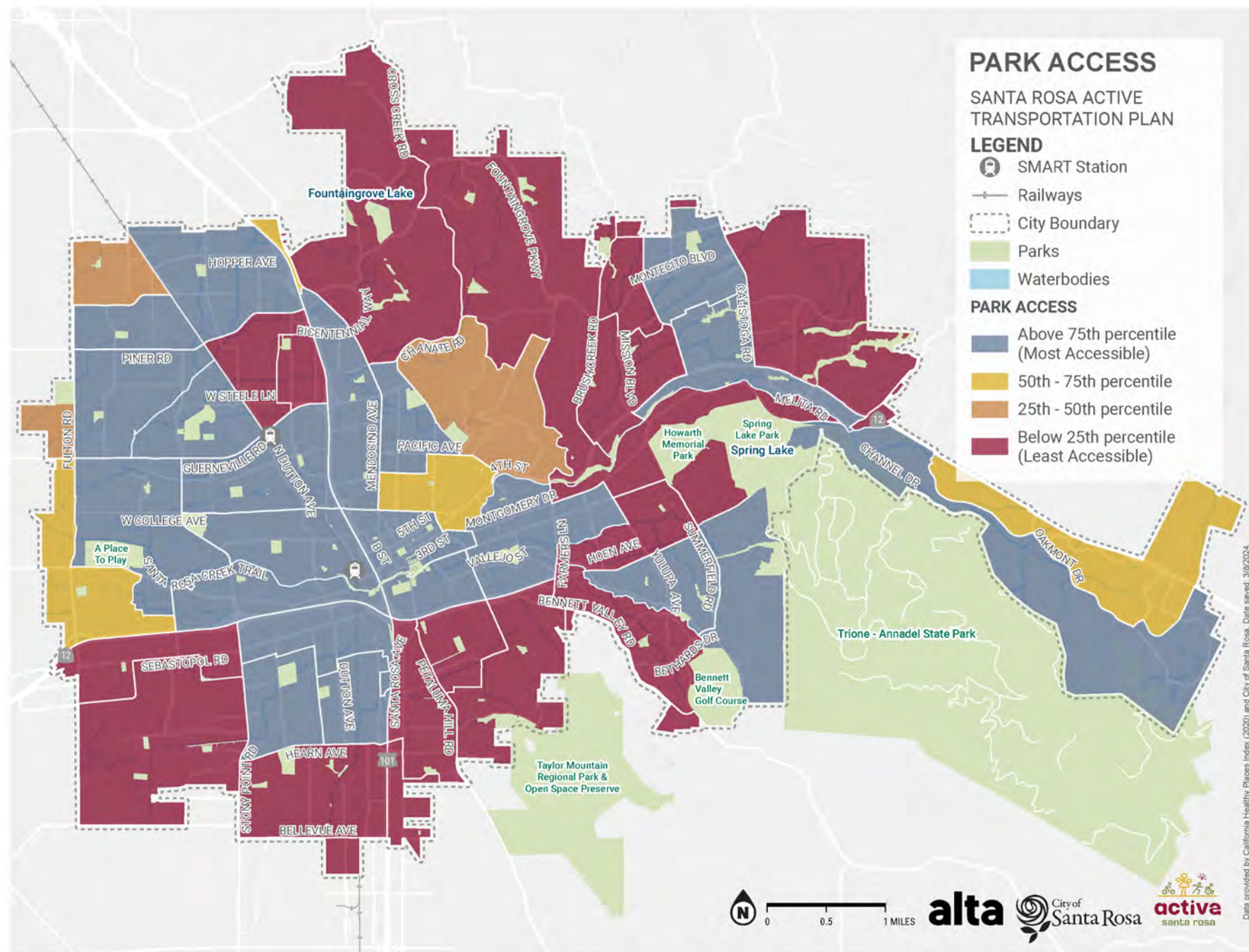
Source: CA Healthy Places Index
https://www.healthyplacesindex.org/

PARK ACCESS

SANTA ROSA ACTIVE TRANSPORTATION PLAN

LEGEND
- SMART Station
- Railways
- City Boundary
- Parks
- Waterbodies

PARK ACCESS
- Above 75th percentile (Most Accessible)
- 50th - 75th percentile
- 25th - 50th percentile
- Below 25th percentile (Least Accessible)
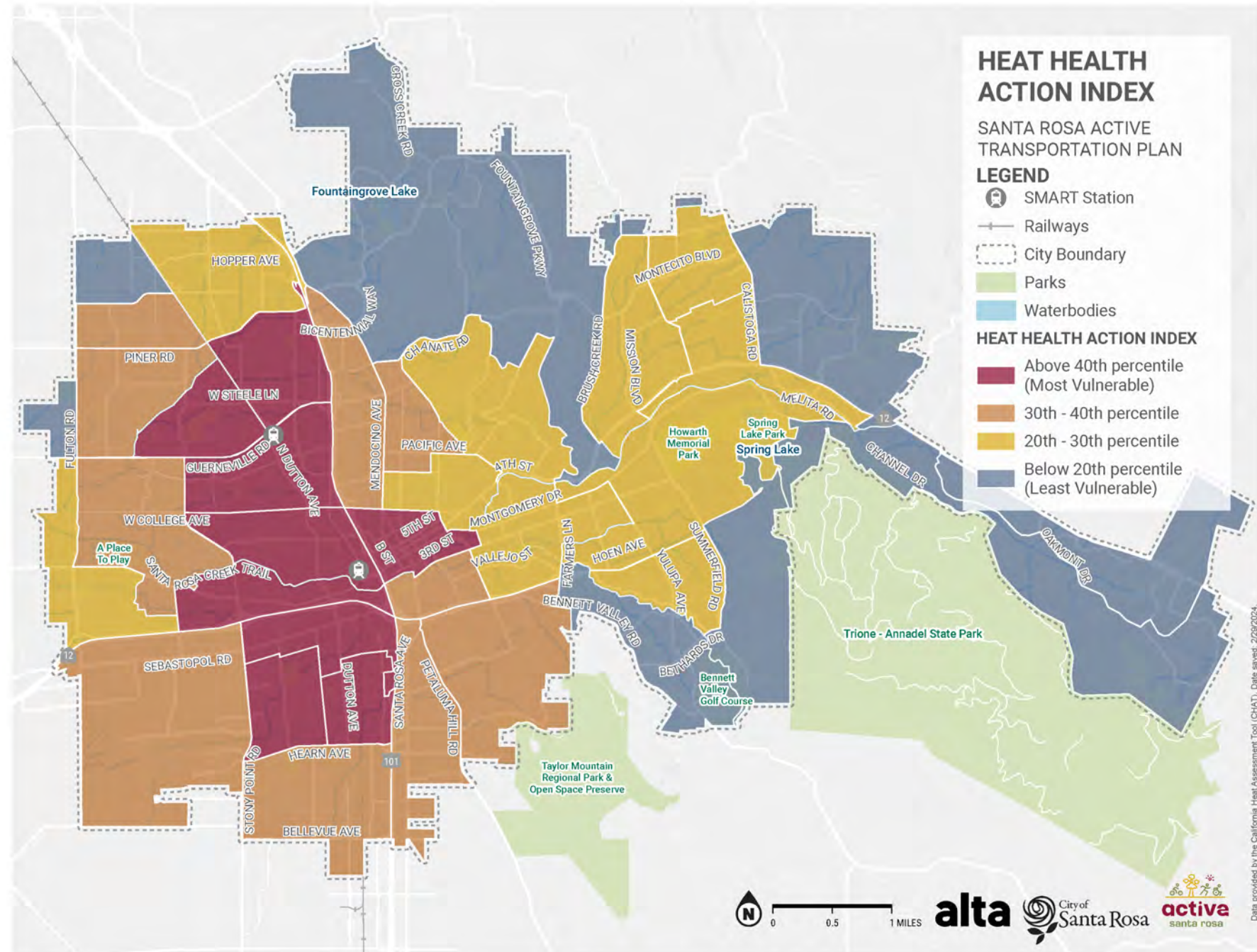
Equity Profile
Heat Vulnerability

DEFINITION:

Most affected by and vulnerable to increased temperatures and extreme heat events

FINDINGS:

Most vulnerable:

- Neighborhoods immediately west of Highway 101 between Hearn Avenue and Piner Road

- The downtown area east of Highway 101 between College Avenue and Sonoma Avenue

- Northern portions of the Roseland Neighborhood

Source: CA Heat Assessment Tool https://www.cal-heat.org/

Equity Profile

Combined Environmental and Public Health

- High environmental burden & medium public health burden (red): either side of Highway 101 (Downtown, West Junior College, SMART stations); Roseland neighborhood east of Stony Point Road;

- High environmental burden & high public health burden (dark red): near Coffey Park (north of Piner Road & west of Highway 101)

- High public health burden & low environmental burden (dark blue): eastern side of the city along SR 12
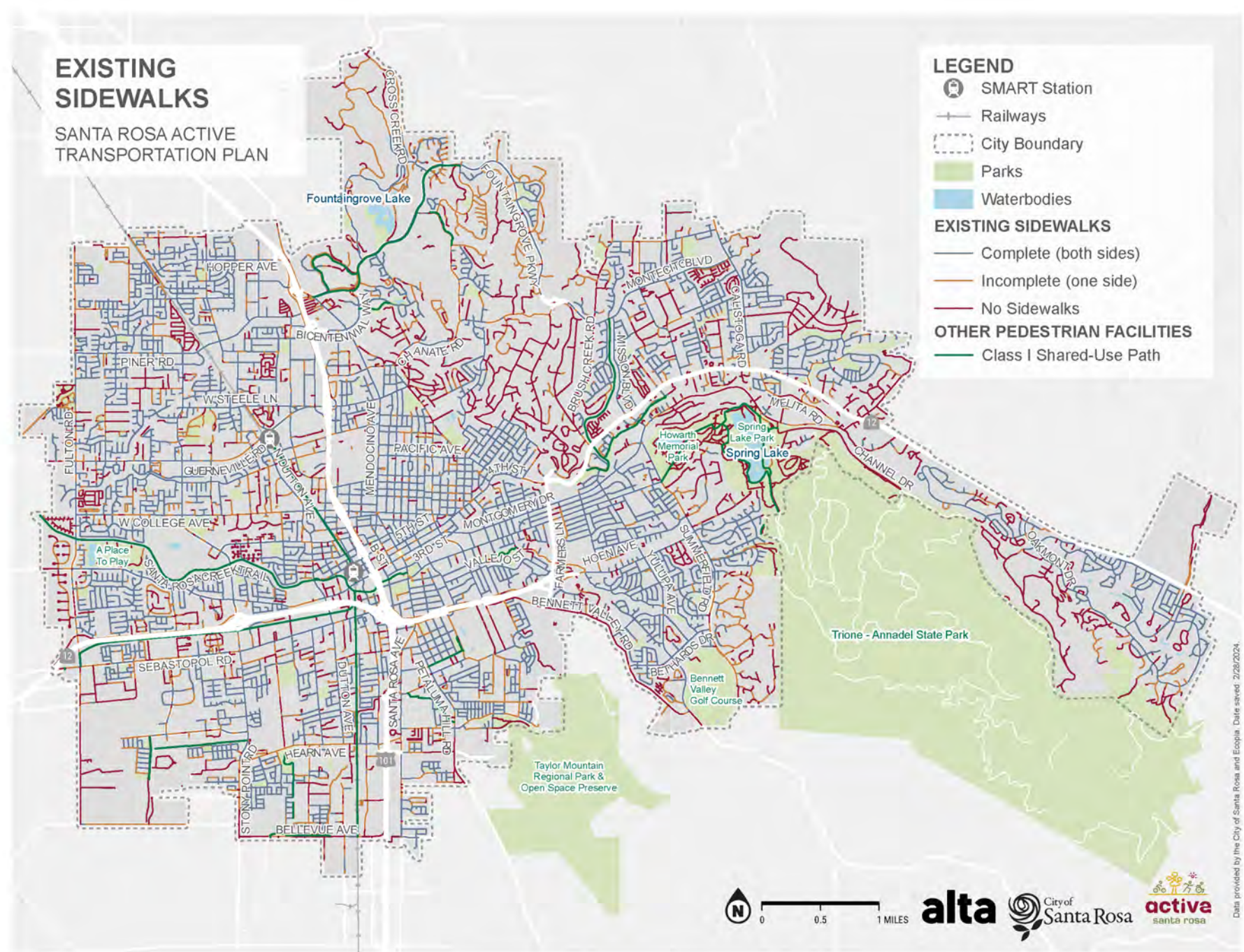
Source: CalEnviroScreen 4.0, MTC, City of Santa Rosa
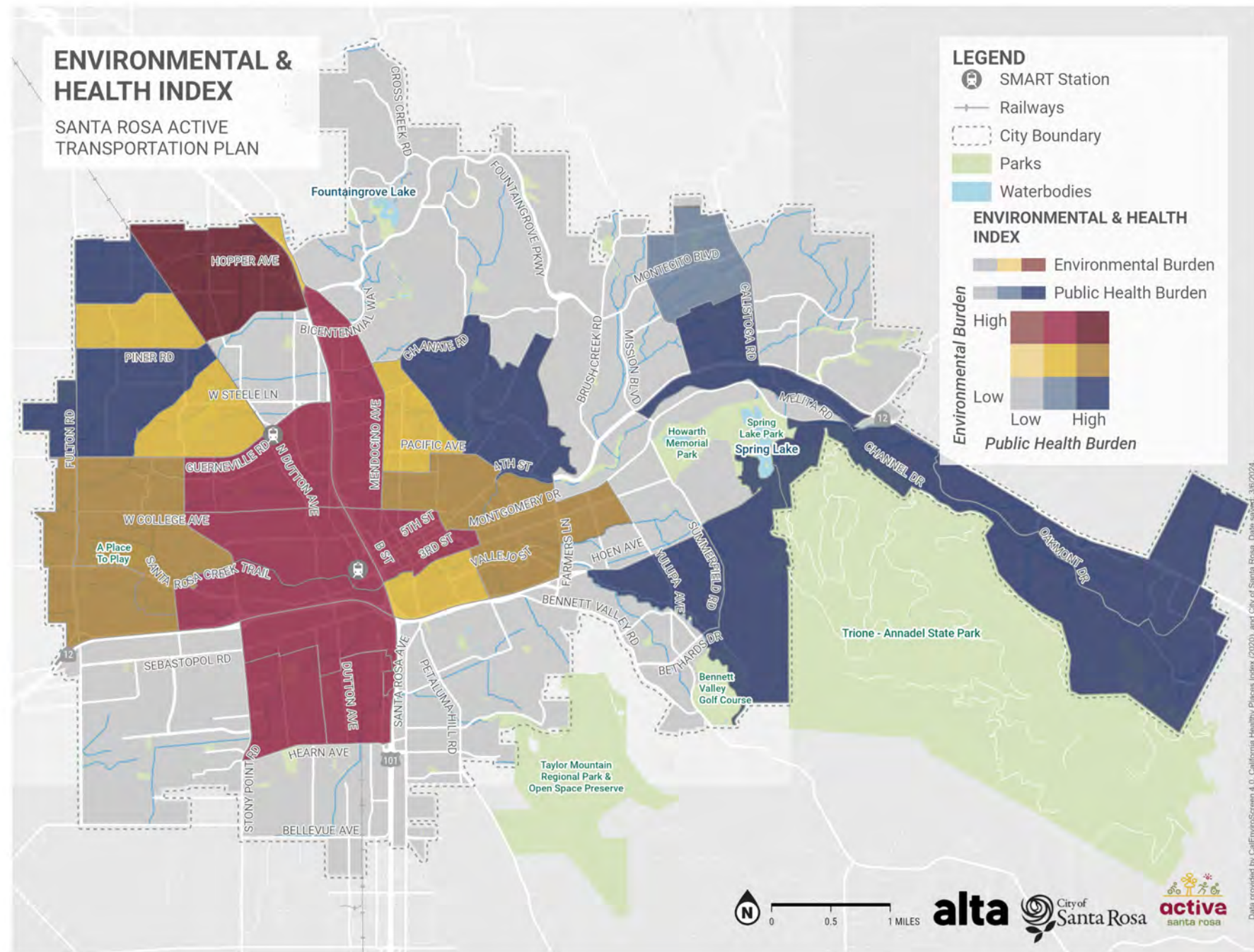
Transportation Profile

alta

Transportation Profile

Walking Facilities – Existing Sidewalks/Shared Use Paths

- Complete sidewalks (2 sides): Downtown & gridded central area

- Incomplete sidewalks: hillside neighborhoods, curvilinear streets / dead end streets, industrial areas (i.e. Roseland neighborhood)
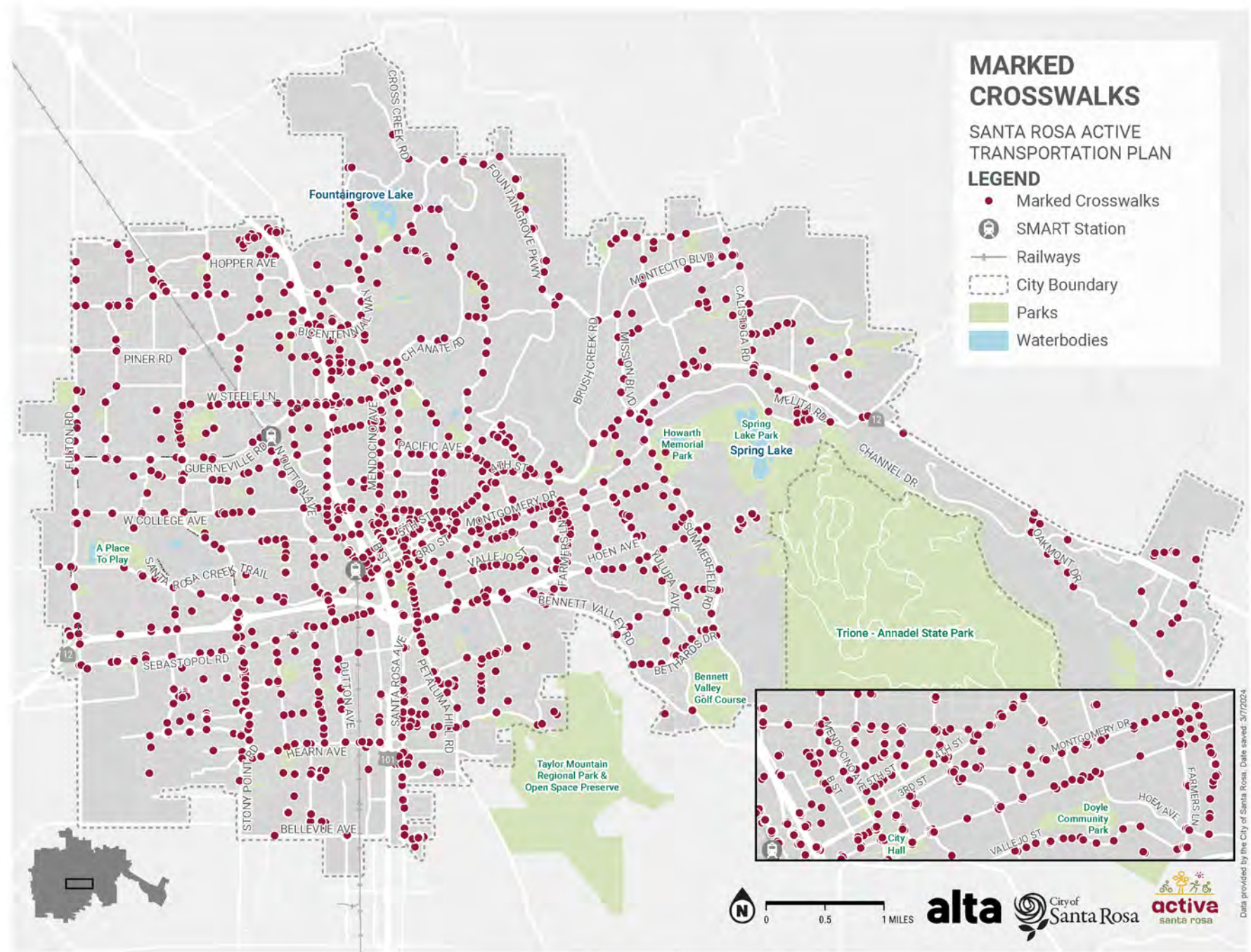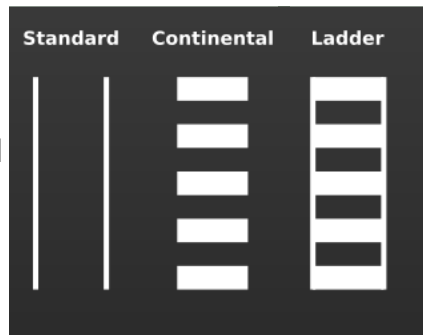
Transportation Profile

Walking Facilities – Marked Crosswalks

- 24% of all intersections have a marked crosswalk

- 48% of all collector/arterial intersections have a marked crosswalk

- Marked crosswalks are less common at intersections between local roads, except near schools and parks
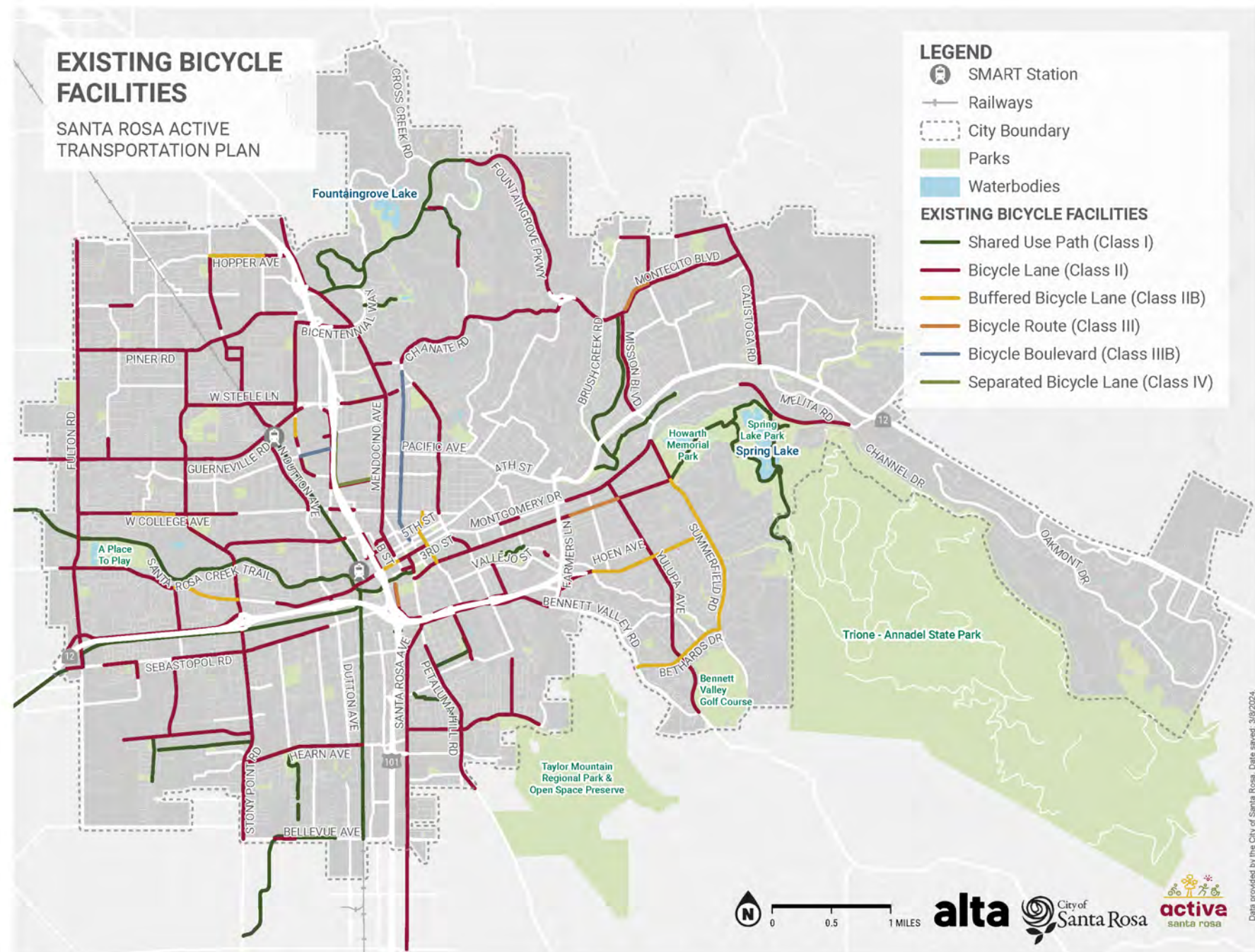
Examples of marked Crosswalks

Standard   Continental   Ladder

MARKED CROSSWALKS

SANTA ROSA ACTIVE TRANSPORTATION PLAN

LEGEND

- ● Marked Crosswalks
- Ⓢ SMART Station
- ╂ Railways
- City Boundary
- Parks
- Waterbodies

Transportation Profile
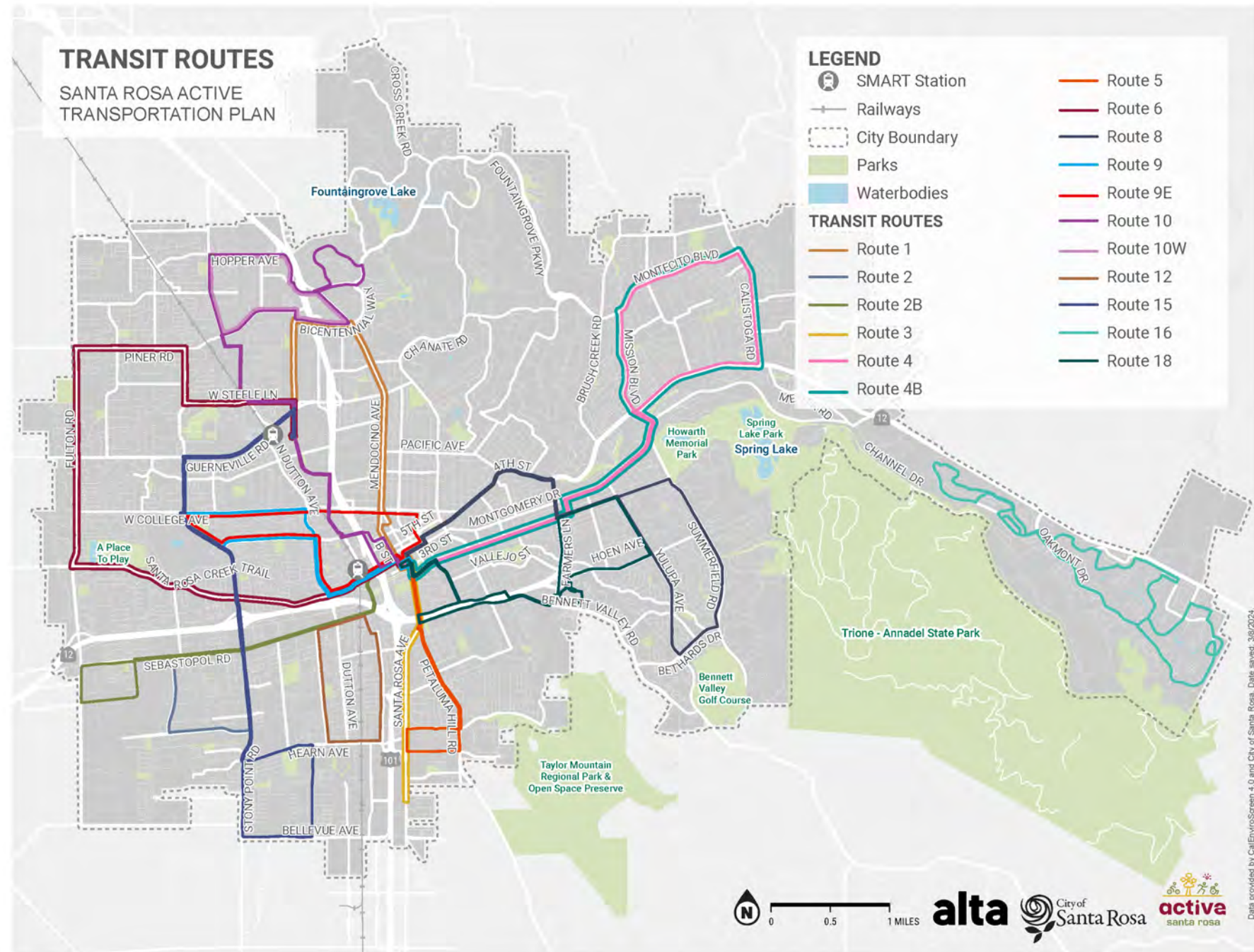
Bicycling Facilities

- 108 miles of existing bicycle facilities

- Most of existing network consists of Bike Lanes (68 mi) and Shared-use Paths (31 mi.)

- Many bike lanes exist along multilane arterials and may not be comfortable for most users

- Highways and intersections between arterials often serve as barriers/gaps in the network

EXISTING BICYCLE FACILITIES

SANTA ROSA ACTIVE TRANSPORTATION PLAN

LEGEND
- SMART Station
- Railways
- City Boundary
- Parks
- Waterbodies

EXISTING BICYCLE FACILITIES
- Shared Use Path (Class I)
- Bicycle Lane (Class II)
- Buffered Bicycle Lane (Class IIB)
- Bicycle Route (Class III)
- Bicycle Boulevard (Class IIIB)
- Separated Bicycle Lane (Class IV)

Transportation Profile

Transit Network

- Sonoma County Transit, SMART Rail, Golden Gate Transit, Santa Rosa CityBus

- Santa Rosa CityBus: 17 bus routes

- Five major transfer points
  - Coddington Town Transit Hub & Shopping Center
  - Westside Transfer Center
  - Santa Rosa Plaza
 - Montgomery Village Transit Hub,
  - Transit Mall

TRANSIT ROUTES

SANTA ROSA ACTIVE TRANSPORTATION PLAN

LEGEND

- SMART Station
- Railways
- City Boundary
- Parks
- Waterbodies

TRANSIT ROUTES

- Route 1
- Route 2
- Route 2B
- Route 3
- Route 4
- Route 4B
- Route 5
- Route 6
- Route 8
- Route 9
- Route 9E
- Route 10
- Route 10W
- Route 12
- Route 15
- Route 16
- Route 18

Transportation Profile
Bus Ridership

- Busiest Bus Stops:
    - Transit Mall
    - Santa Rosa Junior College Campus
    - Finley Avenue at Wright Road
    - Fulton Road Piner High School
    - Sonoma Avenue at Carley Drive
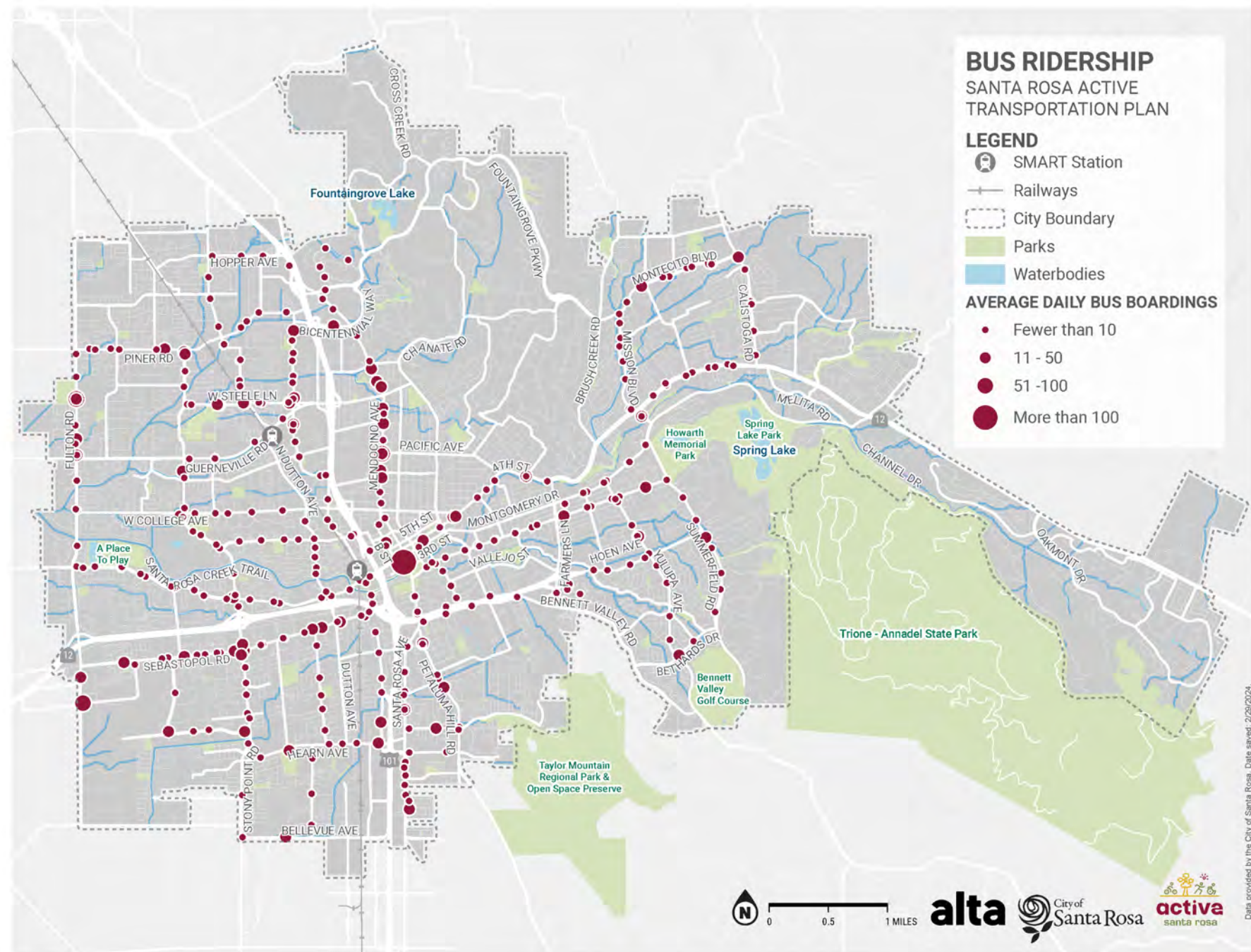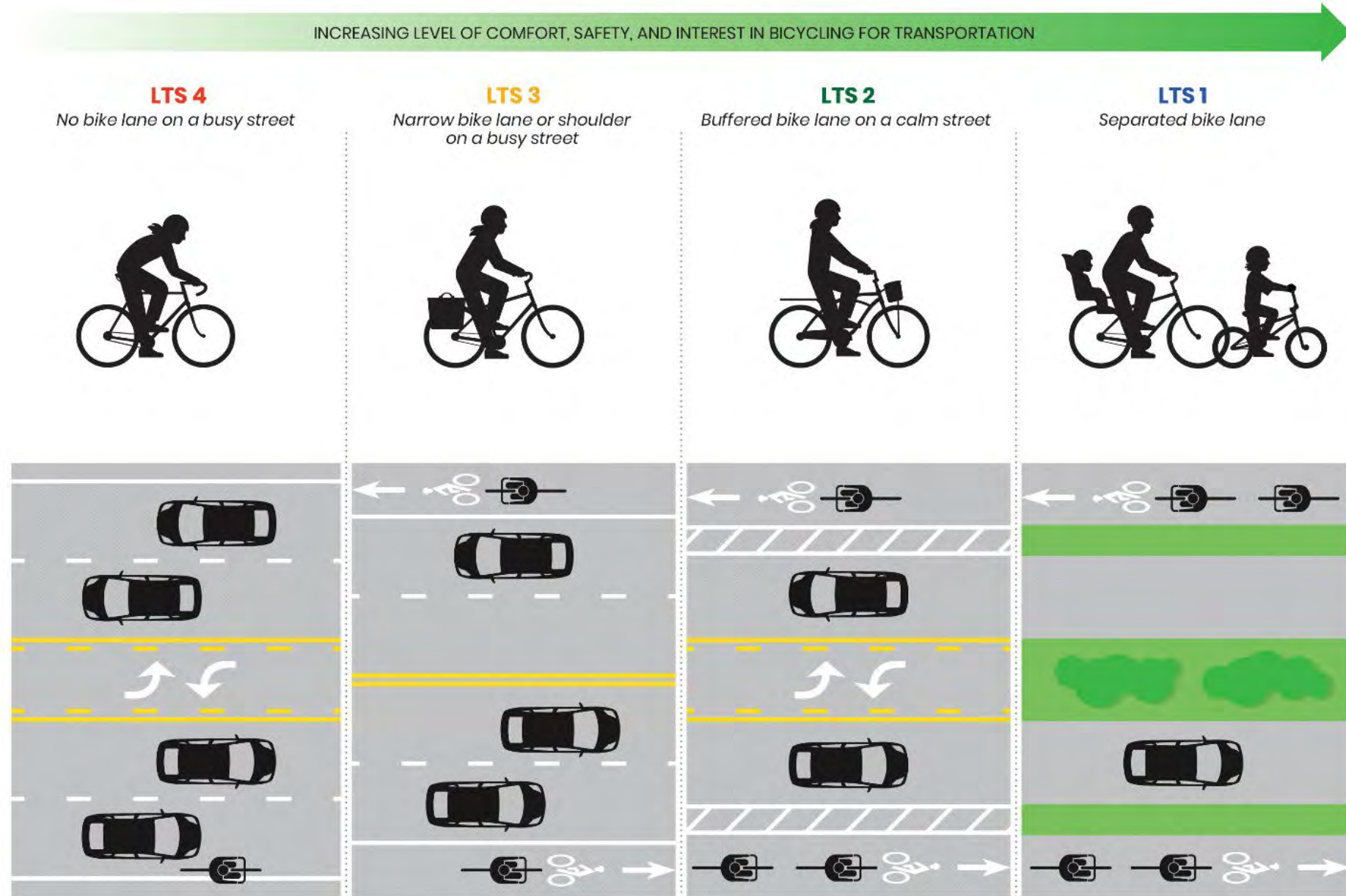
Network Comfort

alta

Network Comfort
Bicycle Level of Traffic Stress

DEFINITION:

Estimates the level of comfort for people biking on a given roadway segment
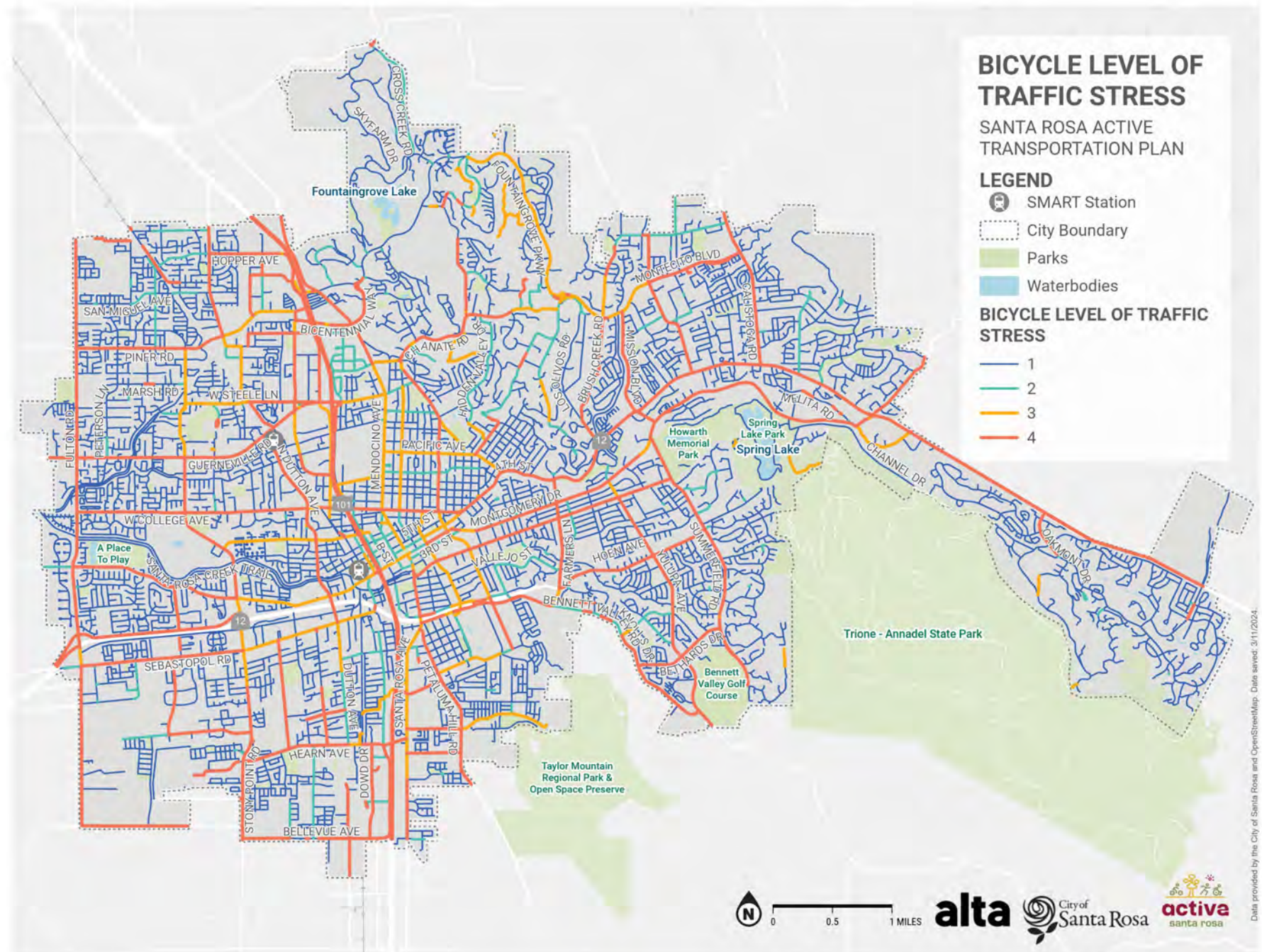
VARIABLES:

- Presence/type of bicycle facilities
- Posted speed limit
- Presence and width of on-street parking
- Number of travel lanes
- Presence of trails

INCREASING LEVEL OF COMFORT, SAFETY, AND INTEREST IN BICYCLING FOR TRANSPORTATION

LTS 4
No bike lane on a busy street

LTS 3
Narrow bike lane or shoulder on a busy street

LTS 2
Buffered bike lane on a calm street

LTS 1
Separated bike lane

alta

Network Comfort
Bicycle Level of Traffic Stress

- Most major roadways in Santa Rosa represent high-stress environments for people biking

- Local roads and shared use paths provide lower stress environments for people biking

- Truncated/fragmented network of comfortable facilities

Adapted from 2012 Mineta Transportation Institute Report 11-19: Low-Stress Bicycling and Network Connectivity

BICYCLE LEVEL OF TRAFFIC STRESS

SANTA ROSA ACTIVE TRANSPORTATION PLAN

LEGEND
- SMART Station
- City Boundary
- Parks
- Waterbodies

BICYCLE LEVEL OF TRAFFIC STRESS
- 1
- 2
- 3
- 4

Network Comfort
Pedestrian Level of Traffic Stress

DEFINITION:

Estimates the level of comfort for people walking on a given roadway segment

VARIABLES:

- Sidewalk Presence and completeness
- Sidewalk width and condition
- Sidewalk buffer width
- Sidewalk buffer type

INCREASING LEVEL OF COMFORT, SAFETY, AND INTEREST FOR PEDESTRIANS IN TRANSPORTATION

LOW COMFORT
PLTS 4

High traffic stress experienced and would be used only by able-bodied adults with limited route choices.

LOW COMFORT
PLTS 3

Moderately uncomfortable roadways, where most able-bodied adults would feel uncomfortable but safe.

HIGH COMFORT
PLTS 2

Slightly less comfortable roadways that require more attention to traffic and are suitable for children over 10, teens and adults.

HIGH COMFORT
PLTS 1

Roadways where people of all ages and abilities would feel comfortable walking and require little attention to traffic.

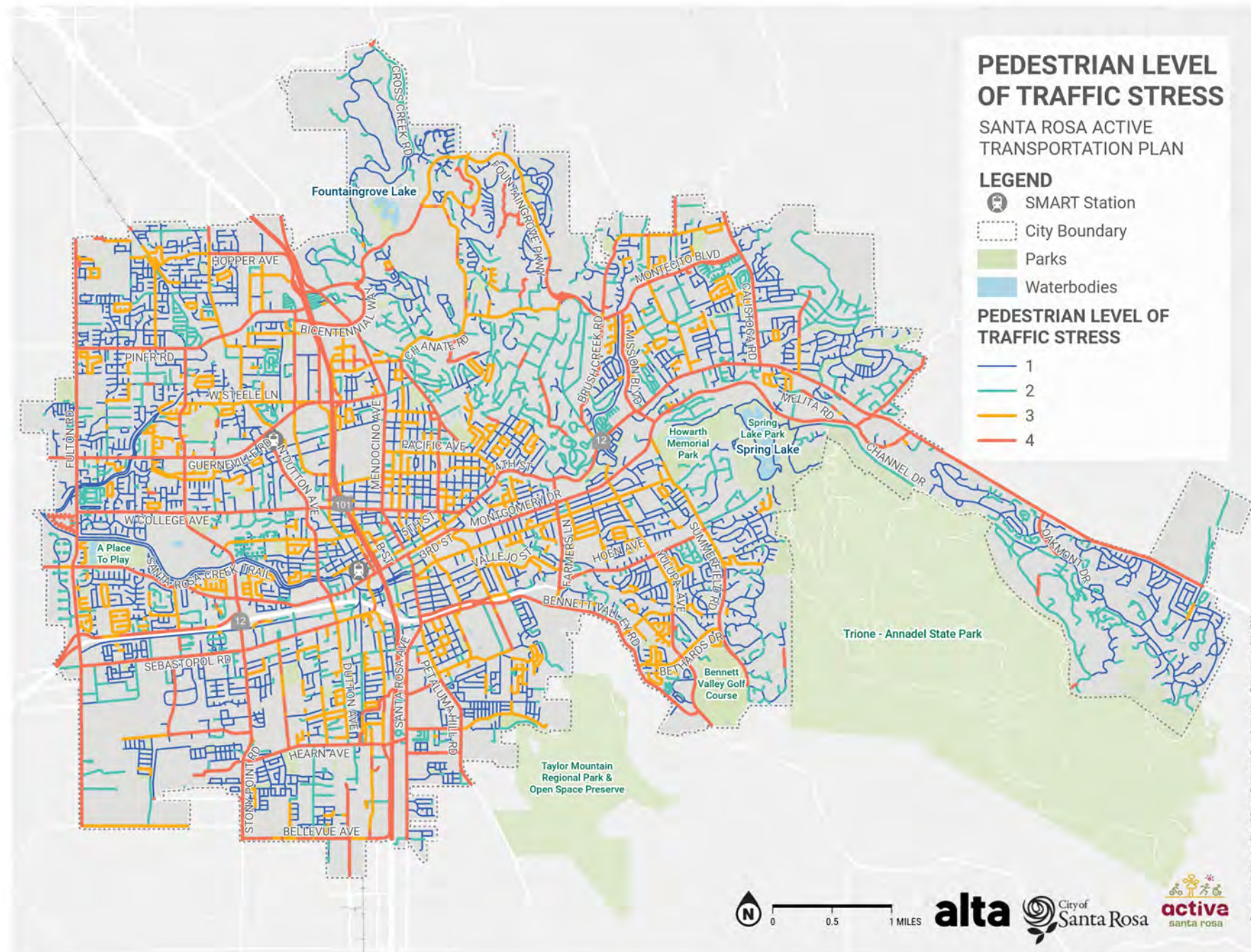Adapted from Oregon Department of Transportation's Analysis Procedures Manual

alta

Network Comfort
Pedestrian Level of Traffic Stress

Most major roadways (similar to BLTS) represent high-stress environments for people walking and rolling, despite many of them having sidewalks. Some contributing factors include:

- Lack of a buffer between people walking and driving
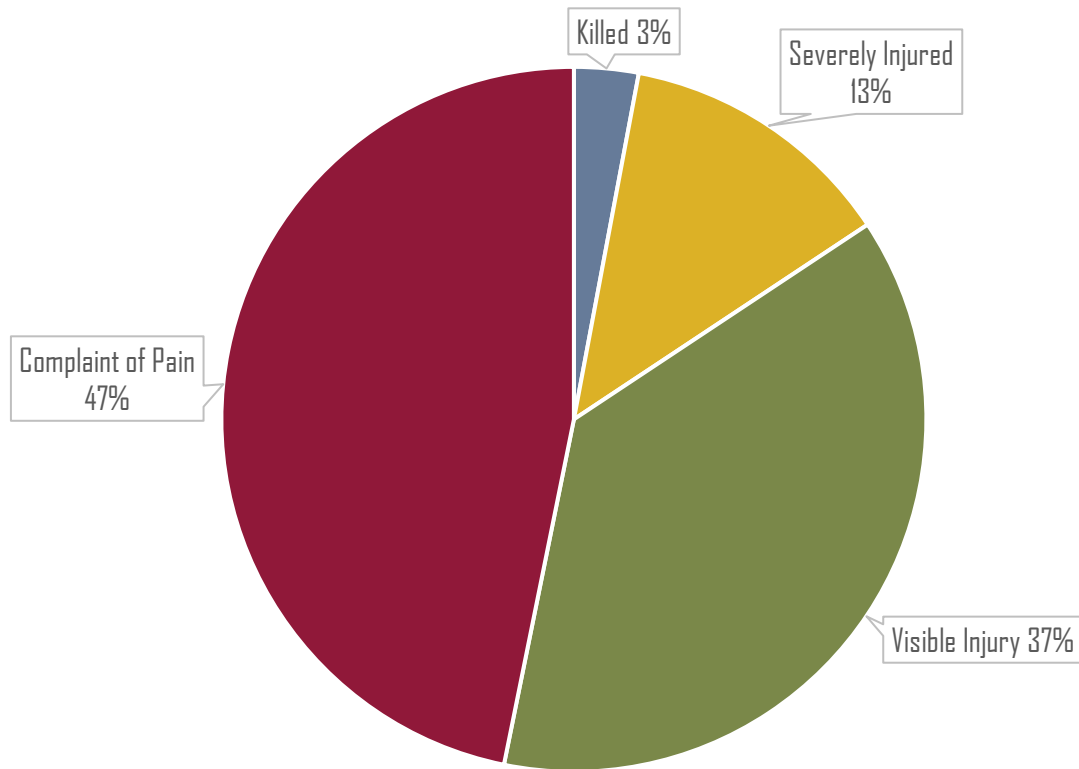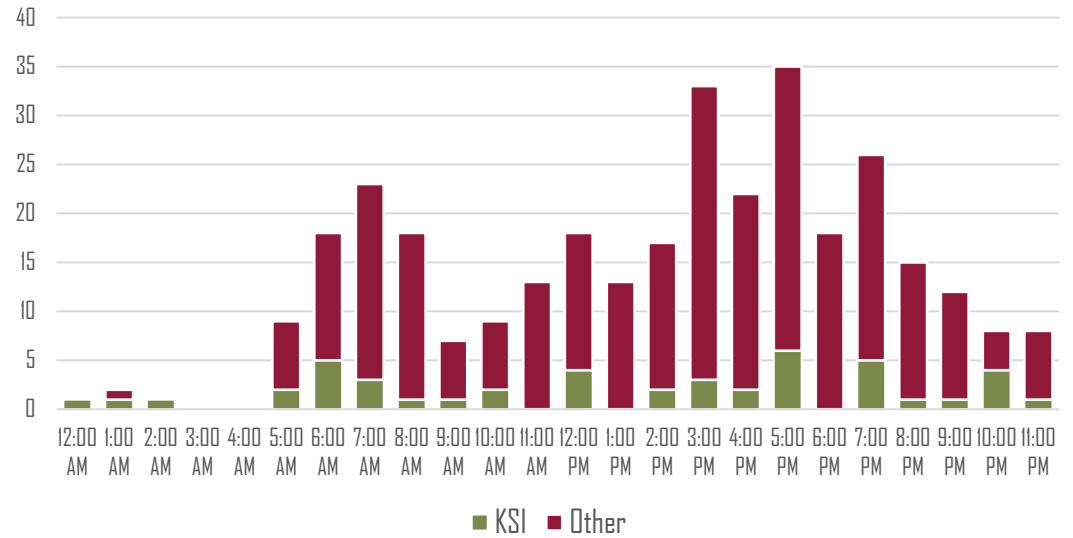
- Faster speeds (30mph +)

- Wider roadway widths

Adapted from Oregon Department of Transportation's Analysis Procedures Manual

PEDESTRIAN LEVEL OF TRAFFIC STRESS

SANTA ROSA ACTIVE TRANSPORTATION PLAN

LEGEND
- SMART Station
- City Boundary
- Parks
- Waterbodies

PEDESTRIAN LEVEL OF TRAFFIC STRESS
- 1
- 2
- 3
- 4

Collision Analysis

alta

Collision Analysis
Trends

Type of Injury

Pie chart — Type of Injury:
- Killed 3%
- Severely Injured 13%
- Visible Injury 37%
- Complaint of Pain 47%

Time of Day (Weekday)

Stacked bar chart by hour (12:00 AM – 11:00 PM), legend: KSI, Other

Time of Day (Weekend)

Stacked bar chart by hour (12:00 AM – 11:00 PM), legend: KSI, Other

City of Santa Rosa

active santa rosa

alta

Collision Analysis
Trends

LOCATION:

57% bike/ped along **corridors**
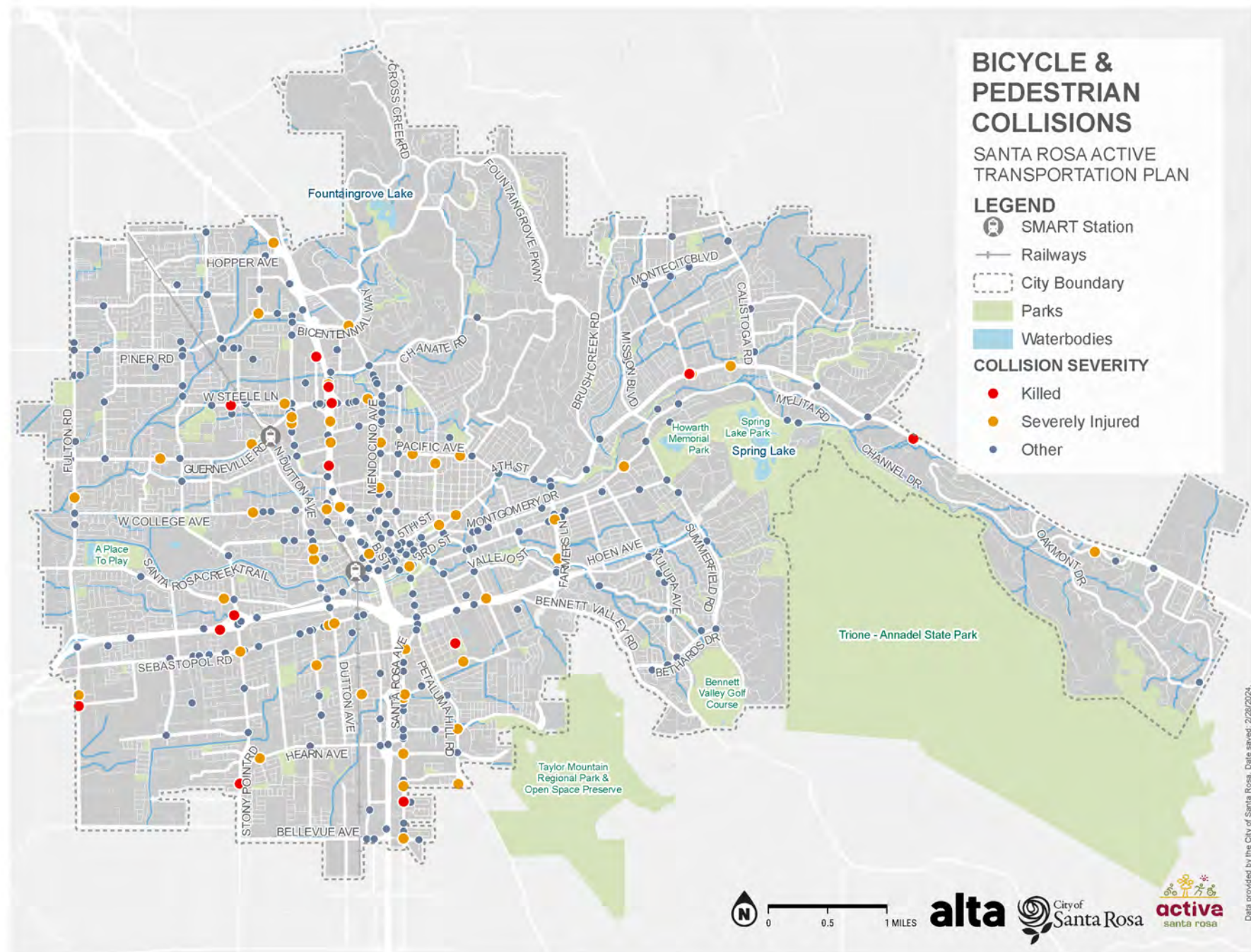
43% bike/ped at **intersections**

SPEED:

Higher number of collisions along slower roadways (less than 44 MPH signed)

Higher number of KSIs occurred along roadways with 44+ MPH

CONTRIBUTING FACTORS:

People walking in a crosswalk (57%)

Bicyclist right-of-way (people driving failed to yield to bicyclists) (66%)

Source: Transportation Injury Mapping System (TIMS) (2017 - 2021)

BICYCLE & PEDESTRIAN COLLISIONS

SANTA ROSA ACTIVE TRANSPORTATION PLAN

LEGEND
- SMART Station
- Railways
- City Boundary
- Parks
- Waterbodies

COLLISION SEVERITY
- Killed
- Severely Injured
- Other

Collision Analysis
Hot Spots – Number of KSI (walk + bike)

CORRIDORS

Corridor Segments	Segment Limits	KSI Collisions
Santa Rosa Avenue	Highway 101 to Bellevue Avenue	9
Steele Lane	Coffey Lane to Mendocino Avenue	5
SR 12	Middle Rincon Road to Brand Road	4
Stony Point Road	West Third Street to Sebastopol Road	3
College Avenue	Clover Drive to Humboldt Street	3
Sebastopol Road	McMinn Avenue to Boyd Street	3
Sebastopol Road	Corporate Center Parkway to Hampton Way	3
Range Avenue	Edwards Avenue to Guerneville Road	2

INTERSECTIONS

Intersection	KSI Collisions
Steele Lane and Highway 101	4
Santa Rosa Avenue and Baker Avenue	3
SR 12 and Middle Rincon Road	2
Sebastopol Road and Dutton Avenue	2

Source: Transportation Injury Mapping System (TIMS) (2017 -2021)
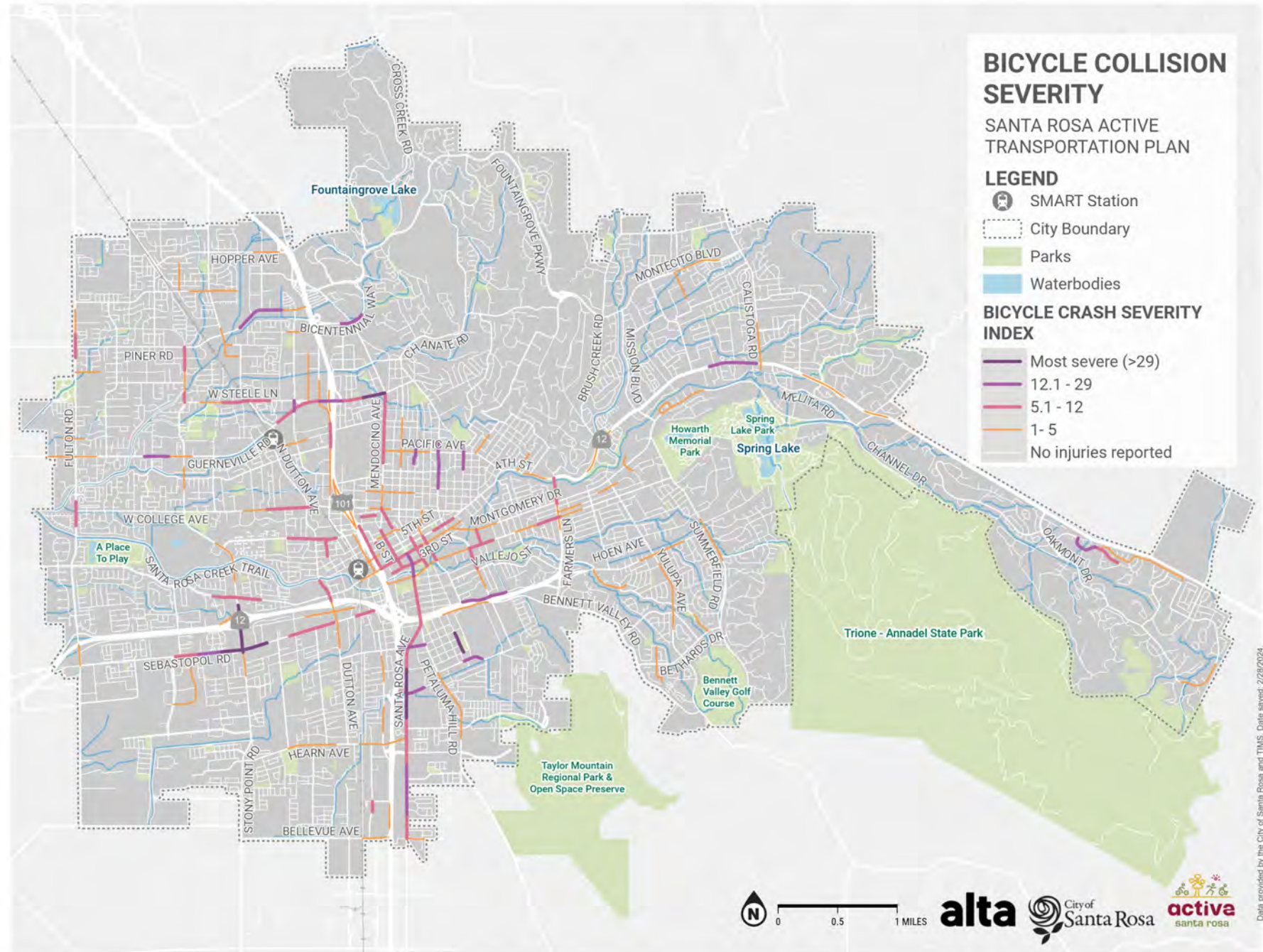
Collision Analysis
BICYCLE Severity

INTERSECTIONS

- Sebastopol Road & Stony Point Road
- Colgan Avenue & Santa Rosa Avenue
- Guerneville Road & Mendocino Avenue

CORRIDORS

- Santa Rosa Avenue
- Sebastopol Road
- Guerneville Road
- Cleveland Avenue

Source: Transportation Injury Mapping System (TIMS) (2017 -2021)

BICYCLE COLLISION SEVERITY

SANTA ROSA ACTIVE TRANSPORTATION PLAN

LEGEND
- SMART Station
- City Boundary
- Parks
- Waterbodies

BICYCLE CRASH SEVERITY INDEX
- Most severe (>29)
- 12.1 - 29
- 5.1 - 12
- 1- 5
- No injuries reported

Collision Analysis
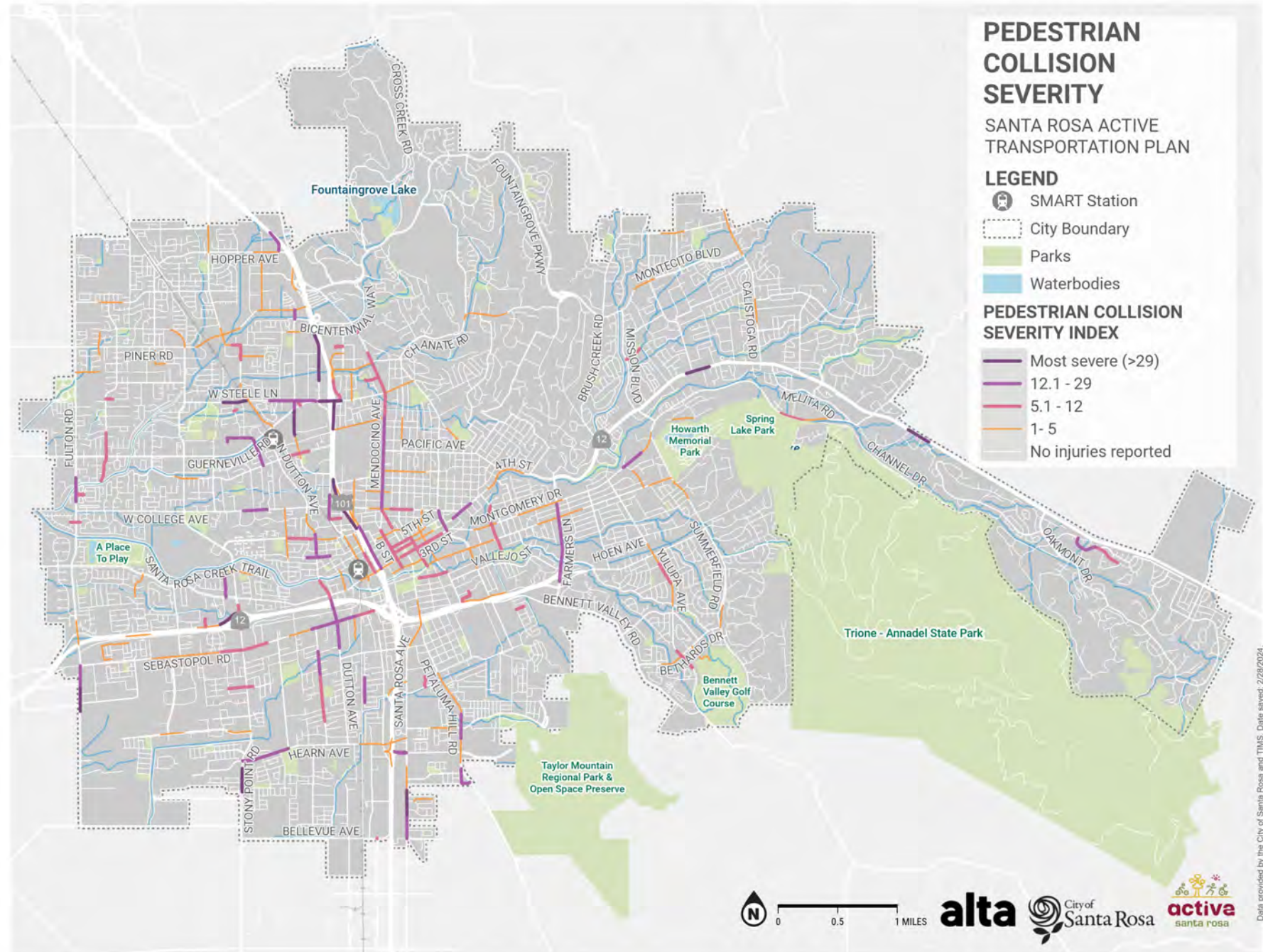## PEDESTRIAN Severity

INTERSECTIONS

- W Steele Ln & Highway 101
- Sebastopol Rd & Dutton Ave
- W Steele Ln & Range Ave
- Stony Point Rd & Hearn Ave

CORRIDORS

- Cleveland Avenue
- West Steele Lane
- Santa Rosa Avenue
- Stony Point Road
- Sebastopol Road
- Portions of SR 12

PEDESTRIAN COLLISION SEVERITY
SANTA ROSA ACTIVE TRANSPORTATION PLAN

LEGEND
- SMART Station
- City Boundary
- Parks
- Waterbodies

PEDESTRIAN COLLISION SEVERITY INDEX
- Most severe (>29)
- 12.1 - 29
- 5.1 - 12
- 1 - 5
- No injuries reported
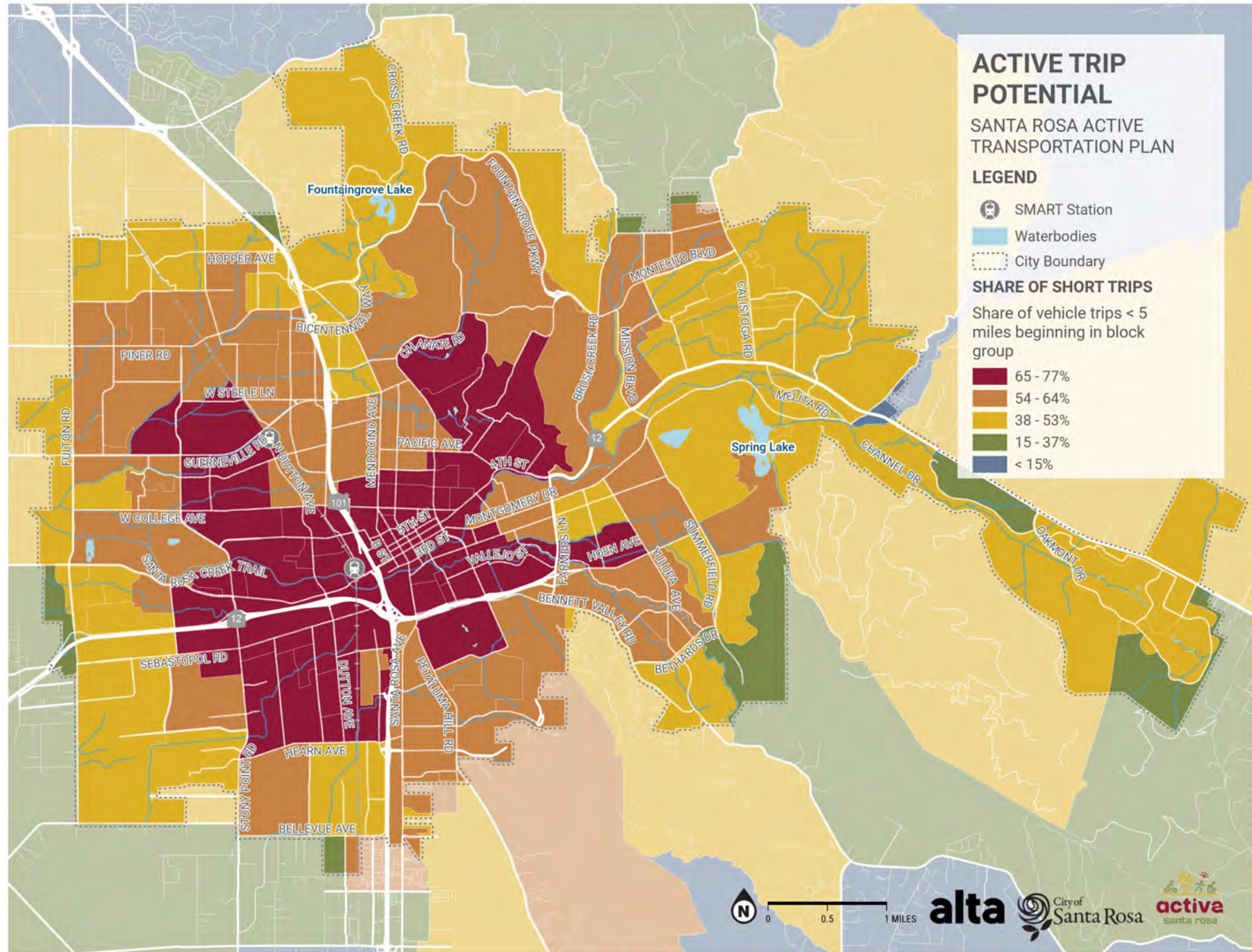
Active Trip Potential

alta

Active Trip Potential

DEFINITION:

Proportion of all trips that may reasonably be made by active modes based on reasonable distances:

- < 1 mile –Walking
- 1-3 miles – Biking
- 3-5 miles – E-bikes/Scooters

FINDINGS:

- High active-trip potential concentrated in City Core
- **42% of vehicle trips in the city are less than 5 miles**

ACTIVE TRIP POTENTIAL
SANTA ROSA ACTIVE TRANSPORTATION PLAN

LEGEND
- SMART Station
- Waterbodies
- City Boundary

SHARE OF SHORT TRIPS
Share of vehicle trips < 5 miles beginning in block group

- 65 - 77%
- 54 - 64%
- 38 - 53%
- 15 - 37%
- < 15%

Question & Answer

alta

Next Steps

alta

Next Steps

- Phase 1 Public Engagement (April-June)
  - Pop-up events
  - Interactive Map
  - Public Workshop
- Project Definition & Recommendations (Summer 2024)

active

santa rosa