

Prepard For:



Prepared By:





### **Table of Contents**

1.0 In	troduction	4
1.1	Purpose / Background	4
1.2	Organization of Report	
1.3	Legislative Framework	5
1.4	Document Review	6
2.0 De	emographics / Community Profile	8
2.1	Overview	8
2.2	Demographic Summary	13
2.3	Commuter Profile	18
2.4	Demand	22
2.5	Communities of Concern	26
2.6	Transportation Demand Management	31
3.0 Pe	edestrian Mobility	33
3.1	Network Connectivity	33
3.2	Network Quality	40
3.3	Safety	43
4.0 Bi	cycle Mobility	48
4.1	Network Connectivity	48
4.2	Network Quality	52
4.3	Safety	60
5.0 Pu	ıblic Transportation Mobility	64
5.1	Network Connectivity	64
5.2	Transit Stop & Network Quality	68
5.3	Safety	72
6.0 Cd	onclusion / Key Findings	78
	, ,	
Appe	ndices	
	ix A – Literature Review	
	ix B - Pedestrian Environment Score Inputs	
пррепа	A D Tredestrian Environment Goore inputs	
List of	Figures	
Figure 2	2.1 - Desert Hot Springs within the Region	9

Figure 2.2 - Existing Land UsesFigure 2.3 - Key Destinations for Active Transportation11Figure 2.4 - Posted Speed Limits12Figure 2.5 - Population Density14Figure 2.6 - Youth Population



Figure 2.7 - Senior Population	. 16
Figure 2.8 - Zero-Vehicle Households	. 17
Figure 2.9 - Employment Density	. 19
Figure 2.10 - Where Employees in Desert Hot Springs Live	. 20
Figure 2.11 - Where Desert Hot Springs Residents Work	. 21
Figure 2.12 - Active Transportation Trip Generator Submodel	. 24
Figure 2.13 - Active Transportation Trip Attractor Submodel	. 26
Figure 2.14 - Active Transportation Propensity Model	. 27
Figure 2.15 - CalEnviroScreen 4.0	. 29
Figure 2.16 - USDOT Equitable Transportation Community (ETC) Explorer	. 30
Figure 2.17 - Caltrans Equity Index (EQI)	. 32
Figure 3.1 - Sidewalk Inventory	. 34
Figure 3.2 - Curb Ramp Inventory	. 35
Figure 3.3 - Marked Crosswalk Inventory	. 36
Figure 3.4 - High Pedestrian Activity Areas (Replica)	. 38
Figure 3.5 - High Pedestrian Activity Areas (Strava)	. 39
Figure 3.6 - Pedestrian Environment Score (PES)	. 41
Figure 3.7 - Pedestrian Collisions by Frequency	. 45
Figure 3.8 - Pedestrian Collisions by Injury Severity	. 46
Figure 4.1 - Existing Bicycle Facilities	. 51
Figure 4.2 - High Bicycle Activity Areas (Replica)	. 53
Figure 4.3 - High Bicycle Activity Areas (Strava)	. 54
Figure 4.4 - Bicycle Level of Traffic Stress (LTS)	. 57
Figure 4.5 - Destinations within Half-Mile of Populated Census Blocks	. 58
Figure 4.6 - Low Stress Connections to Key Destinations	. 59
Figure 4.7 - Bicycle Collisions by Frequency	. 61
Figure 4.8 - Bicycle Collisions by Injury Severity	
Figure 5.1 - Existing Public Transit Routes	. 65
Figure 5.2 - Average Daily Boardings and Alightings	. 66
Figure 5.3 - First/Last Mile Sidewalk Gaps	. 73
Figure 5.4 - Pedestrian Connectivity Ratio from Transit Stops	
Figure 5.5 - First/Last Mile High Bicycle Level of Traffic Stress Locations	. 75
Figure 5.6 - Bicycle Connectivity Ratio from Transit Stops	. 76
Figure 5.7 - Bicycle and Pedestrian Collisions with 500' of a Transit Stop	. 77
Figure 6.1 - Opportunities and Constraints	. 80
List of Tables	
	40
Table 2.1 - Vehicle Availability by Household	
Table 2.2 - Commute Mode Share	
Table 2.3 - Active Transportation Trip Generator Submodel Inputs	. 22



Table 2.4 - Active Transportation Trip Attractor Submodel Inputs	25
Table 3.1 - Base-Level PES Methodology for Segments	40
Table 3.2 - Sidewalk Inventory PES Rating	42
Table 3.3 - Base-Level PES Methodology for Marked Crosswalk Locations	
Table 3.4 - Marked Crosswalk Locations by PES Rating	42
Table 3.5 - OTS Ranking Comparison	43
Table 3.6 - Leading Pedestrian Collision Causes	44
Table 3.7 - Leading Pedestrian Collision Violation Codes	47
Table 4.1 - Bicycle Facility Design Classification	48
Table 4.2 - The Four Types of Cyclists	49
Table 4.3 - Existing Facility Mileage by Classification	50
Table 4.4 - Level of Traffic Stress Classifications and Descriptions	55
Table 4.5 - Mileage by LTS Score	56
Table 4.6 - CA Office of Traffic Safety Bicycle Rankings	60
Table 4.7 - Leading Bicycle Collision Causes	63
Table 4.8 - Leading Bicycle Collision Violation Codes	63
Table 5.1 - Desert Hot Springs Transit Stops and Ridership	67
Table 5.2 - Recommended Amenities by Daily Boardings	68
Table 5.3 - Transit Stop Amenities	69



## 1.0 Introduction

The Desert Hot Springs Active Transportation Plan (ATP) is an update of the City of Desert Hot Springs Bicycle & Pedestrian Master Plan, adopted in 2016. The update builds on the foundation of the 2016 plan and elements of the City's 2008 Safe Routes to School Plan while responding to evolving community needs and priorities involving safety, connectivity, and equity needs—particularly for a community that has grown since the previous plan was adopted. The update will also ensure recommendations are consistent with recent legislation and design guidelines.

The ATP will serve as a framework to guide infrastructure implementation and programmatic recommendations that provide safe, efficient, and enjoyable environments for active mobility throughout the city.

The ATP will play a vital role in improving the viability of walking and bicycling to destinations in Desert Hot Springs (DHS) by identifying, vetting, and expediting the implementation of transformative bicycle and pedestrian infrastructure essential for increasing transportation options among people of different ages and abilities.

Enhancing the city's bicycle and pedestrian environments will support the recently adopted General Plan Update of the Land Use Element. In particular, the planned intensification of land uses, which, when built out, will improve access to daily necessities within a smaller area, reducing the distance some people are required to travel and broadening the feasibility of various travel options. The General Plan supports the reduction of pervasive driving in Desert Hot Springs, which reinforces regional and statewide climate action, a broadly recognized priority for public agencies everywhere.

# 1.1 Purpose / Background

The DHS ATP will address connectivity challenges, safety issues, and establish a prioritized project list. Once adopted, the document will serve as an instrument for facilitating the timely implementation of transformative bicycle and pedestrian-focused improvements citywide. Recommendations will be tailored to the current and anticipated needs of the residents, employees, and visitors to the City.

The DHS ATP seeks to address connectivity challenges for residents, employees, and visitors citywide, with an emphasis on disadvantaged communities. These challenges – expanded upon in Sections 3 through 6 – frequently result from a dearth of infrastructure, such as sidewalks, curb ramps, or bicycle facilities, alongside high-speed roads, which results in discomfort or collisions for those traveling outside a vehicle. The city seeks to increase access to schools, parks, transit stops, and retail and commercial centers, while improving comfort and safety for a wide range of potential pedestrians and cyclists. The ATP will further facilitate enhanced regional connectivity to the nearby communities of Palm Springs, Cathedral City, and the Greater Coachella Valley, all of whom may serve as future project partners during implementation.

Implementation of the ATP will serve to aid the city in providing:

- Safer street designs
- Access to a greater range of alternative mobility choices
- Establishment of a more sustainable, resilient, and equitable community
- Improvements to mobility and connectivity
- Reductions in greenhouse gas emissions
- Improvements to air quality and public health and safety



This Existing Conditions Report is one of the initial steps in the planning process. It serves to document the current state of active transportation within Desert Hot Springs by examining the physical infrastructure, the quality of pedestrian, bicycle and transit facilities in relation to the surrounding roadway environment, user safety, and the potential for demand.

This document will be supplemented with a series of public outreach activities that provide an opportunity to learn from the community about their issues and opportunities related to walking and riding a bike. The information and findings from this initial stage will inform the development of ATP recommendations.

## 1.2 Organization of Report

Following this introductory chapter, which also includes a description of the legislative framework and overview of the document review, the Existing Conditions Report is organized into the following chapters:

- Demographics / Community Profile gives an overview of the existing land uses and roadway network, Desert Hot Springs' demographics and the commuter characteristics of residents and employees.
- *Pedestrian Mobility* describes the existing pedestrian environment in terms of network connectivity, quality of the infrastructure, and safety.
- Bicycle Mobility describes the existing bicycle environment in terms of network connectivity, quality of the infrastructure, and safety.
- **Public Transportation Mobility** describes the existing transit environment in terms of network connectivity, quality of the infrastructure, and safety.
- Conclusion / Key Findings summarizes the key opportunities and constraints identified throughout the document.

## 1.3 Legislative Framework

Several key planning efforts and legislative actions have redefined the way community transportation planning is carried out, including Assembly Bill 1358: The Complete Streets Act, Senate Bill 375: The Sustainable Communities and Climate Protection Act, and Assembly Bill 32: The Global Warming Solutions Act. A unifying theme among these documents is to achieve a more balanced, multimodal transportation system that increases travel mode options for all users, with an emphasis on active transportation and public transportation.

Assembly Bill 32: The Global Warming Solutions Act was adopted in 2006 and updated by Senate Bill 32 in 2016. It codified California's pursuit of a low-carbon, sustainable future. The updated Bill enacted a mandate to reduce California's greenhouse gas emissions to 1990 levels by 2020, which would constitute a 15 percent overall reduction relative to baseline conditions. The updated bill directed a reduction to 40% below 1990 levels by 2030. Assembly Bill 1279: The California Climate Crisis Act, adopted in 2022, mandates that California further reduce greenhouse gas emissions to 85% below 1990 levels by 2045.

In 2008, Senate Bill 375: The Sustainable Communities and Climate Protection Act was adopted, requiring California Metropolitan Planning Organizations (MPOs) to formulate a "sustainable communities strategy" (SCS) as part of their regional transportation plans, specifically identifying



how the region will achieve targeted reductions in greenhouse gas emissions (GHG) from automobiles and light trucks.

Assembly Bill 1358: *The Complete Streets Act* went into effect in California in 2011, requiring the legislative body of a city or a county to plan for a balanced, multimodal transportation network that meets the needs of all roadway users, defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context of the general plan.

A statewide Active Transportation Program was created in 2013 by Senate Bill 99 and Assembly Bill 101 to encourage the increased use of active transportation modes. Funds from this program are competitively awarded through statewide grant cycle periods led by Caltrans.

The importance of planning for active transportation is also evident in local policy. The Desert Hot Springs General Plan Mobility & Infrastructure Element (2020) emphasizes improving existing bicycle and pedestrian facilities as well as providing multimodal infrastructure when developing new roadways. This is highlighted within the following goals:

- Goal MI-1: An inclusive mobility framework that safely and efficiently moves and connects people, destinations, vehicles, and goods
- Goal MI-2: Streets that are designed and managed to enable safe access for all users: pedestrians, equestrians, bicyclists, motorists, and transit riders of all ages and abilities
- Goal MI-3: Streets and sidewalks that prioritize safety
- Goal MI-4: Connected pedestrian and bicycle network
- Goal MI-5: Reduction in total vehicle miles traveled to help improve local air quality and reduce greenhouse gas emissions

### 1.4 Document Review

This section summarizes the intent of the document and policy review and identifies the documents included. The full document review can be found in **Appendix A**.

Reviewing adopted documents establishes a basis to guide policies and infrastructure recommendations. The ATP is intended to complement and enhance previous efforts by building on and aligning with previously identified recommendations, goals, and policies.

The review informs the understanding of existing conditions, as several planning efforts identify needs and issues related to active transportation. The review will also be heavily utilized in the development of infrastructural recommendations, helping to ensure feasibility and consistency with adopted guiding documents and connectivity to infrastructure in adjacent jurisdictions.

The following documents are included in the review:

- City of Desert Hot Springs Safe Routes to School Plan (2008)
- City of Desert Hot Springs Bicycle & Pedestrian Master Plan (2016)
- City of Desert Hot Springs General Plan Mobility and Infrastructure Element (2020)
- Caltrans' Strategic Plan (2020-2024)
- California Transportation Plan 2050 (2021)
- California State Bicycle and Pedestrian Plan (2017)
- SCAG's Regional Transportation Plan/Sustainable Communities Strategy (2024)



- CVAG Active Transportation Plan Desert Recreation District Regional Trails Corridor Study (2009) Riverside County Circulation Element (2020)



# 2.0 Demographics / Community Profile

This chapter provides an overview of the City of Desert Hot Springs, including its locational setting in the region, built environment characteristics, demographics, and commuter information. The chapter concludes by identifying concentrations of disadvantaged populations within the City.

### 2.1 Overview

The City of Desert Hot Springs is located in northern Riverside County, California, within the Coachella Valley. It is approximately 60 miles east of the City of Riverside and approximately 30 miles northwest of the City of Coachella. Desert Hot Springs is bordered almost in entirety by unincorporated Riverside County, with a small portion to the south bordering the City of Palm Springs and the City of Cathedral City. Interstate 10 (I-10) borders the City on the south and State Route 62 (SR-62) traverses the City in a north-south direction in the west portion of Desert Hot Springs. Desert Hot Springs' location within the region can be seen in **Figure 2.1**.

There are several factors which make Desert Hot Springs an ideal location for walking and riding bicycles, including the dry and sunny Southern California climate, flat terrain, and a relatively condensed urbanized center. The existing roadway network is organized in a grid pattern, making it easy to navigate while providing numerous alternative routes, characteristics that support pedestrian and bicycle mobility while also providing a strong foundation to build future facilities.

The existing land uses are displayed in **Figure 2.2**. Like most cities in the region, Desert Hot Springs is largely comprised of residential land uses and open space, with commercial and industrial uses concentrated along select corridors, such as Palm Drive, Pierson Boulevard, and Hacienda Avenue; light industrial is mostly concentrated on the southwestern portion of the City. Open space and conservation land uses are prominent in the west portion of the City, as well as a portion going from north to south along the urbanized concentrated area.

Common attractors for active transportation trips within the City include Desert Hot Springs Recreation, Carl May Community Center, the City Hall, Cabot's Pueblo Museum, and the City's library, as well as schools, trails, and neighborhood parks. As can be seen in **Figure 2.3**, these key destinations are located mainly along Pierson Boulevard and Palm Drive.

The City is largely undeveloped, however, according to the City of Desert Hot Springs General Plan, it is forecasted that, by 2040, the City will nearly triple in population from its current size. Adapting to that growth will undoubtedly result in changes to the City's built environment and connecting streets. The General Plan allows for new developments on both the urban fringe and infill locations.

**Figure 2.4** identifies posted speed limits. Many of the arterial roadways comprising the citywide street grid are 40 to 55 MPH. These higher-speed arterials, which are often uncomfortable or unsafe for those on foot or bike, are the backbone of the roadway network and are often the only option to make connections between neighborhoods and across major infrastructure features such as SR-62 and I-10 to adjacent jurisdictions.



38 Twentynine Palms 62 San Gorgonio Mountain Yucca Valley 62 San Bernardino County Riverside County Yucaipa 10 Desert Hot Springs Joshua Tree National Park 60 10 Beaumont Palm Springs Cathedral City 243 Mt San Jacinto San Jacinto 10 Palm Desert Hemet Indio 111 74 Coachella 10 La Quinta 74 10 Miles Source: SCAG, CVAG, CR Associates (2025)

Figure 2.1 - Desert Hot Springs within the Region



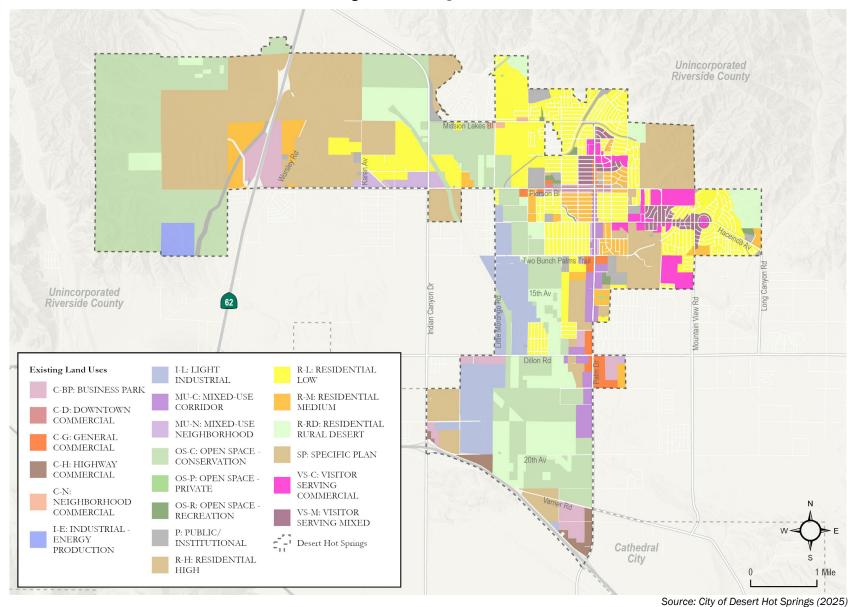


Figure 2.2 - Existing Land Uses



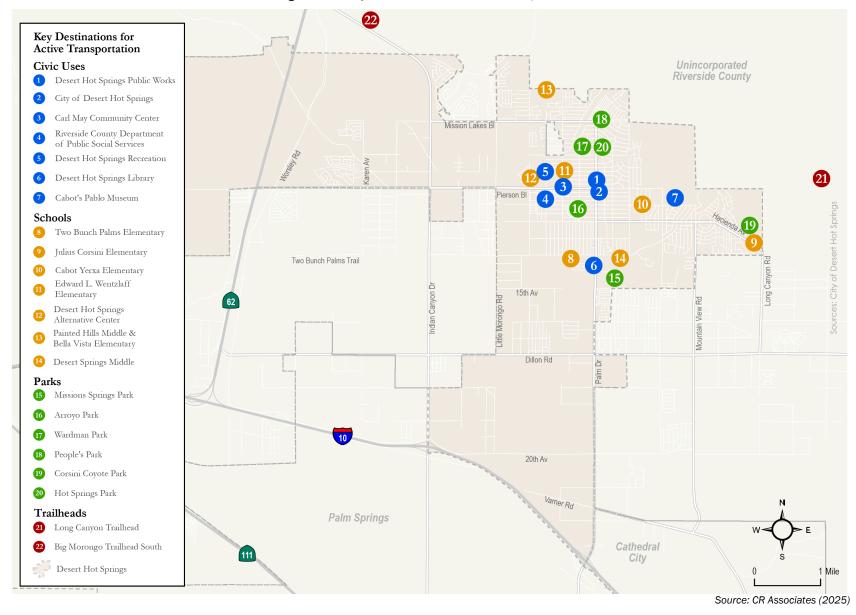


Figure 2.3 - Key Destinations for Active Transportation



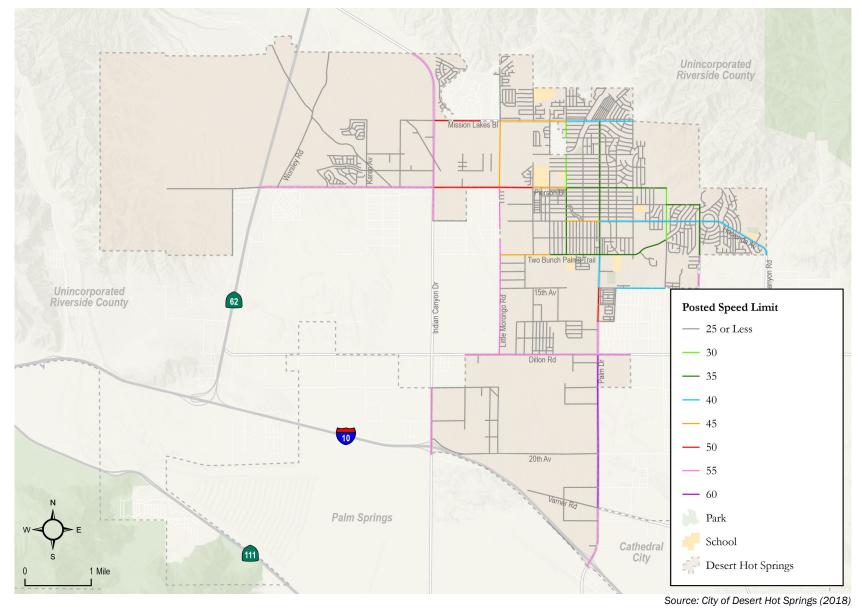


Figure 2.4 - Posted Speed Limits



## 2.2 Demographic Summary

Demographic information is used to understand the people who live and work in Desert Hot Springs today. Population and employment density, age groups, and vehicle ownership are described in this section. Data was obtained from the US Census American Community Survey (ACS) 5-Year Estimates 2019-2023 and 2022 US Census Longitudinal Employer-Household Dynamics (LEHD).

### **Population and Employment Density**

Residential and employment concentrations, or locations where people live and work, are important considerations in the planning process. Everyday active transportation trips frequently originate from residences and commonly end at places of employment, schools, or commercial/services. Identifying higher concentrations of these land uses can help build an understanding of travel patterns.

**Figure 2.5** displays residential population density by Census Block Group within Desert Hot Springs. Areas with higher densities tend to generate more trips. Residential population densities are concentrated in the urbanized area of the City, around downtown. Areas with the highest densities can be found surrounding the intersection of Palm Drive and Hacienda Avenue, with additional concentrations to the east and west of Palm Drive continuing north. These areas are in close proximity to the key destinations for active transportation previously identified, including the Hacienda Palms Shopping Center, located at Palm Drive and Hacienda Avenue.

#### **Youth and Senior Populations**

Youth (ages 5-17) and senior (age 65 and older) populations have more limited mobility options than the general adult population, making them more vulnerable and reliant on alternative transportation modes and infrastructure, therefore requiring additional consideration when planning transportation networks.

**Figure 2.6** shows the percentage of the population that are youths by Census Block Group, while **Figure 2.7** presents the distribution of seniors. These trends tend to shift over time as neighborhoods age, with youths frequently having relatively higher representation in newer developments. Census data estimates that youth comprised approximately 27 percent of the population in Desert Hot Springs and seniors accounted for 12 percent. Youths are spread throughout the City, with the highest concentration in the City center, and seniors are more concentrated in the northern periphery.

#### **Zero Household Vehicles**

As shown in **Figure 2.8**, Census Blocks with more than 10% of households without a vehicle are predominantly located near downtown and a small concentration is to the north along Indian Canyon Drive. These areas are likely to have a relatively greater reliance on walking, bicycling, and/or transit for daily trips. **Table 2.1** shows a comparison in vehicle availability by household between the City of Desert Hot Springs and Riverside County. As shown, the percentage of households with zero vehicle availability in the City is nearly double the percentage Countywide.

Table 2.1 - Vehicle Availability by Household

	Zero Vehicle Households	Total Households	% Zero Vehicle Households		
Desert Hot Springs	996	11,432	8.7%		
Riverside County	37,996	791,757	4.8%		
Source: US Census American Community Survey (ACS) 5-Year Estimates 2					



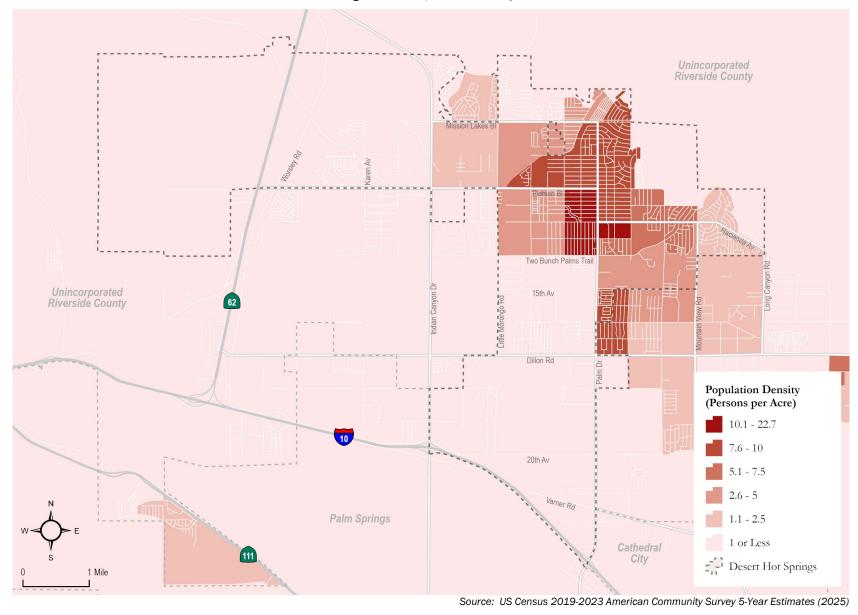


Figure 2.5 - Population Density



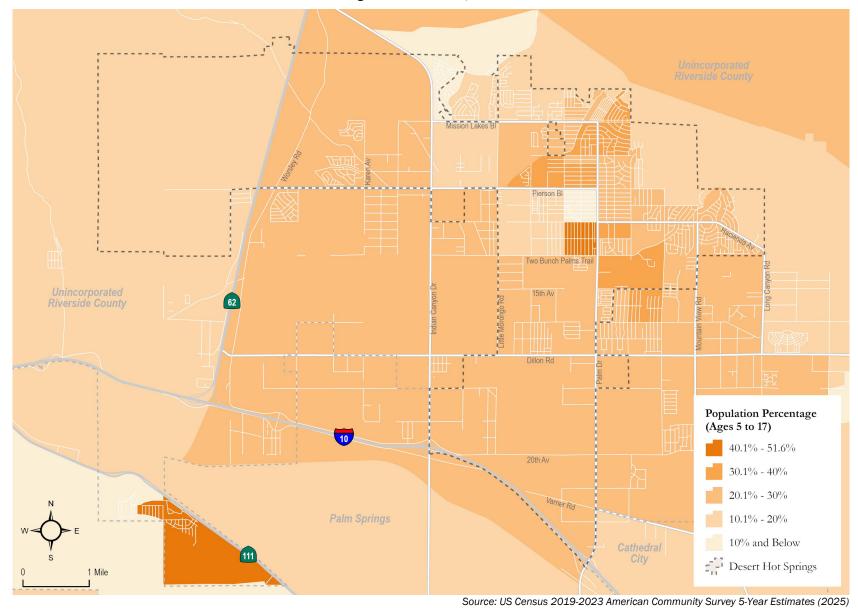


Figure 2.6 - Youth Population



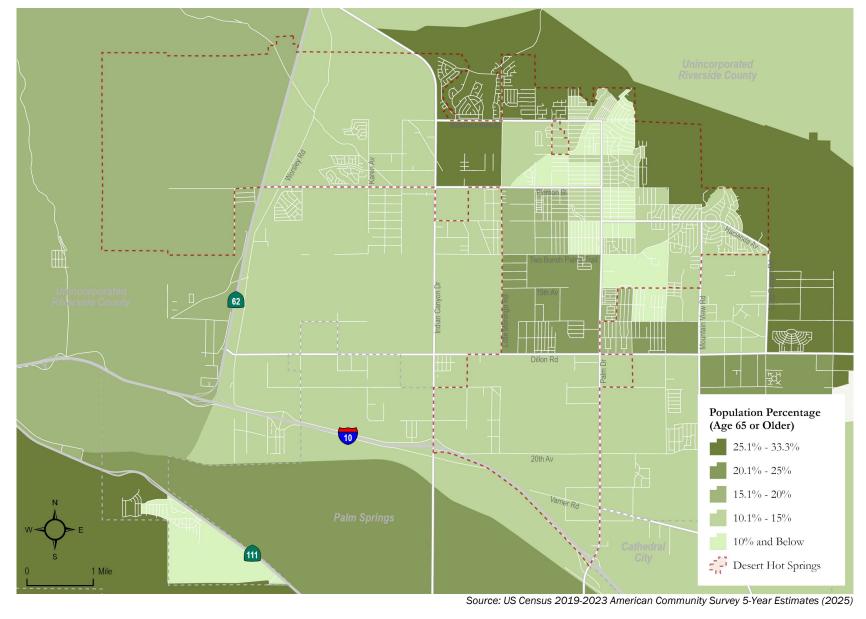


Figure 2.7 - Senior Population

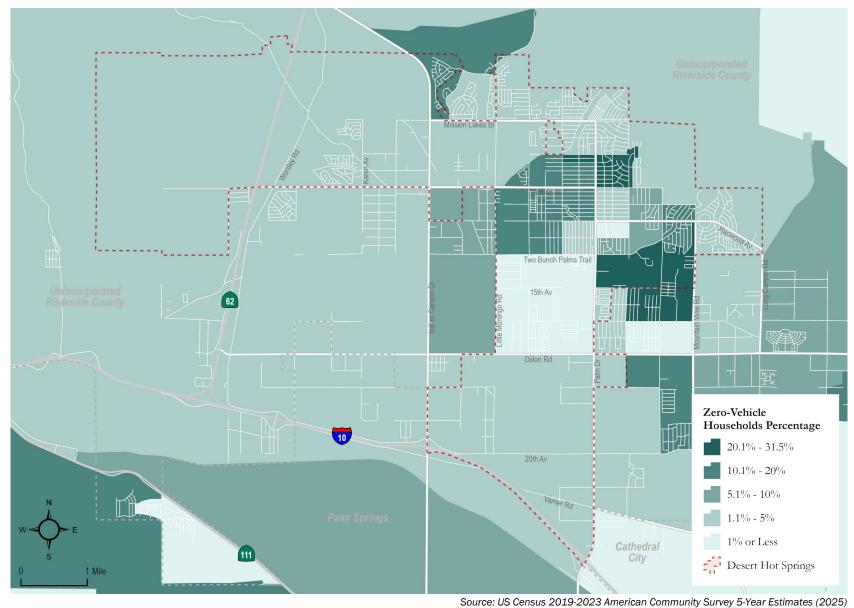


Figure 2.8 - Zero-Vehicle Households



### 2.3 Commuter Profile

Examining the existing commuter patterns of residents and employees provides a deeper understanding of how people travel, and in turn, will inform the potential level of active transportation, also referred to as latent demand.

**Figure 2.9** presents employment density by Census Block Group. As shown, areas of higher employment density are concentrated in the central part of the City, in close proximity to the higher residential population concentrations. This provides the City with greater potential for active transportation trips for commute purposes when supporting infrastructure is present. The Census Block Group with the highest concentration of employment is at the intersection of Palm Drive and Hacienda Avenue, corresponding to the location of the Hacienda Palms Shopping Center.

**Figure 2.10** displays where people employed in Desert Hot Springs live by Census Tract. Desert Hot Springs employees are most concentrated in Census Tracts located within the City of Desert Hot Springs and nearby cities to the south, specifically adjacent to I-10. Approximately 25% of people employed in Desert Hot Springs also live within the City.

**Figure 2.11** depicts a heat map of where residents of Desert Hot Springs work, drawing from year 2022 LEHD data. Approximately 49% of the Desert Hot Springs working population is employed within 10 miles of their home Census Block, with the greatest concentrations located in City's urbanized center.

Short commute distances, particularly for those who both live and work within Desert Hot Springs, indicate potential for increased commutes by means other than personal automobile. However, people must feel comfortable with the environment and confident in their abilities and/or available services. These can be achieved through context appropriate infrastructure and educational and encouragement programs that teach and facilitate safe behaviors.

**Table 2.2** compares commute mode shares for the City of Desert Hot Springs and Riverside County. "Drove alone" and "Carpooled" had the highest rates, together accounting for 91% in the City and 84% in the County. Active transportation commute trips are very low in both geographies. Although public transportation ridership in Desert Hot Springs is double that the County's, walking/bicycling commutes in Desert Hot Springs are lower than that reported for the County.

**Desert Hot Springs Riverside County** Means of **Transportation** Commuters **Mode Share** Commuters **Mode Share Drove Alone** 10,765 75.4% 814,361 71.9% 132,339 Carpooled 2,268 15.9% 11.7% **Public Transportation** 248 1.7% 7,327 0.6% **Bicycle** 0 0.0% 4,260 0.4% Walked 105 0.7% 1.4% 15,863 Other Means 42 0.3% 14,493 1.3% Worked from Home 846 5.9% 144,439 12.7% 14.274 Total 1.133.082

Table 2.2 - Commute Mode Share

Source: US Census, 2019-2023 American Community Survey 5-Year Estimate (2025)



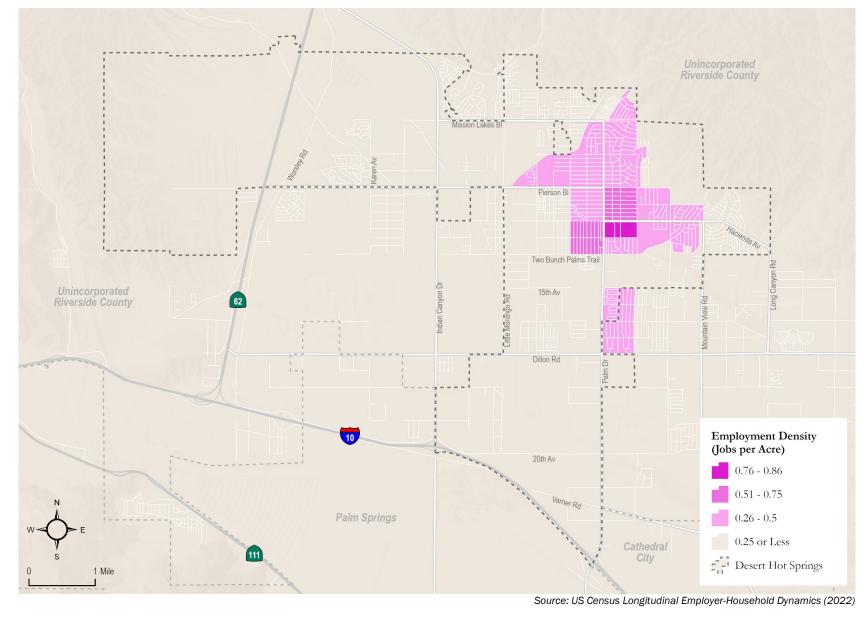


Figure 2.9 - Employment Density

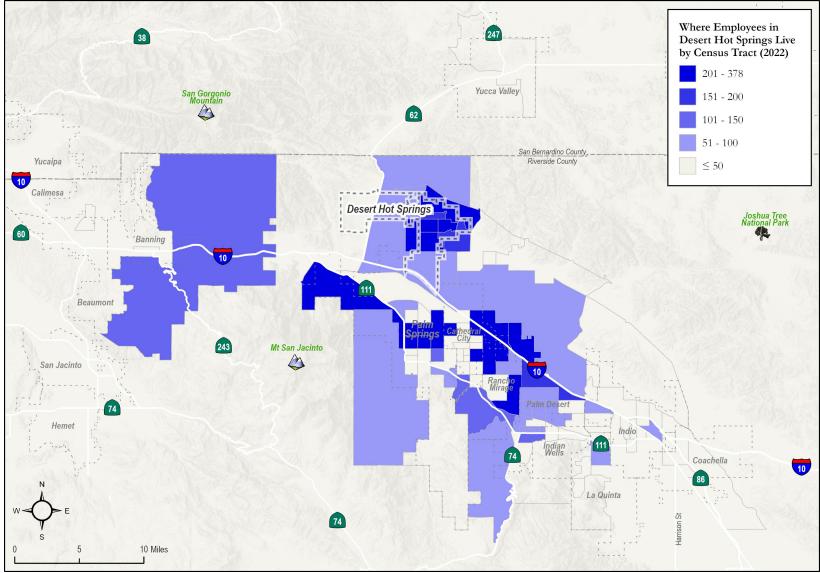


Figure 2.10 - Where Employees in Desert Hot Springs Live

Source: US Census Longitudinal Employer-Household Dynamics (2022)



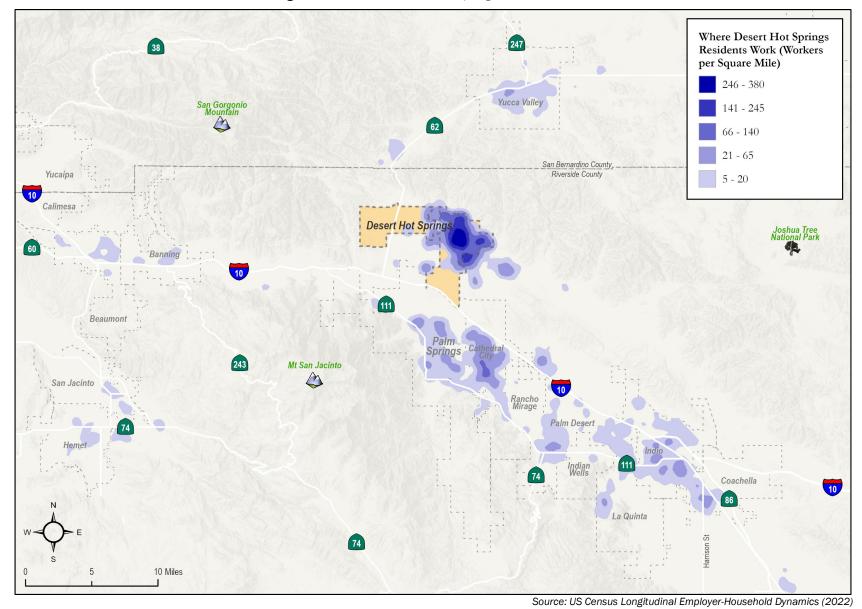


Figure 2.11 - Where Desert Hot Springs Residents Work



### 2.4 Demand

An established analysis technique used to understand latent demand for cycling and walking – or the likelihood to make a walk or bike trip – is through an assessment of population and land use characteristics. This latent demand is depicted in an active transportation propensity model. The propensity model combines walk and bike trip generator inputs – population, employment, income, age, pedestrian commuters, bicycle commuters, and transit commuters – with walk and bike trip attractors – schools, retail, parks, recreational spaces, civic uses and trails. When combined, the active transportation generators and attractors provide a foundation for understanding active transportation demand across the City of Desert Hot Springs.

#### **Active Transportation Trip Generators and Attractors**

**Table 2.3** displays the inputs, thresholds, and multiplier values used to create the active transportation trip generator submodel. Generator input values are designated as "High", "Medium", "Low", and "Very Low". Each designation represents a quartile – or a quarter of the studied population – within Desert Hot Springs. Generator input values listed as "High" reflect conditions with a greater likelihood of generating an active transportation trip. Generator input values in the "Low" range are understood to generate relatively fewer trips. Higher population and employment densities are associated with potentially higher levels of active transportation trip generation. Bicycle, pedestrian and transit commute rates, as well lower incomes and disadvantaged populations, are also contributing factors to trip generation propensity.

Table 2.3 - Active Transportation Trip Generator Submodel Inputs

		Point Values				
	Input	High Medium		Low	Very Low	
Generator Inputs <sup>1</sup>	Weight	3	2	1	0	
Population Density (persons per acre)	3	>8.36	3.27 - 8.36	0.82 - 3.26	≤0.81	
Employment Density (jobs per acre)	3	>0.296	0.149 - 0.296	0.032 - 0.148	≤0.031	
Pedestrian Commuters (percent of commuters)	2	>4.22%	1.6% - 4.22%	0.1% - 1.59%	0%	
Transit Commuters (percent of commuters)	2	>3.83%	2.41% - 3.83%	0.01% - 2.4%	0%	
Median Annual Household Income	1	≤\$36,000	\$36,001 - \$50,000	\$50,001 - \$66,000	\$66,001 - \$88,000	
Youth Population (percent of population)	1	>29.3%	23.5% - 29.3%	17.1% - 23.4%	≤17%	
Senior Population (percent of population)	1	>16.3%	13.3% - 16.3%	7.91% - 13.2%	≤7.9%	

Source: CR Associates (2025)

**Figure 2.12** displays the Active Transportation Trip Generator Submodel results. As shown, a higher concentration of active transportation trip generators can be found radiating the City's urbanized center, especially along Palm Drive and Hacienda Avenue. This is consistent with the findings of the

<sup>&</sup>lt;sup>1</sup> Bicycle Commuters were considered, however, all Census Block Groups within the City of Desert Hot Springs were found to have 0.0% bicycle commuters and were thus excluded from the assessment.



previous subsections, whereby these areas are also noted for higher rates of population and employment density.

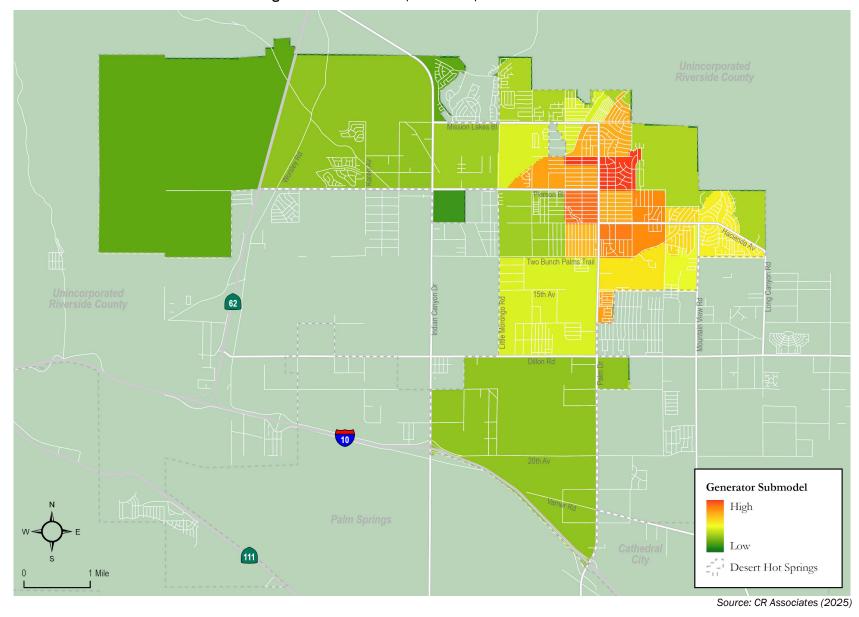


Figure 2.12 - Active Transportation Trip Generator Submodel



The Active Transportation Trip Attractor Submodel was developed using the input variables displayed in **Table 2.4**. Each attractor is buffered by a series of quarter-mile buffers, up to one-mile. The distance contributes to multipliers that decrease every quarter mile interval away from the trip attractor – meaning that an attractor has more weight closer to its location. A point value is calculated by multiplying the distance multiplier by the weight assigned to each attractor. Particular types of attractors garner progressively lower weights in terms of their ability to attract active transportation trips as the distance required to travel along the roadway network to reach them increases.

Table 2.4 - Active Transportation Trip Attractor Submodel Inputs

		Distance Multipliers				
		Within 1⁄4 mile	Between ¼ and ½ mile	Between ½ and ¾ mile	Between <sup>3</sup> / <sub>4</sub> mile and 1 mile	
Attractor Inputs	Input Weight	1.5	1	0.75	0.5	
High Schools	4	6	4	3	2	
Middle & Elementary Schools	3	4.5	3	2.25	1.5	
Retail Centers <sup>1</sup>	3	4.5	3	2.25	1.5	
Parks	3	4.5	3	2.25	1.5	
Community Center & Recreation Centers <sup>2</sup>	3	4.5	3	2.25	1.5	
Transit Stops	2	3	2	1.5	1	
Hiking Trailheads	2	3	2	1.5	1	
Retail Land Uses	2	3	2	1.5	1	
Civic Land Uses <sup>3</sup>	2	1.5	1	0.75	0.5	

Source: CR Associates (2025)

**Figure 2.13** displays the Active Transportation Trip Attractor Submodel. The greatest concentration of trip attractors is in central Desert Hot Springs, in and around the downtown area, particularly along Pierson Boulevard. Other smaller concentrations of trip attractors can be found to the south along Palm Drive and to the east along Hacienda Avenue.

The Active Transportation Propensity Model, displayed as **Figure 2.14**, was created by combining the trip generator and trip attractor submodels with equal weighting. Higher propensity is indicative of areas with increased potential for active transportation due to relatively higher levels of trip attractors and trip generators. However, these areas may also have increased barriers related to active transportation, including higher posted speed limits and traffic volumes, more bicycle and pedestrian collisions, and more travel lanes.

As the generators and attractors are in close proximity, the results shown closely mirror those presented in their respective submodels. The greatest propensity identified is in the central portion of Desert Hot Springs along Palm Drive and Pierson Boulevard.

<sup>&</sup>lt;sup>1</sup>Commercial/Retail land use areas greater than 7-acres, (e.g., Desert Hot Springs Town Center, Hacienda Palms Shopping Center, Mission Lakes Marketplace)

<sup>&</sup>lt;sup>2</sup> Carl May Community Center, Desert Hot Springs Recreation & Aquatics Center

<sup>&</sup>lt;sup>3</sup> Desert Hot Springs Library, City Hall



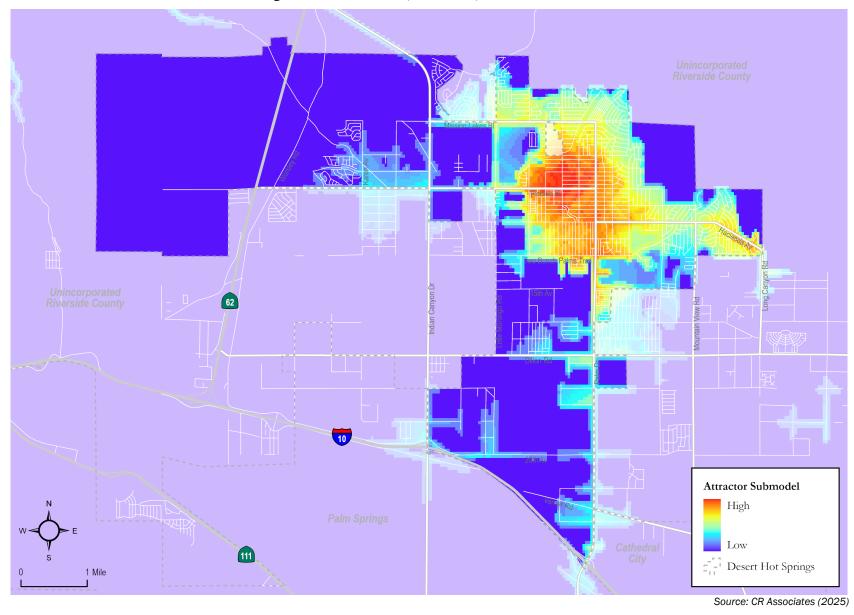


Figure 2.13 - Active Transportation Trip Attractor Submodel



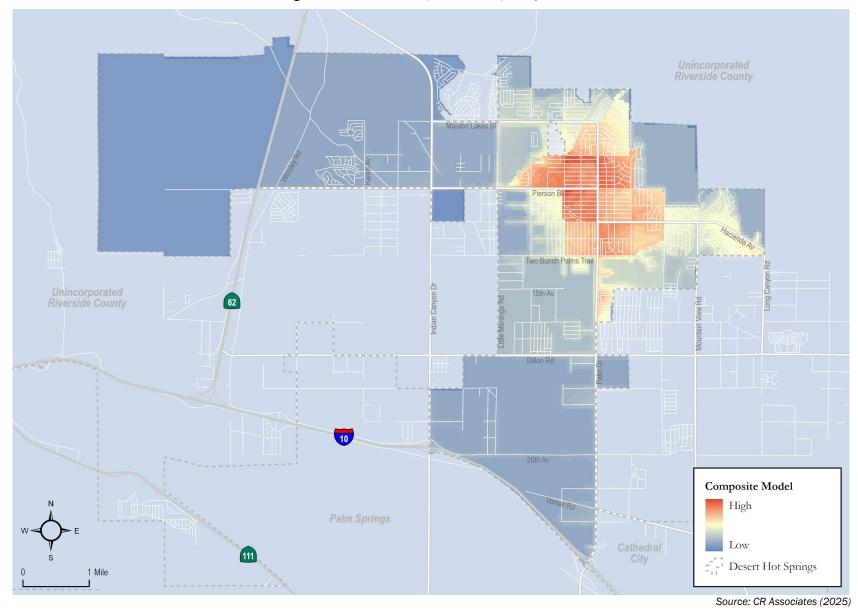


Figure 2.14 - Active Transportation Propensity Model



### 2.5 Communities of Concern

A well-considered multimodal mobility network serves the needs of all users, regardless of age, ability, and socio-economic class. Communities of concern are population groups that are disadvantaged in a socio-economic and/or environmental way. These groups may have greater burdens and may also have a greater reliance on alternative transportation modes for everyday trips. Therefore, it is important to identify them and include them in decision-making processes, especially because they may have historically been underrepresented in the planning process. The metrics included in this section are often used to determine grant eligibility or competitiveness.

#### **CalEnviroScreen**

CalEnviroScreen 4.0 is a California Environmental Protection Agency mapping tool that helps identify California communities that are most affected by pollution, and where people are often especially vulnerable to pollution's effects. It uses environmental, health, and socioeconomic information to produce scores for every census tract in the state. An area with a high score is one that experiences a much higher pollution burden than areas with low scores.

CalEnviroScreen scores within Desert Hot Springs are shown in **Figure 2.15**. Overall, the City scored lower than 40, which is relatively low for pollution burden when compared to Census Block Groups across California. The areas with the lowest scores – or lowest pollution burdens – are mostly located on the northeast. This means that, overall, the City is not experiencing a pollution burden, which is a positive factor for the health of active transportation users.

#### US DOT Equitable Transportation Community (ETC) Explorer

The US DOT ETC Explorer is an interactive web application that helps users understand how transportation underinvestment affects communities. The tool uses 2020 census tract data to calculate five disadvantaged components:

- Transportation Insecurity
- Health Vulnerability
- Environmental Burden
- Social Vulnerability
- Climate and Disaster Risk Burden

The US DOT considers a census tract to be disadvantaged if the overall index score is in the 65th percentile (or higher) of all US census tracts. The 65% cutoff was chosen to be consistent with Climate and Economic Justice Screening Tool (CEJST), which prioritizes tracts at the 65th percentile or above for CEJST's low-income indicator.

As shown in **Figure 2.16**, the majority of the census tracts within the City are considered disadvantaged, except for the northeast portion of the City. All five disadvantage components (Transportation Insecurity, Health Vulnerability, Environmental Burden, Social Vulnerability, Climate and Disaster Risk Burden) are exhibited within Desert Hot Springs.



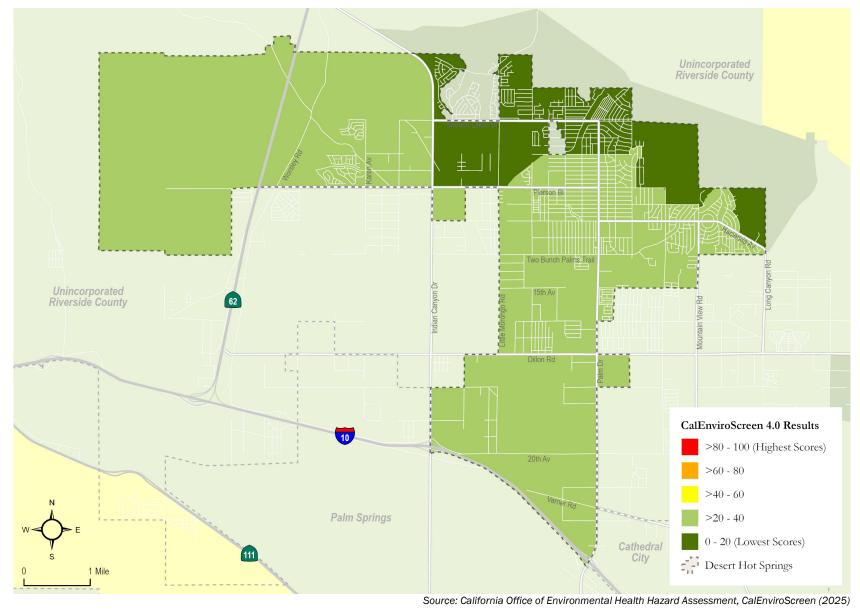


Figure 2.15 - CalEnviroScreen 4.0

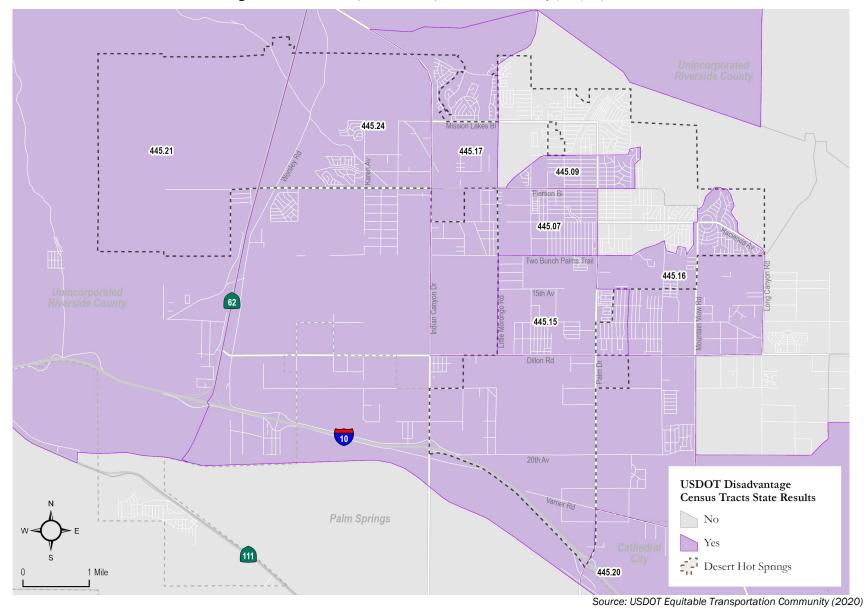


Figure 2.16 - USDOT Equitable Transportation Community (ETC) Explorer



#### **Caltrans Equity Index**

The Transportation Equity Index (EQI) is a spatial screening tool designed by Caltrans to identify transportation-based priority populations at the census block level. The EQI integrates transportation and socioeconomic indicators into three filters, including:

- Transportation-Based Priority Populations: Communities that are most burdened by the transportation system and receive the fewest benefits.
- Traffic Exposure: Communities that are the most burdened through high exposure to traffic and crashes.
- Access to Destinations: Communities that have the greatest gaps in multimodal access to destinations.

The EQI results are depicted in **Figure 2.17**. Priority populations based on the Access to Destinations criteria cover most of the City's census blocks, extending through the urbanized center and open space to the west and south. Transportation-Based Priority Populations are spread across the central area of Desert Hot Springs, especially along Palm Drive, including two larger portions on the south, adjacent to I-10.

#### SB 535 Disadvantaged Communities

As part of this Existing Conditions Report, SB 535-designated disadvantaged communities data was reviewed, however, no designated census tracts were found within, or adjacent to, Desert Hot Springs.

## 2.6 Transportation Demand Management

Transportation Demand Management (TDM) refers to methods, operational strategies, and incentives used to reduce vehicle miles traveled (VMT), examples include encouraging carpooling and promoting active transportation. This is a vital strategy to reduce VMT and support healthy and sustainable transportation options that the City's existing policies currently promote.

The City of Desert Hot Springs has a full chapter (Ch 10.56) under the Municipal Code dedicated to Transportation Demand Management Requirements. Its purpose is to "...protect the public health, welfare and safety by reducing air pollution caused by vehicle trips and vehicle miles traveled. This chapter shall do this by meeting requirements of AB1791, California Government Code Section 65089(b)(3) which requires development of a trip reduction and travel demand element to the congestion management plan (CMP), and California Government Code Section 65089.3(b) which requires adoption and implementation of trip reduction and travel demand ordinances."

In addition, the City prioritizes future investments and implementation related to TDM in current local plans. The City's General Plan's (2020) measure C-9 Multimodal Mobility Plan includes the following implementation strategy:

"Provide the framework for updating the City's existing TDM requirements contained in Chapter 10.56 of the City's Municipal Code so it applies to additional, residential and non-residential development in the City. The revised TDM program shall specify what percent of vehicle miles traveled must be reduced by the land use, compared to default rates."

The DHS ATP can build on these existing policies and strategies to support active transportation.



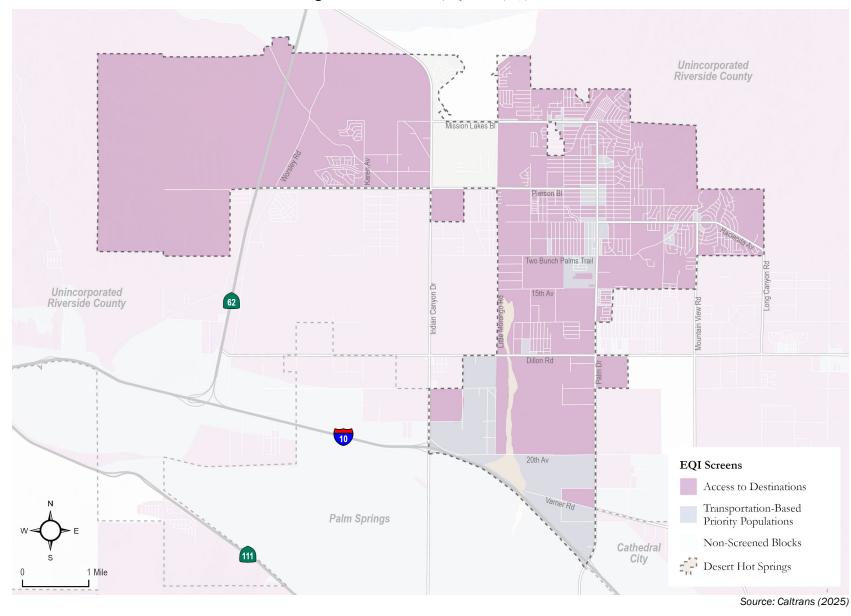


Figure 2.17 - Caltrans Equity Index (EQI)



# 3.0 Pedestrian Mobility

This chapter provides an overview of pedestrian facilities and describes the state of the existing pedestrian environment as it relates to connectivity, quality, and safety. The information presented includes the presence of sidewalks, crosswalks, and curb ramps, and identification of high activity pedestrian areas. A Pedestrian Environment Score was utilized to assess the network quality, and lastly, pedestrian-involved collisions were analyzed to understand pedestrian safety.

## 3.1 Network Connectivity

The existing pedestrian infrastructure will be the framework upon which future improvements will be built. The presence of sidewalks, curb ramps, and crosswalks were assessed along all public streets within DHS. Streets within gated or private communities were excluded.

**Figure 3.1** displays the location of existing and missing sidewalks along public roadways, totaling approximately 58 miles of existing and 123 miles of missing sidewalks. Roads in gated and private communities were not inventoried. Sidewalks may be missing along one or both sides of the identified roadways. As can be seen, most public roadways are missing sidewalks on one or both sides of the road and are spread throughout the City. These gaps may discourage or prevent people from walking to destinations.

**Figure 3.2** identifies the locations of existing curb ramps, distinguishing between with and without a detectable warning surface, which aids vision-impaired individuals in detecting street crossing locations. Intersection locations where sidewalks are present, yet lacking curb ramps are also identified in the figure. Most existing curb ramps along Palm Drive exhibit detectable warning surfaces, whereas most of the curb ramps on Pierson Boulevard do not.

**Figure 3.3** identifies locations with marked, high-visibility, and decorative crosswalks. As can be seen, marked crosswalks are mostly located along Palm Drive and Pierson Boulevard.

The lack of pedestrian infrastructure in most residential areas, especially around schools, translates into a challengingly connected network and prevents people from taking everyday trips by walking. The City will use this inventory to prioritize curb ramp and sidewalk construction based on location need and consistency with future capital projects.



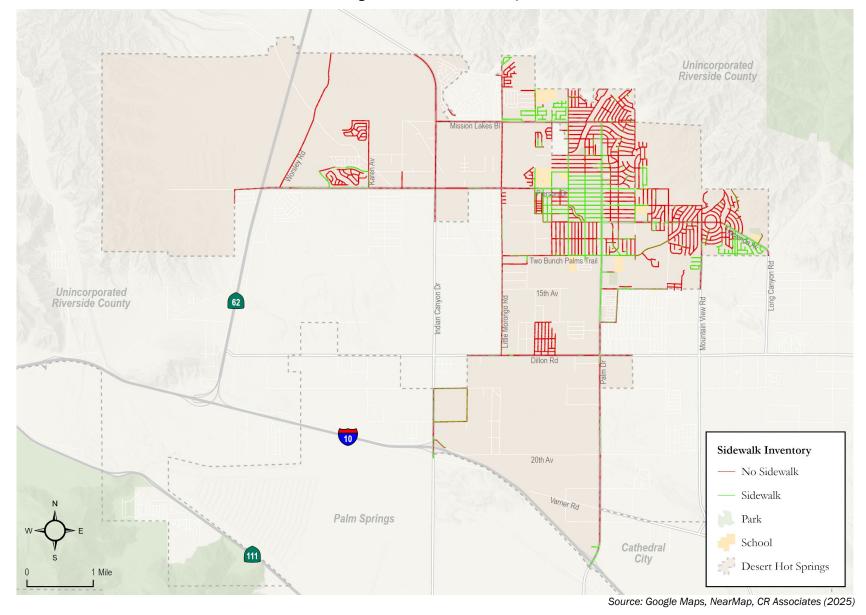


Figure 3.1 - Sidewalk Inventory



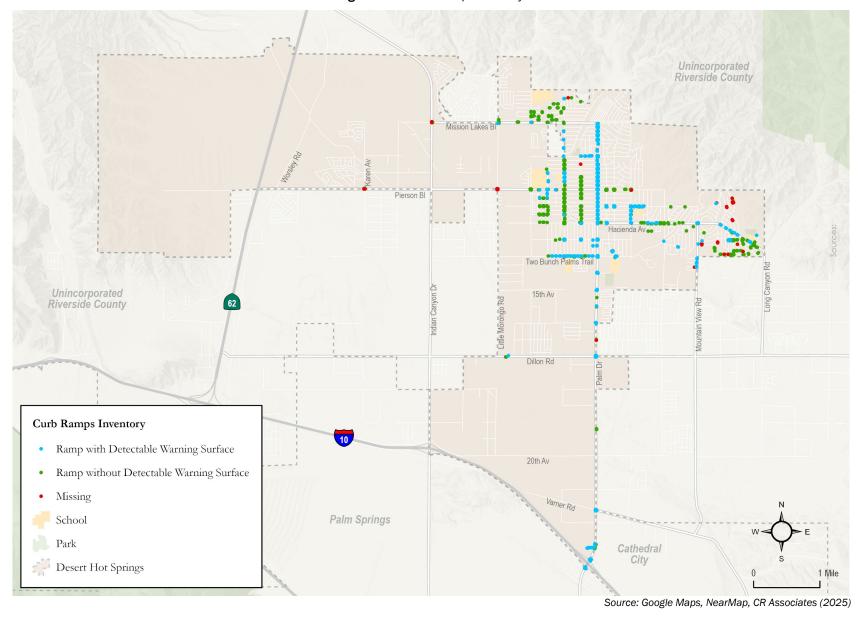


Figure 3.2 - Curb Ramp Inventory



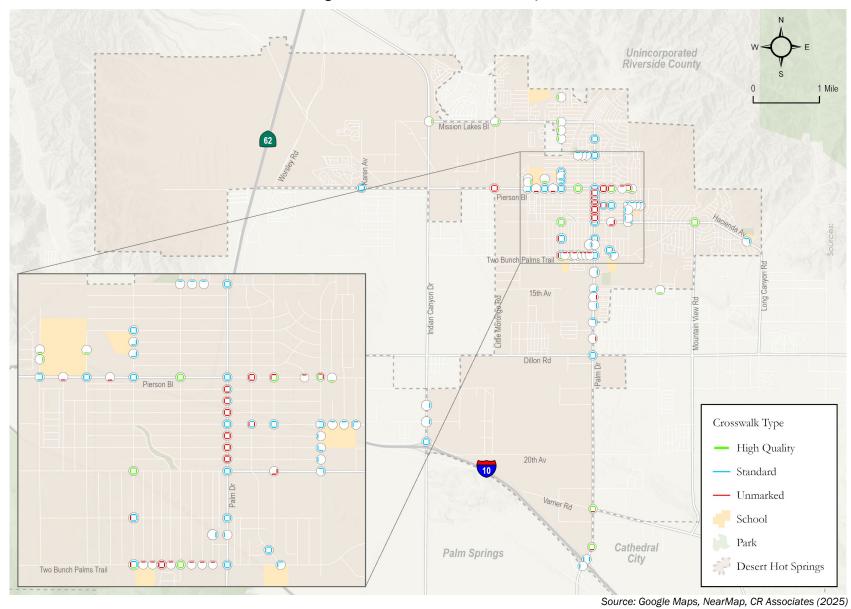


Figure 3.3 - Marked Crosswalk Inventory



### Big Data: Replica and Strava

Big data can be used to assess travel by stated or inferred transportation mode. For this report, the project team assessed two separate big data models that take into account the existing public roadway network.

Replica's seasonal mobility model is a high-fidelity activity-based travel model with network-link level granularity. Each model is a synthetically generated representation of the activities and movements of residents, visitors, and commercial vehicles on a typical weekday and typical weekend day for a given location and season. Replica makes a series of assumptions—for example, it assumes that pedestrians are choosing the shortest possible path to travel between origins and destinations, regardless of whether each street has a high posted speed limit or available pedestrian infrastructure. It often translates to more estimated activity along major roads, rather than residential and local roads, as they may be circuitous or contain more cul-de-sacs. **Figure 3.4** illustrates the Replica model for a typical Thursday in Spring 2024.

Strava is an app-based platform for tracking physical exercise and sharing routes and performance. The data collected can aid in the comparison of pedestrian and bicycle activity levels across a study area, however, it should be noted the data is not intended to be representative of all people and may underrepresent certain demographic groups such as youth, women, and lower socioeconomic populations. **Figure 3.5** illustrates the Strava model for January 1 through December 31, 2024.

The data depicted in these two figures both show relatively higher rates of pedestrian activity on Palm Drive in downtown DHS and on Hacienda Avenue. The Replica model, which tends to show more everyday trips, also exhibits higher rates of activity on streets surrounding downtown and on neighborhood streets in higher-density residential areas and near schools. The Strava data indicates that there are higher frequencies of recreational uses in several neighborhoods, particularly those on the northern border of the City.



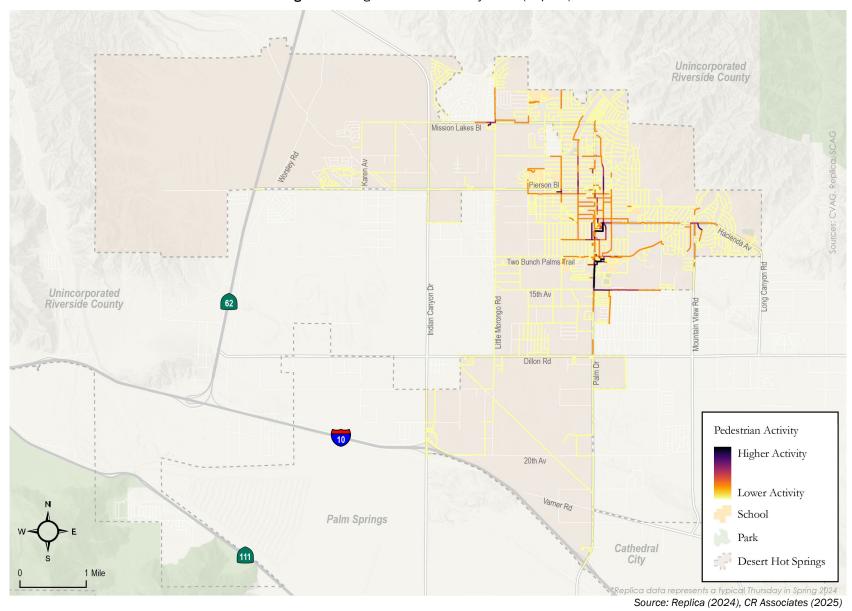


Figure 3.4 - High Pedestrian Activity Areas (Replica)

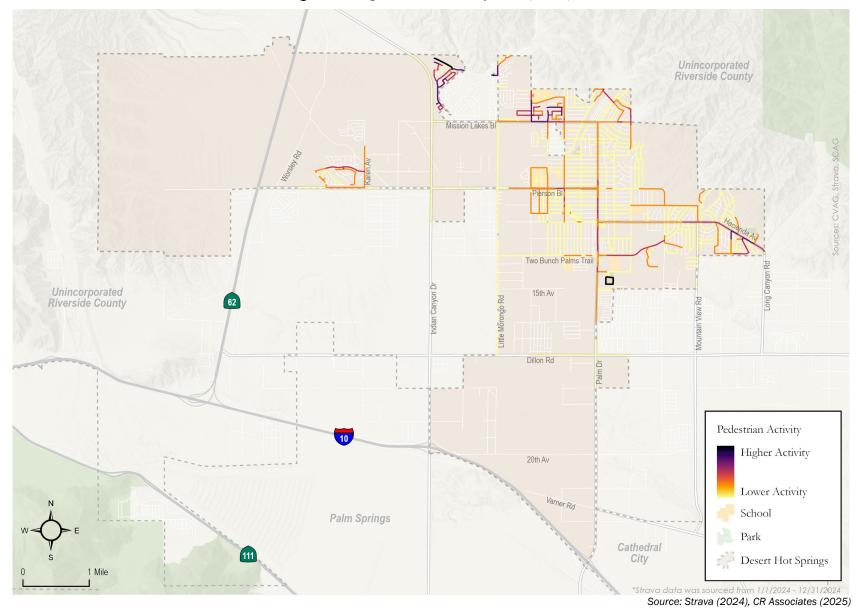


Figure 3.5 - High Pedestrian Activity Areas (Strava)



# 3.2 Network Quality

The quality of the existing roadway environment for pedestrians is measured with the Pedestrian Environmental Score (PES), which assesses the level of pedestrian comfort along all roadways and marked crosswalk locations.

#### **Segment Evaluation**

The PES methodology assigns each network segment a score from high (best) to very low (worst) as documented in the segment base-level PES methodology, **Table 3.1**. The methodology further assesses pedestrian infrastructure based on factors such as safety and user experience, providing an understanding of walkability within the study area. The results highlight areas where infrastructure improvements can enhance pedestrian mobility and safety and encourage more walking trips. Roadways with four or more travel lanes receive a PES score for each side of the street, while roadways with three or fewer travel lanes receive a single centerline score.

4-Lanes with Raised 3-Lanes or 4-Lanes Median or 2-5-Lanes 2-Lanes Lanes Undivided or More w/Center Left Turn Lane 25 mph High Medium Medium Low 30 mph Medium Medium Low Low 35 mph Low Low Low Low 40 mph Very Low Very Low Very Low Very Low

Table 3.1 - Base-Level PES Methodology for Segments

Source: CR Associates (2025)

Following the base score, two essential criteria (sidewalk and regular street lighting) are inventoried; if either feature is not present along a segment, the score is lowered. Following the inventory of essential infrastructure, each segment is inventoried for the additional amenities or attributes influential to the pedestrian environment and generate the segment's final PES score. These features include:

- Sidewalk width of 8' or greater
- Horizontal separation from the outside travel lane of 14' greater
- Traffic calming infrastructure in the roadway (horizontal deflection, speed bumps, etc.)
- Landscaping with or along the right-of-way that provides a tree canopy
- Pedestrian scale lighting

**Figure 3.6** shows the PES scores along paved public roadway segments. Segment results are quantified in **Table 3.2**. The scores and associated input factors are listed by segment in **Appendix B**. Within the City Center, especially on Palm Drive, most of the pedestrian environment is of Medium or High quality. Radiating from this central area are streets with a Medium or Low PES score. Beyond this, most streets are rated as Very Low with several pockets in the north and west of the City having scores between Low and High. Several of these pockets coincide with areas that have higher recreational activity, based on the Strava model (Figure 3.5).

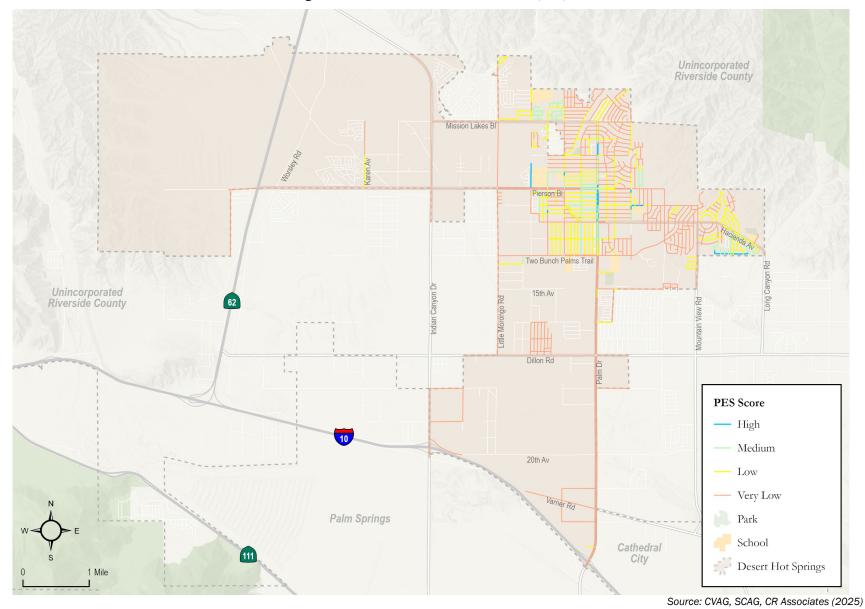


Figure 3.6 - Pedestrian Environment Score (PES)



Table 3.2 - Sidewalk Inventory PES Rating

PES Score	Mileage
High (best)	2.2
Medium	9.5
Low	32.6
Very Low (worst)	96.9
Total	141.2

Source: CR Associates (2025)

#### Marked Crosswalk Evaluation

Marked crosswalk locations throughout DHS were also assessed using PES methodology. The marked crosswalk location base-level methodology is shown in **Table 3.3**, which considers number of travel lanes, median presence and posted speed limit. Following the base assessment, additional inputs are factored in, such as a present and clear sidewalk, street lighting, and additional factors that may influence user comfort.

Table 3.3 - Base-Level PES Methodology for Marked Crosswalk Locations

Traffic Control	2-Lanes	3-Lanes	4- to 5-Lanes	6-Lanes or More
Protected Phase	Medium	Medium	Low	Very Low
Stop Control	Medium	Low	Very Low	Very Low
Permissive Phase	Medium	Low	Very Low	Very Low
Roundabout / Yield	Medium	Low	Very Low	Very Low
Free / Uncontrolled	Low	Very Low	Very Low	Very Low

Source: CR Associates (2025)

The number of marked crosswalks are quantified by PES rating in **Table 3.4** below. As shown, half of the 212 marked crossing legs fall into the Medium or High-quality scoring ranges. The Low and Very Low scoring marked crosswalks are opportunities to

Table 3.4 - Marked Crosswalk Locations by PES Rating

PES Score	# of Crossing Legs
High (best)	13
Medium	93
Low	71
Very Low (worst)	35
Total	212

Source: CR Associates (2025)



# 3.3 Safety

### California Office of Traffic Safety Rankings

The California Office of Traffic Safety (OTS) provides comparisons of traffic safety statistics between cities, using populations to categorize cities into similar sized groups. This data can help build an understanding of which areas a city is performing well in or may need improvement in. The most recent year of OTS data is for 2022. With an estimated population of 32,786 in 2023, the City of DHS falls within Group D, which includes 90 cities with a population size between 25,001 and 50,000.

**Table 3.5** displays the OTS rankings for DHS. The rankings depict two numbers: the first number is the city's ranking in that category, while the second number is the total number of cities within that Group. Number 1 in the rankings is the worst, while 90 would be the best for Group D. OTS provides the following description as to how the rankings are determined:

"Crash rankings are based on the Empirical Bayesian Ranking Method, which adds weights to different statistical categories including observed crash counts, population and vehicle miles traveled. The crash counts reflect the aggregated impacts of all influential factors containing even the unrecognized or unmeasurable ones (e.g. level of enforcement), and the population and vehicle miles traveled represent the important traffic exposure factors that affect crash occurrence. The weights are assigned to the three components in a way that maximizes the precision of estimated Bayesian crash counts."

DHS was ranked among the top third portion of cities alike for all pedestrian components, including pedestrians under 15 and over 65 years of age. It was generally found to rank worse than peer cities in the region in terms of fatal and injury collisions as well as pedestrian safety, except for Palms Springs, which ranked worse in three categories. This signifies potential for improvement, with the possibility of addressing these issues through a combination of engineering, education, and enforcement-related measures.

OTS Ranking out of 90 1 (Worst) to 90 (Best) **Victims** Palm DHS Coachella La Quinta Killed & Injured **Crash Category Springs** 166 43 61 🔺 Total Fatal and Injury 36 **17** ▼ 4 **v Pedestrians** 15 15 ▼ 77 65 🔺 Pedestrians < 15 2 14 **V** 82 🔺 47 70 Pedestrians 65+ 2 26 **T** 2 🔻 52 49

Table 3.5 - OTS Ranking Comparison

**Key:** ▼= worst-performing third (1-30) ■ = middle-performing third (31-60) ▲ = best-performing third (61-90)

Source: California Office of Traffic Safety (2022); CR Associates (2025)

### Pedestrian-Involved Collision Data

Collision data can be used to identify potential deficiencies and behavioral issues related to pedestrian safety. The collision review draws from five years of data (January 2019 – December 2023) obtained from the California Statewide Integrated Traffic Records System (SWITRS). The



analysis was used to identify trends and patterns related to collision locations, causes and injury severity. Ultimately, this information will help inform the identification of potential pedestrian infrastructure improvements and programmatic recommendations.

A total of 54 pedestrian-involved collisions were reported in DHS during the five-year period. **Figure 3.7** identifies where pedestrian collisions were reported. Collisions were largely concentrated within central DHS, mostly along Palm Drive, where more pedestrian activity can be observed. Locations with a history of frequent collisions include:

- Two Bunch Palms Trail and Palm Drive
- Hacienda Avenue and Palm Drive
- 8th Street and Palm Drive

It is worth noting that Palm Drive has experienced several pedestrian and bicycle improvements in the 5-year data period, starting in 2021 and gradually continuing until 2024. Pedestrian improvements mostly include the enhancement of crosswalks at intersections. However, the data shows that several pedestrian collisions at these high collision locations were reported in 2022. This may indicate that the improvements, along with new developments in the area, promoted more pedestrian activity at these locations, therefore more collisions happened.

**Figure 3.8** identifies where severe/fatal pedestrian collisions were reported. Of the 54 collisions, 46% were classified as severe or fatal, including 12 fatal collisions. As can be seen, Palm Drive was also found to be the roadway with the biggest number of records for this category. From the 12 fatal collisions, 9 were reported along Palm Drive, with highest concentrations between Pierson Boulevard and Two Bunch Palms Trail, coinciding with higher pedestrian movements, as well as south of 18<sup>th</sup> Avenue, where there is undeveloped land.

**Table 3.6** lists the primary collision causes for the 54 pedestrian-involved collisions. The most frequent primary cause was pedestrian violation with 48% of the reported collisions. The second most frequent collision cause was motorists violating the pedestrian's right-of-way, accounting for 17% of the collisions. Vehicles moving at unsafe speed was the third most common cause, constituting 15% of the collisions.

Table 3.6 - Leading Pedestrian Collision Causes

Cause	Frequency	Percent of Total
Pedestrian Violation	26	48.1%
Pedestrian Right of Way	9	16.7%
Unsafe Speed	8	14.8%
Driving or Bicycling Under the Influence of Alcohol or Drug	4	7.4%
Improper Turning	2	3.7%
Automobile Right of Way	2	3.7%
Traffic Signals and Signs	2	3.7%
Unknown / Not Stated	1	1.9%
Total	54	100%

Source: California Statewide Integrated Traffic Records System (2019-2023)

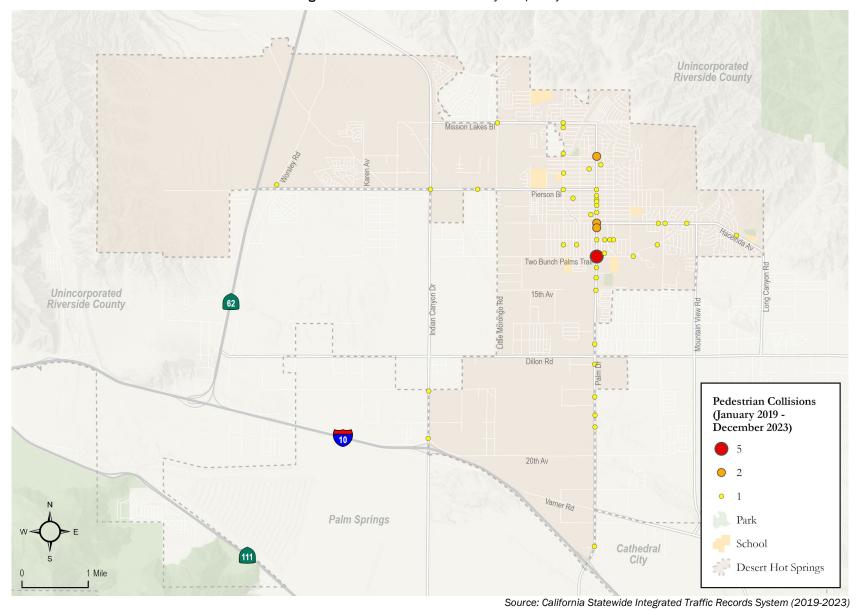


Figure 3.7 - Pedestrian Collisions by Frequency

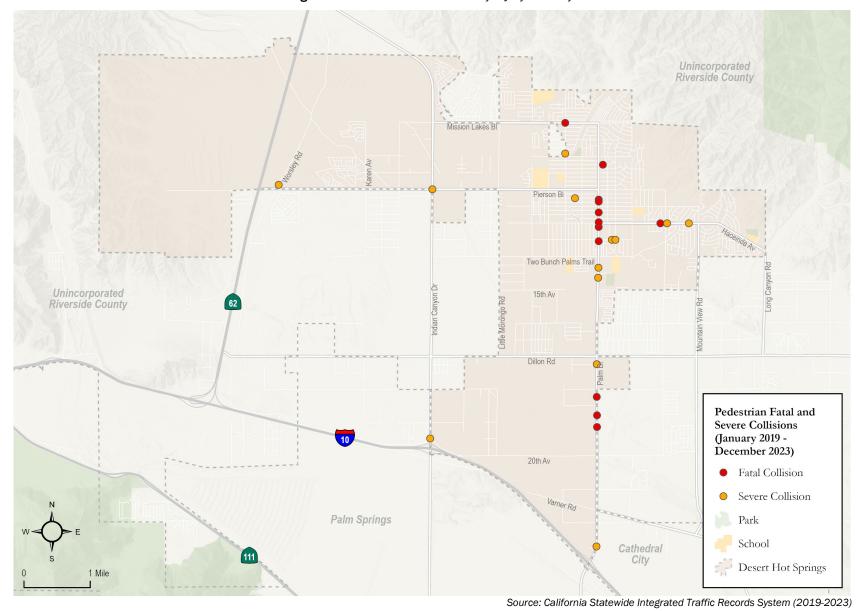


Figure 3.8 - Pedestrian Collisions by Injury Severity



**Table 3.7** presents the leading pedestrian collision violation codes. The most frequent code reported was 21954(a), pedestrian failure to yield upon roadway outside of crosswalk, accounting for 45% (20/54) of all pedestrian-involved collisions. Of these 20 collisions, 13 were reported along Palm Drive. The second most frequent violation code reported was 22350, vehicles driving at unsafe speed, with 12% of pedestrian collisions attributed.

Table 3.7 - Leading Pedestrian Collision Violation Codes

	Violation Code & Definition	Frequency	Percent of Total
21954(a)	Every pedestrian upon a roadway at any point other than within a marked crosswalk or within an unmarked crosswalk at an intersection shall yield the right-of-way to all vehicles upon the roadway so near as to constitute an immediate hazard.	20	45.1%
22350	No person shall drive a vehicle upon a highway at a speed greater than is reasonable or prudent having due regard for weather, visibility, the traffic on, and the surface and width of, the highway, and in no event at a speed which endangers the safety of persons or property.	7	12.1%
21954(b)	The provisions of this section shall not relieve the driver of a vehicle from the duty to exercise due care for the safety of any pedestrian upon a roadway.	4	11.0%
21950(a)	The driver of a vehicle shall yield the right-of-way to a pedestrian crossing the roadway within any marked crosswalk or within any unmarked crosswalk at an intersection, except as otherwise provided.	4	4.4%
21950(b)	No pedestrian may suddenly leave a curb or other place of safety and walk or run into the path of a vehicle that is so close as to constitute an immediate hazard. No pedestrian may unnecessarily stop or delay traffic while in a marked or unmarked crosswalk.	4	4.4%
23152(a)	It is unlawful for a person who is under the influence of any alcoholic beverage to drive a vehicle.	2	3.3%
22107	No person shall turn a vehicle from a direct course or move right or left upon a roadway until such movement can be made with reasonable safety	2	12.1%
22450(a)	The driver of any vehicle approaching a stop sign at the entrance to, or within, an intersection shall stop at a limit line, if marked, otherwise before entering the crosswalk on the near side of the intersection.	2	3.7%
Other		9	16.7%
Total		54	100%

Source: California Statewide Integrated Traffic Records System (2019-2023)



# 4.0 Bicycle Mobility

This chapter provides an overview of bicycle facilities and describes the state of the existing bicycle environment as it relates to connectivity, quality, and safety. The information presented includes the presence of bicycle facilities and their classifications, how they relate to existing transit stops, and the identification of high activity bicycle areas. The quality of the bicycle network was assessed using Level of Traffic Stress and Los Stress Connections to Key Destinations. Lastly, bicycle-involved collisions were analyzed to determine bicycle safety.

# 4.1 Network Connectivity

**Table 4.1** identifies the four bicycle facility classifications recognized by Caltrans, including Class I bike paths, Class II bicycle lanes, Class III bicycle routes, and Class IV cycle tracks. These terms will be used throughout this chapter.

Table 4.1 - Bicycle Facility Design Classification

**Image** 

### Description



Class I Bike Path – Also referred to as a multi-use path or shared-use path, Class I facilities provide a completely separated right-of-way designed for the exclusive use of bicycles and pedestrians with crossflows by motorists minimized. Bike paths can provide connections where roadways are non-existent or unable to support bicycle travel. The minimum paved width for a two-way bike path is eight-feet (ten-feet preferred), with a two-foot-wide graded area adjacent to each side of the pavement.

(CV Link, Cathedral City pictured)



Class II Bike Lane – Provides a striped lane designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited. Bike lanes are one-way facilities located on either side of a roadway. Pedestrian and motorist crossflows are permitted. Additional enhancements such as painted buffers, green paint, and signage may be applied. The minimum bike lane width is five-feet when adjacent to on-street parking, or six-feet when posted speeds are greater than 40 miles per hour.

(Palm Drive pictured)



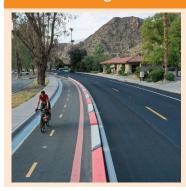
Class III Bike Route – Provides shared use of traffic lanes with cyclists and motor vehicles, identified by signage and/or street markings such as "sharrows". Bike routes are best suited for low-speed, low-volume roadways. Bike routes provide network continuity or designate preferred routes through corridors with high demand.

(First Street pictured)



**Image** 

### Description



Class IV Cycle Track – Also referred to as a separated or protected bikeway, cycle tracks provide a right-of-way designated exclusively for bicycle travel within the roadway and physically protected from vehicular traffic. Cycle tracks can provide one-way or two-way travel. Types of separation include, but are not limited to, grade separation, flexible posts, or on-street parking.

(CV Link, Palm Desert pictured)

Source: Caltrans, Highway Design Manual (2016); CR Associates (2025)

Generally, when planning for bicycle facilities, various levels of bicyclist abilities are considered in relation to the community and environment in which they live and cycle. A cyclist's skill level is an indication of what facility they feel the most comfortable or where they will ride. Cyclists have been generally categorized as belonging to one of four types, based upon their comfort, skill level and interest in cycling (Dill, et al; Four Types of Cyclists: Examination of Typology for Better Understanding of Bicycling Behavior and Potential, Portland State University, 2013). Table 4.2 provides a description of the four types of cyclists.

Importantly, bicycle facilities are only as comfortable as their weakest link or weakest feature. Gaps in facilities – such as dropping a bike lane at an intersection approach – may cause bicyclists to not feel comfortable riding and thus avoid the route. Similarly, a lack of secure bike parking at a destination may also discourage trips by bike. Many factors are considered when determining bicycle facilities, such as available right-of-way, traffic volumes, number of vehicular lanes, speeds, on-street parking presence, adjacent land uses, and network connections. These topics will be considered throughout the recommendation development stage when seeking to improve the network.

Table 4.2 - The Four Types of Cyclists

**Image** 

#### Description



The "Strong and the Fearless" represents fewer than half of a percent of the population. These are the people who will ride regardless of roadway conditions. They tend to self-identify as "cyclists", and riding is a strong part of their identity. They are generally undeterred by roadway conditions.



The "Enthused and Confident" are those who have been attracted to cycling and are comfortable sharing the roadway with automotive traffic but prefer to ride in a separate bicycle lane/space. They are attracted to riding where streets have been redesigned to make them work well for bicycling. They appreciate bicycle lanes and bicycle boulevards. This demographic comprises approximately seven percent of the population.



### Image Description



The vast majority of people are the "Interested but Concerned". They like riding a bicycle and would like to ride more. However, they are cautious toward most riding conditions and are uncomfortable with riding in mixed traffic. Very few regularly ride bicycles, and particularly not along arterials, or to major commercial and employment destinations. This group represents approximately 60 percent of the population. They would ride if they felt safer on the roadways — if cars were slower and less frequent or were physically separated from cars.



Approximately one third of the population falls into the last category - the "No Way, No How" group that is currently not interested in bicycling at all, for reasons of topography, inability, or simply a lack of interest.

Source: Dill, et al (2013)

Existing bicycle facilities are displayed in **Figure 4.1**. The network is comprised of Class II and Class III facilities, located primarily in the City Center. These facilities extend through Palm Drive and West Drive in the north-south direction, and along some portions of Mission Lakes Boulevard, Pierson Boulevard, Desert View Avenue, Hacienda Avenue, and Two Bunch Palms Trail in the east-west direction.

The City of Desert Hot Springs Bicycle & Pedestrian Master Plan (2016) includes a list of proposed projects that was developed with the goal of improving connectivity and generally expanding the dedicated bicycle and pedestrian network. The projects consist of upgrades to the existing bicycle facilities, as well as the installation of new facilities from all different classifications. In addition to Class II and Class III, the plan includes Class I bike paths, Class IV cycle tracks, and "neighborhood greenways", which are low-traffic and low-speed streets where priority is given to people walking and bicycling.

This ATP will serve as an update to the previous bicycle and pedestrian plan and will examine the feasibility of implementing the proposed facilities along higher volume and higher speed arterials as a mechanism to improve safety and increase ridership.

Existing bicycle network centerline mileage is summarized by facility type in **Table 4.3**. As shown, 16.6 miles are currently built in DHS, with 61% being Class II bike lanes and the rest being Class III bike routes.

Table 4.3 - Existing Facility Mileage by Classification

Classification	Mileage
Class II - Bike Lane	11.5
Class III - Bike Route	6.2
Total	17.7

Source: City of Desert Hot Springs (2023), CR Associates (2025)



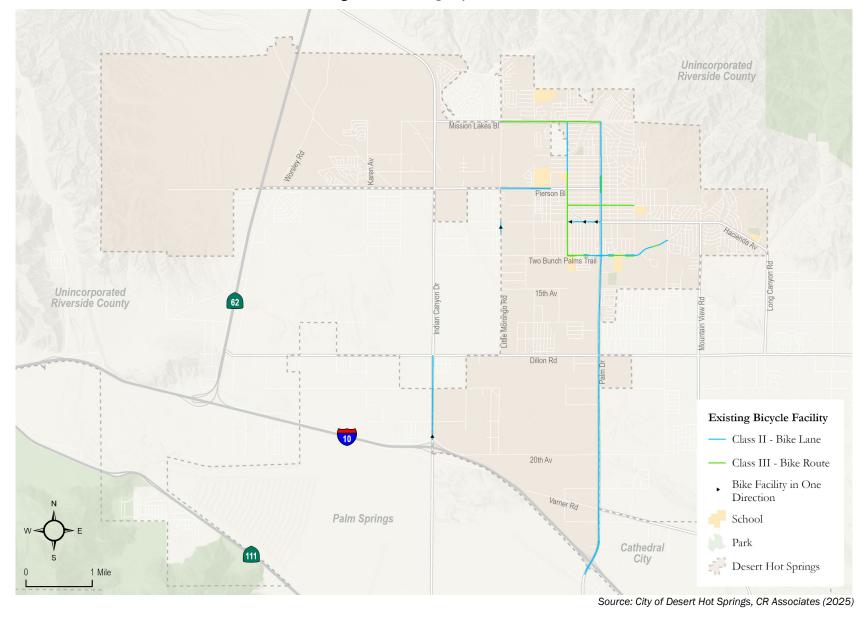


Figure 4.1 - Existing Bicycle Facilities



### Big Data: Replica and Strava

Similar to pedestrian mobility, Replica and Strava were also used to assess high activity areas for bicycles around the City. For more information on what Replica and Strava are, refer to section 3.1, Pedestrian Mobility – Network Connectivity.

The data depicted in **Figures 4.2** and **4.3** show the bicycle activity results from Replica and Strava models respectively. As shown in these two figures, bicycle activity for both daily and recreational trips is higher on major streets, including those running north-south (Little Morongo Road, Palm Drive) and east-west (Mission Lakes Boulevard and Hacienda Avenue).

Several major streets were more prominently used for daily use, as shown in the Replica model in Figure 4.2: Two Bunch Palms Trail, 20<sup>th</sup> Avenue, and Mountain View Road. Several showed up more prominently for recreational use, as shown in the Strava model (Figure 4.3): Worsley Road, Indian Canyon Drive, Pierson Boulevard, and Dillon Road.

### 4.2 Network Quality

The quality of the bicycle network was assessed using the bicycle Level of Traffic Stress (LTS) methodology for characterizing cycling environments, as developed by Mekuria, et al. (2012) of the Mineta Transportation Institute and reported in Low-Stress Bicycling and Network Connectivity. LTS classifies the street network into categories according to the level of stress it causes cyclists, taking into consideration a cyclist's physical separation from vehicular traffic, vehicular traffic speeds along the roadway segment, number of travel lanes, and factors related to intersection approaches with dedicated right-turn lanes and unsignalized crossings.

**Table 4.4** identifies the four LTS categories and provides a description of the traffic stress experienced by the cyclist and the environmental characteristics consistent with the category. LTS scores range from 1 (lowest stress) to 4 (highest stress) and correspond to roadways that different populations may find suitable for riding on, considering their stress tolerance.



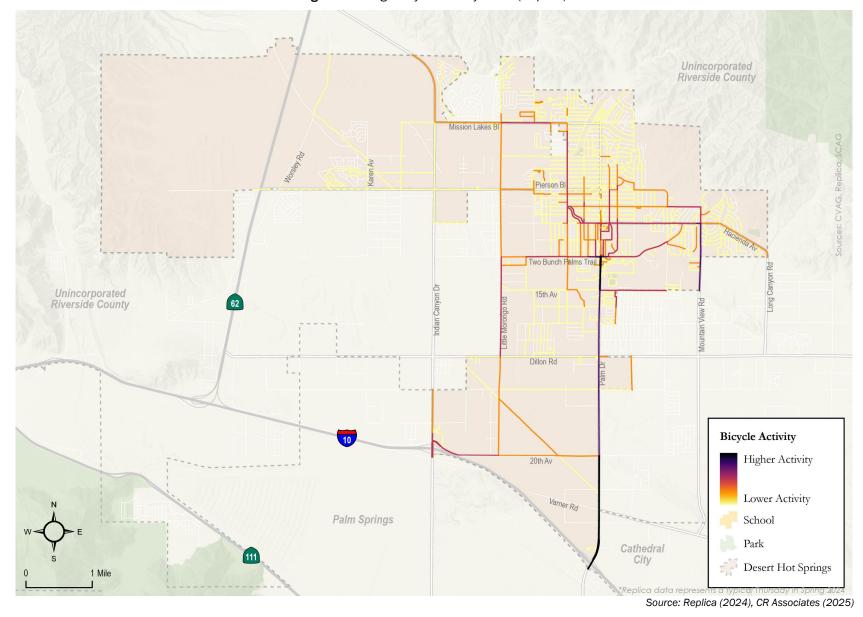


Figure 4.2 - High Bicycle Activity Areas (Replica)



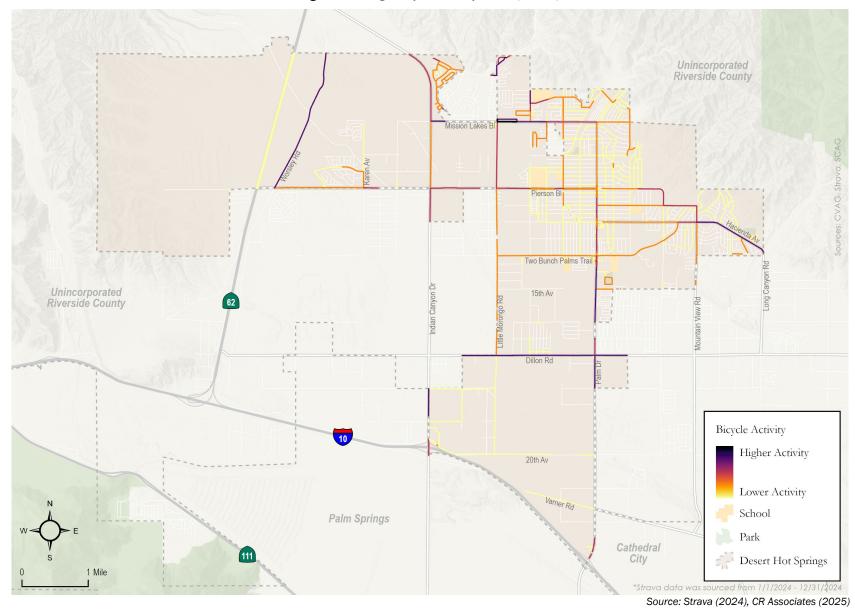


Figure 4.3 - High Bicycle Activity Areas (Strava)



 Table 4.4 - Level of Traffic Stress Classifications and Descriptions

LTS Category	LTS Description	Description of Environment	Comfort Level
LTS 1	Presenting little traffic stress and demanding little attention from cyclists; suitable for almost all cyclists, including children trained to safely cross intersections.	<ul> <li>Facility that is physically separated from traffic or an exclusive cycling zone next to a slow traffic stream with no more than one lane per direction</li> <li>A shared roadway where cyclists only interact with the occasional motor vehicle with a low-speed differential</li> <li>Ample space for cyclists alongside a parking lane</li> <li>Intersections are easy to approach and cross</li> </ul>	Interested but Concerned – Vulnerable Populations
LTS 2	Presenting little traffic stress but demanding more attention that might be expected from children.	<ul> <li>Facility that is physically separated from traffic or an exclusive cycling zone next to a well-confined traffic stream with adequate clearance from parking lanes</li> <li>A shared roadway where cyclists only interact with the occasional motor vehicle (as opposed to a stream of traffic) with a low-speed differential</li> <li>Unambiguous priority for cyclists where cars must cross bike lanes (e.g. at dedicated right-turn lanes); design speed for right-turn lanes comparable to bicycling speeds</li> <li>Crossings not difficult for most adults</li> </ul>	Interested but Concerned – Mainstream Adult Populations
LTS 3	Presenting enough traffic stress to deter the Interested but Concerned demographic	<ul> <li>An exclusive cycling zone (lane) next to moderate-speed vehicular traffic</li> <li>A shared roadway that is not multilane and has moderately low automobile travel speeds</li> <li>Crossings may be longer or across higher-speed roadways than allowed by LTS 2, but are still considered acceptably safe to most adult pedestrians</li> </ul>	Enthused & Confident
LTS 4	Presenting enough traffic stress to deter all but the Strong & Fearless demographic	<ul> <li>An exclusive cycling zone (lane) next to high-speed and multilane vehicular traffic</li> <li>A shared roadway with multiple lanes per direction with high traffic speeds</li> <li>Cyclists must maneuver through dedicated right-turn lanes containing no dedicated bicycling space and designed for turning speeds faster than bicycling speeds</li> </ul>	Strong & Fearless

Source: Mekuria, et al., (2012)



**Figure 4.4** displays the bicycle LTS results for all roadways and paths in DHS. Most roadways with existing bicycle facilities exhibit LTS 4 or LTS 3 conditions. The only existing bicycle facilities with LTS 1-2 are West Drive from Mission Lakes Boulevard to 5<sup>th</sup> Street (Class II), and Desert View Avenue from West Drive to Verbena Drive (Class III). Palm Drive shows LTS 3 north of Two Bunch Palms Trail, where there is more bicycle activity, and LTS 4 south of Two Bunch Palms Trail, where there is more undeveloped land, though it leads to more regional connections.

Outside of the bicycle network, most major arterials are LTS 4 environments due to high traffic volumes, high posted speed limits, and the presence of right-turn only lanes. Roadways with an LTS 1 or 2 environment are generally residential streets and collectors, characterized as having one lane in each direction while providing adequate width for cyclists and vehicles, low posted speed limits, and low traffic volumes.

**Table 4.5** presents the LTS score results by mileage. About 20% of all roadways are LTS 4, including all major streets within the network. It is worth noting that, while most assessed roadways are LTS 1-2, these roadways are largely internal to neighborhoods without the ability to make interneighborhood or regional connections without using LTS 4 roadways.

Table 4.5 - Mileage by LTS Score

LTS Score	Mileage
LTS 1-2	115.2
LTS 3	3.0
LTS 4	30.8
Total 149.0	
	CR Associates (2025)

**Figure 4.5** displays the number of key destinations (identified in Figure 2.3) that can be accessed via a three-quarter-mile bike ride from the centroid, or center, of each Census Block Group. Where Census Block Groups are divided by the City boundary, each sub-section of the Census Block Group above 10 acres was assigned a separate point. Census Block Groups without existing, paved roads were excluded from the assessment.

The three-quarter-mile bikeshed was then adjusted to account for bicycling conditions using LTS, as shown in **Figure 4.6** The number of destinations accessible to residents living in the City via bike is the highest in the central portion of the city in the four census blocks that meet at the intersection of Palm Drive and Pierson Boulevard.

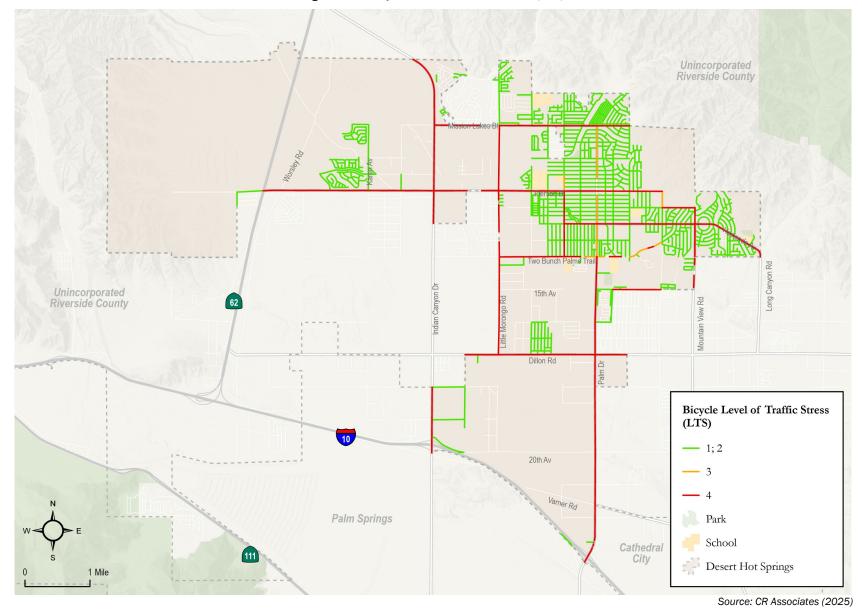


Figure 4.4 - Bicycle Level of Traffic Stress (LTS)



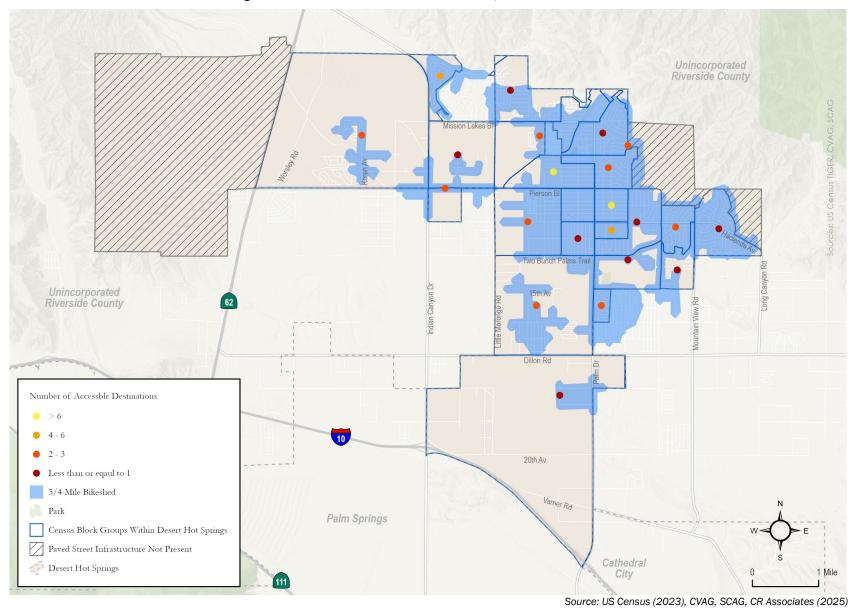


Figure 4.5 - Destinations within Half-Mile of Populated Census Blocks



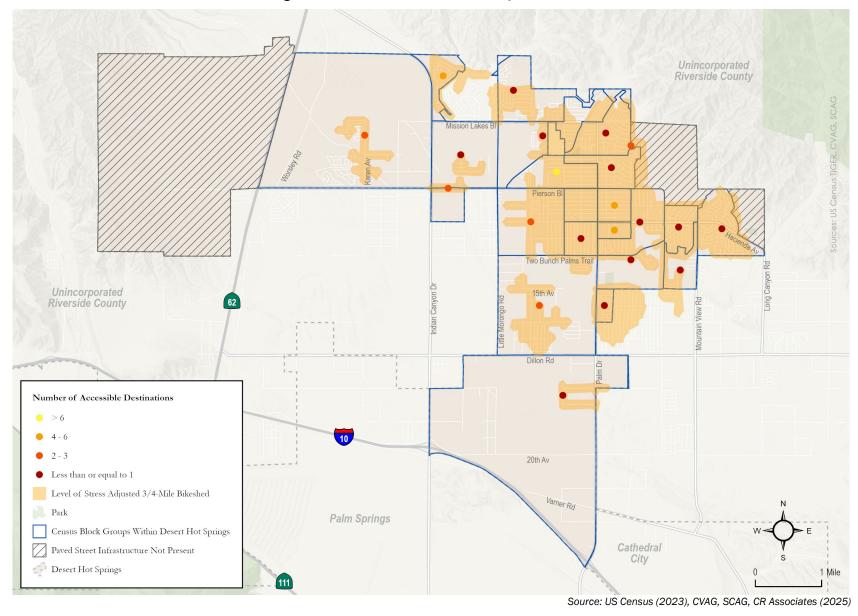


Figure 4.6 - Low Stress Connections to Key Destinations



## 4.3 Safety

### California Office of Traffic Safety Rankings

The California OTS also provides comparisons of traffic safety related to bicycles. As mentioned in the pedestrian section, DHS falls within Group D, which includes 90 cities with a population size between 25,001 and 50,000. For more information about what OTS Safety Ranking are and how these rankings are calculated, see section 3.3 Pedestrian Mobility – Safety.

**Table 4.6** displays the OTS bicycle rankings for DHS and similar-sized cities. Number 1 in the rankings is the worst, while 90 would be the best for Group D.

DHS was ranked the best among other regional peer cities in the "Bicycle" category, with 2 victims killed or injured. However, it ranked the worst of all cities for bicyclists under 15 years of age. This signifies potential for improvement with special attention for vulnerable populations.

Crock Cotogon	Missions Millad O Injured	OTS Ranking out of 90 1 (Worst) to 90 (Best)			
Crash Category	Victims Killed & Injured	DHS	Palm Springs	Coachella	La Quinta
Total Fatal and Injury	166	36 ■	17 ▼	43 🔳	61 🔺
Bicycle	2	83 🛦	44	65 ▲	51 -
Bicyclist < 15	1	37	81 🛦	47 🔳	72 🔺
<b>Key:</b> ▼ = worst-performing third (1-30) ■ = middle-performing third (31-60) Δ = best-performing third (61-90)					

Table 4.6 - CA Office of Traffic Safety Bicycle Rankings

Source: California Office of Traffic Safety (2022); CR Associates (2025)

### **Bicycle-Involved Collision Data**

Collision data can be an indicator of potential deficiencies and barriers related to bicycle travel. Just like the pedestrian collision data, bicycle collision data draws from a five-year period (January 2019 – December 2023) obtained from SWITRS. The analysis was used to identify trends and patterns related to collision locations, causes, and violation codes.

A total of 14 bicycle-involved collisions were reported during the five-year period. Bicycle-involved collision locations are displayed in **Figure 4.7**. Collisions were most concentrated in the central area of DHS. Of the 14 collisions, 6 were reported along Palm Drive, with the rest being located mostly on local streets or collectors. A higher concentration of collisions can be seen around the intersection of Palm Drive and 8th Street.

It is worth noting that bicycle improvements have been gradually made along Plam Drive since 2020. The segment north of Pierson Boulevard, including the intersection with 8<sup>th</sup> Street, was not improved until 2024, which is later than the 5-year data review period. This may be a factor that contributes to reducing collision rates around this location.

Of the 14 bicycle-involved collisions, one resulted in a fatality, and one resulted in a severe injury. **Figure 4.8** shows fatal and severe collision locations. The fatality was reported on Two Bunch Palms Trail, west of Colla Drive, and the severe injury collision happened on Miracle Hill Road, north of Desert View Avenue.



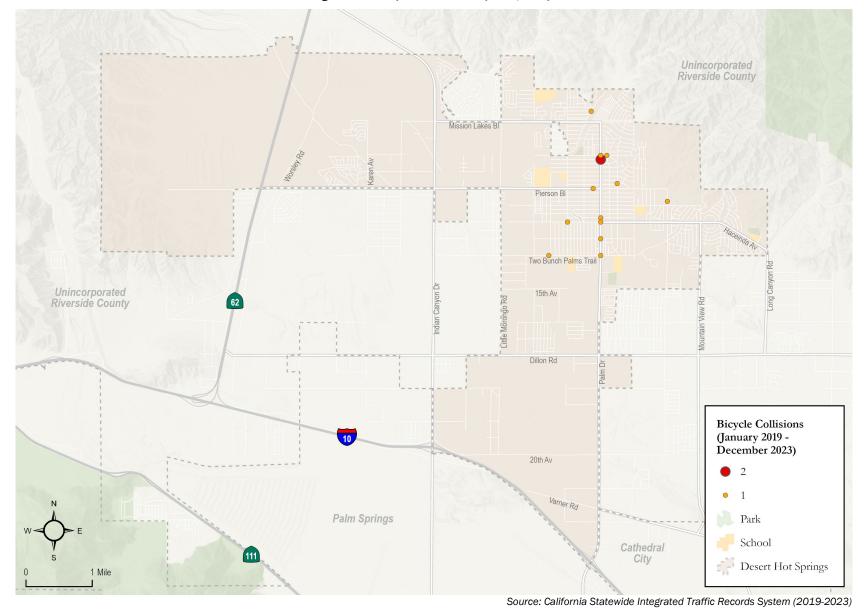


Figure 4.7 - Bicycle Collisions by Frequency



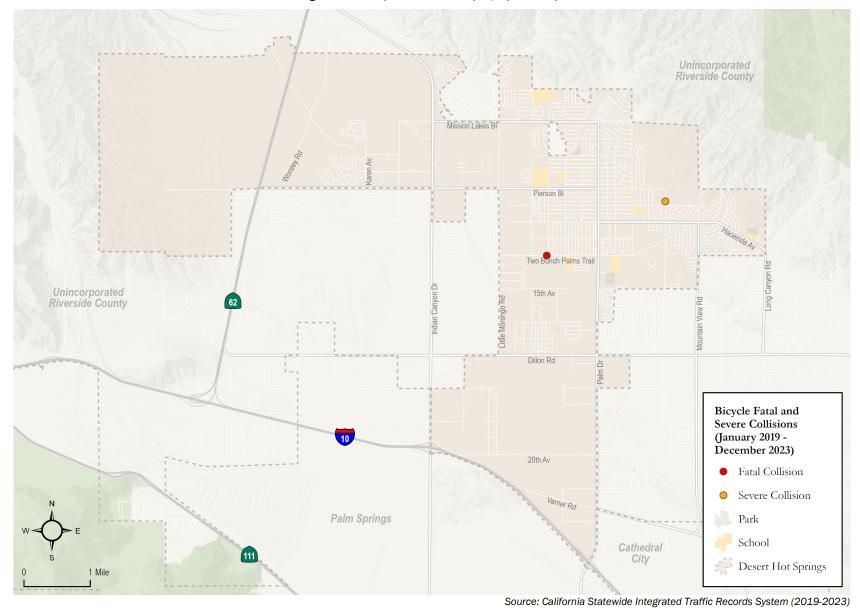


Figure 4.8 - Bicycle Collisions by Injury Severity



**Table 4.7** lists the primary collision causes for the 14 bicycle-involved collisions. The most frequent cause was vehicle right-of-way violations (50%), followed by unsafe speed (21%). Violations related to traffic signals and signs were the cause of 14% (2) of the collisions.

Table 4.7 - Leading Bicycle Collision Causes

Cause	Frequency	Percent of Total
Automobile Right of Way Violation	7	50.0%
Unsafe Speed	3	21.4%
Traffic Signals and Signs	2	14.3%
Wrong Side of Road	1	7.1%
Improper Turning	1	7.1%
Total	14	100%

Source: California Statewide Integrated Traffic Records System (2019-2023)

**Table 4.8** presents the leading bicycle collision violation codes. The most frequent codes were 21804(a), a driver failing to yield the right-of-way to all traffic while approaching a highway from a driveway, and 22350, vehicles failing to drive at a reasonable speed, representing 21% (3) of collision records each. The third most frequent code was 21800(a), a vehicle failing to yield at an intersection, with 2 records assigned (14%). The remaining 6 collisions were assigned with different violation codes each.

Table 4.8 - Leading Bicycle Collision Violation Codes

Violation Co	de & Definition	Frequency	Percent of Total
21804(a)	The driver of any vehicle about to enter or cross a highway from any public or private property, or from an alley, shall yield the right-of-way to all traffic, as defined in Section 620, approaching on the highway close enough to constitute an immediate hazard, and shall continue to yield the right-of-way to that traffic until he or she can proceed with reasonable safety.	3	21.4%
22350	No person shall drive a vehicle upon a highway at a speed greater than is reasonable or prudent having due regard for weather, visibility, the traffic on, and the surface and width of, the highway, and in no event at a speed which endangers the safety of persons or property.	3	21.4%
21800(a)	The driver of a vehicle approaching an intersection shall yield the right-of-way to any vehicle which has entered the intersection from a different highway.	2	14.3%
Other		6	42.9%
Total		14	100.0%

Source: California Department of Motor Vehicles (2024)



# 5.0 Public Transportation Mobility

This chapter provides an overview of public transportation facilities and describes the state of the existing transit environment as it relates to connectivity, quality, and safety. The information presented includes the presence of transit routes and stops and how they relate to existing pedestrian and bicycle infrastructure. Existing bus stop amenities and daily boardings and alightings were assessed to indicate connectivity and quality. Lastly, bicycle and pedestrian collisions with 500' of a transit stop were analyzed to determine safety around public transportation.

# 5.1 Network Connectivity

As shown in Figure 5.1, DHS is served by SunLine Bus Routes 2, 3 and 5.

- Route 2 traverses the City north to south via Palm Drive, with a loop around Mission Lakes Boulevard, West Drive and Pierson Boulevard. It traverses the I-10 and continues to the southern cities of Palm Springs and Cathedral City.
- Route 3 covers the City center along Pierson Boulevard, West Drive, Two Bunch Palms Trail and Palm Drive, and connects to Desert Edge to the east, via Hacienda Avenue.
- Route 5 also traverses the City from north to south via Palm Drive with a small loop around downtown. It then takes the I-10 to the east until it connects to Palm Desert.

Even though DHS is well-served by north-south transit routes and a portion to the east is covered, the far western portion of the City is not currently served by transit. The western portion of the City is largely undeveloped, however, new developments have recently opened or are under construction.

SunLine routes do not currently connect directly to the Palm Springs Amtrak Station, which has round trip service on the combined Sunset Limited/Texas Eagle three times a week. However, Route 2 connects to Downtown Palm Springs and Palm Springs International Airport, which has twice-daily Amtrak Thruway Bus service (Route 39) that connects to the Amtrak and Metrolink Station in Fullerton twice a day.

Currently, every SunLine bus is equipped with a bike rack and bicycles may be loaded or unloaded at any SunLine bus stop.

There are 48 bus stops within the City of DHS. **Figure 5.2** and **Table 5.1** display daily transit ridership by stop. As shown, the West at Pierson bus stop has the highest daily ridership in DHS – and the fourth highest ridership on the SunLine system – with more than 165 boardings and alightings. This bus stop is the convergence point for all three DHS bus routes (2, 3, and 5), and it's close to several key destinations for active transportation, such as the Desert Hot Springs Recreation, Carl May Community Center and Riverside County Department of Public Social Services.



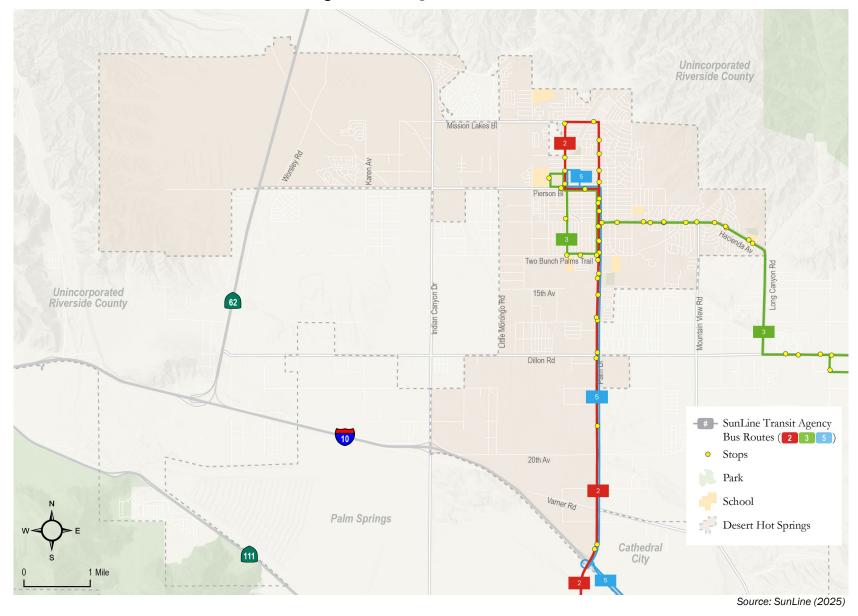


Figure 5.1 - Existing Public Transit Routes

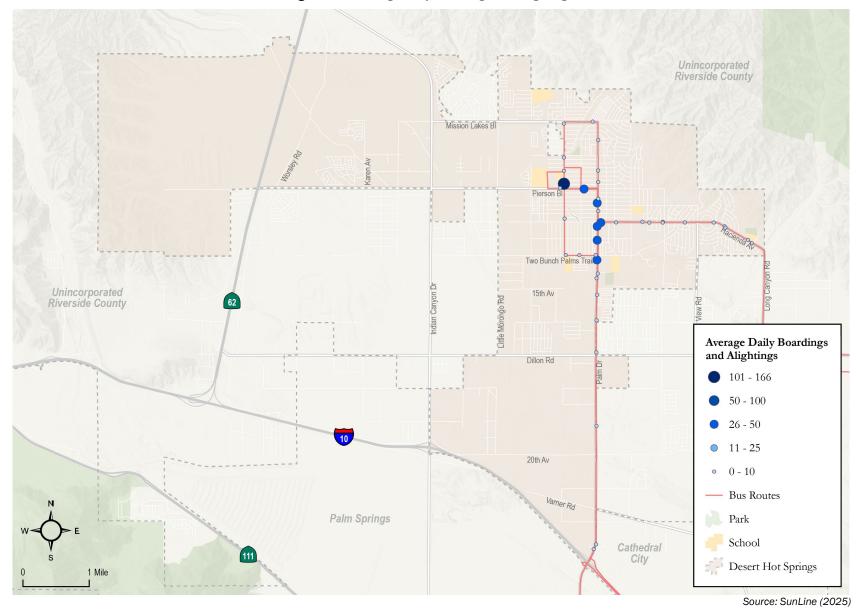


Figure 5.2 - Average Daily Boardings and Alightings



Table 5.1 - Desert Hot Springs Transit Stops and Ridership

Stop ID	Transit Stop	Average Daily Ridership
763	West Dr. at Pierson Blvd. (Southbound (SB))	166
138	Hacienda Ave. at Palm Dr. (Eastbound (EB))	47
5	Palm Dr. at Hacienda Ave. (SB)	45
6	Palm Dr. at Ironwood Dr. (SB)	36
765	Palm Dr. at Two Brunch Palm Tr. (SB)	34
483	Palm Dr. at Buena Vista Ave. (SB)	33
764	Pierson Blvd. at Cactus Dr. (EB)	26
2	Palm Dr. at Hacienda Ave. (Northbound (NB))	24
1	Palm Dr. at Two Bunch Palm Tr. (NB)	19
904	Hacienda Ave. at Mountain View Rd. (Westbound (WB))	15
488	Palm Dr. at Palm Drive Mobile Estates (SB)	15
489	Palm Dr. at Dillon Rd. (SB)	14
602	Cholla Dr. at 4th St. (NB)	11
824	Palm Dr. at 8th St. (NB)	11
619	Palm Dr. at Ironwood Dr. (NB)	11
134	Two Bunch Palms Tr. at Palm Dr. (WB)	9
615	Palm Dr. at Dillon Rd. (NB)	9
8	Palm Dr. at Sky Haven (SB)	9
616	Palm Dr. at Camino Aventura (NB)	8
821	Hacienda Ave. at Foxdale Dr. (WB)	8
859	Hacienda Ave. at Don English Wy. (WB)	8
826	Mission Lakes Blvd. at El Mirador Blvd. (WB)	7
905	Hacienda Ave. at Acacia Ave. (WB)	6
621	Palm Dr. at Buena Vista Ave. (NB)	5
789	West Dr. at Mission Lakes Blvd. (SB)	5
482	Palm Dr. at Paul (SB)	5
823	Palm Dr. at 4th St. (NB)	4
481	Palm Dr. at Paul Rd. (NB)	4
618	Palm Dr. at Park Ln. (NB)	4
3	Palm Dr. at Estrella Ave. (NB)	3
813	Palm Dr. at 1St. St. (NB)	3
135	Two Bunch Palms Tr. at West St. (WB)	3
820	Hacienda Ave. at Miracle Hill Rd. (WB)	2
449	Hacienda Ave. at Mountain View Rd. (EB)	2
827	West Dr. at 8th St. (SB)	2
825	Palm Dr. at 12th St. (NB)	2
830	Hacienda Ave. at Tamar Dr. (EB)	2



Stop ID	Transit Stop	Average Daily Ridership
829	Hacienda Ave. at Mesquite Ave. (EB)	2
617	Palm Dr. at Camino Companero (NB)	1
136	West Dr. at Granada Ave. (NB)	1
832	Hacienda Ave. at Hidalgo St. (EB)	1
612	Palm Dr. at 20th Ave (NB)	1
454	Hacienda Ave. at Peak St. (EB)	1
762	West Dr. at 4th St. (SB)	1
325	Two Bunch Palms Tr. at Cactus Dr. (WB)	1
831	Hacienda Ave. at Miracle Hill Rd. (EB)	1
301	Pierson Blvd. at West Dr. (WB)	<1
906	Hacienda Ave. at Avn. La Vista (EB)	<1

Source: SunLine (2025)

# 5.2 Transit Stop & Network Quality

Transit quality is related to the frequency of service, amenities – including information – provided at each stop, and access to and from transit stops.

Routes 2 and 3 operate on half-hour headways starting at 5:00am with service ending at 10:30pm and 8:35pm, respectively. Route 5 operates on one-hour headways during peak morning and afternoon/evening periods.

The SunLine Transit Design Manual (2006) includes guidelines on passenger amenities at transit stops. Suggested standard and optional amenities should be provided depending on the intensity of use of the bus stop, with higher ridership stops having higher qualities of amenities. **Table 5.2** shows the standard (■) and optional (●) amenities for each range of stops by daily boardings.

| Paily Boardings | Paily Boar

Table 5.2 - Recommended Amenities by Daily Boardings

**Key**: ■ = Standard • = Optional



**Table 5.3** presents the amenities present at each transit stop and highlights the standard suggested amenities missing based on the existing ridership. As shown, the existing stops align with the Design Manual's standard amenities. The one exception is bus pads, which are not present at the stops. Due to the higher frequency of service and ridership, DHS should consider installing bus pads at Bus Stop #763, West Drive and Pierson Boulevard, South Bound (SB) and other higher ridership stops.

Table 5.3 - Transit Stop Amenities

		EXISTING AMENITIES <sup>1</sup>																
BUS S		Sign and pole	Built-in sign	Public roadway	Expanded sidewalk	Accessible	Seating	Passenger shelter	Route designations	Timetable	Route map	System map	Trash receptacle	Telephone	Park and ride	Bus pads	Red curbs	Lighting
763	Name West Dr. at Pierson Blvd.		0			_						0		0	0			
138	(SB) Hacienda Ave. at Palm Dr. (EB)	-		-	0	-	-	•		•	•		•	0	0		-	•
5	Palm Dr. at Hacienda Ave. (SB)	•			•		•	•		•	•		•	0	0		•	•
6	Palm Dr. at Ironwood Dr. (SB)	•		•	•	•	•	•	-	•	•		•	0	0		•	0
765	Palm Dr. at Two Brunch Palm Tr. (SB)	•		•	0	•	•	•	•	•	•		•	0	0		•	•
483	Palm Dr. at Buena Vista Ave. (SB)	•		•	0	•		•		•	•		•	0	0		•	•
764	Pierson Blvd. at Cactus Dr. (EB)	•		•	0	•	•	•	•	•	•		•	0	0		•	•
2	Palm Dr. at Hacienda Ave. (NB)	•		-	0	•	•	•	•	•	•		•				-	•
1	Palm Dr. at Two Bunch Palm Tr. (NB)	•		•	0	•	•	•	•	•	•		•				-	•
904	Hacienda Ave. at Mountain View Rd. (WB)	-		-	0	-	•	•	•	•	•		•				-	•
488	Palm Dr. at Palm Drive Mobile Estates (SB)	•		•	0	•	•	•		•	•		•				-	•
489	Palm Dr. at Dillon Rd. (SB)	•		•	0	•	•	•	•	•	•		•				•	•
602	Cholla Dr. at 4th St. (NB)	•		•	0	•	•	•	•	•	•		•				•	•
824	Palm Dr. at 8th St. (NB)	-		-	0	-	•	•	•	•	•		•				-	•
619	Palm Dr. at Ironwood Dr. (NB)	•		-	0	•	•	•	•	•	•		•				-	•
134	Two Bunch Palms Tr. at Palm Dr. (WB)	•		•	0	•	•	•	•	•	•		•				•	•
615	Palm Dr. at Dillon Rd. (NB)	•		•	0	•	•	•	•	•	•		•				•	•
Key: ■	= Standard, present □ = Standar	d, not	t pres	ent		• = (	ption	nal, pr	esen	t	0 =	= Opti	onal,	not p	reser	nt		



		EXISTING AMENITIES 1																
BUS S	этор	Sign and pole	Built-in sign	Public roadway	Expanded sidewalk	Accessible	Seating	Passenger shelter	Route designations	Fimetable	Route map	System map	Frash receptacle	Felephone	Park and ride	Bus pads	Red curbs	Lighting
#	Name	(U)	ш	ш	ш	٩	(O)	ш	Щ	_	Щ	(U)	_	-	ш	ш	Щ	
8	Palm Dr. at Sky Haven (SB)	•		•	0	•	•	•	•	•	•		•				•	•
616	Palm Dr. at Camino Aventura (NB)	•		•	0	•	•	•	•	•	•		•				•	•
821	Hacienda Ave. at Foxdale Dr. (WB)	•		•	0	•	•	•	•	•	•		•				•	•
859	Hacienda Ave. at Don English Wy. (WB)	•		•	0	•	•	•	•	•	•		•				•	•
826	Mission Lakes Blvd. at El Mirador Blvd. (WB)	•		•	0	•	•	•	•	•	•		•				•	•
905	Hacienda Ave. at Acacia Ave. (WB)	-		-	0	-	•	•	•	•	•		•				•	•
621	Palm Dr. at Buena Vista Ave. (NB)	•		•	0	•	•	•	•	•	•		•				•	•
789	West Dr. at Mission Lakes Blvd. (SB)	-		•	0	-	•	•	-	•	•		•				•	•
482	Palm Dr. at Paul (SB)	•		•	0	•	•	•	•	•	•		•				•	•
823	Palm Dr. at 4th St. (NB)	•		•	0	•	•	•	•	•	•		•				•	•
481	Palm Dr. at Paul Rd. (NB)	•		•	0	•	•	•	•	•	•		•				•	•
618	Palm Dr. at Park Ln. (NB)	•		•	0	•	•	•	•	•	•		•				•	•
3	Palm Dr. at Estrella Ave. (NB)	•		•	0	•	•	•	•	•	•		•				•	•
813	Palm Dr. at 1St. St. (NB)	•		•	0	•	•	•	•	•	•		•				•	•
135	Two Bunch Palms Tr. at West St. (WB)	•		•	0	•	•	•	•	•	•		•				•	•
820	Hacienda Ave. at Miracle Hill Rd. (WB)	-		•	0	-	•	•	•	•	•		•				•	•
449	Hacienda Ave. at Mountain View Rd. (EB)	•		•	0	-	•	•	•	•	•		•				•	•
827	West Dr. at 8th St. (SB)	-		•	0	•	•	•	•	•	•		•				•	•
825	Palm Dr. at 12th St. (NB)	-		•	0	•	•	•	•	•	•		•				•	•
830	Hacienda Ave. at Tamar Dr. (EB)	-		•	0	•	•	•	•	•	•		•				•	•
829	Hacienda Ave. at Mesquite Ave. (EB)	•		•	0	•	•	•	•	•	•		•				•	•
<b>Key</b> : ■ = Standard, present □ = Standard, not present • = Optional, present O = Optional, not present																		



		EXISTING AMENITIES <sup>1</sup>																
BUS S		Sign and pole	Built-in sign	Public roadway	Expanded sidewalk	Accessible	Seating	Passenger shelter	Route designations	Timetable	Route map	System map	Trash receptacle	Telephone	Park and ride	Bus pads	Red curbs	Lighting
# 617	Name Palm Dr. at Camino Companero (NB)			•	0	•	•	•	•	•	•		•					•
136	West Dr. at Granada Ave. (NB)	-		-	0	•	•	•	•	•	•		•				•	•
832	Hacienda Ave. at Hidalgo St. (EB)	-		•	0	•	•	•	•	•	•		•				•	•
612	Palm Dr. at 20th Ave (NB)	•		•	0	•	•	0	•	•	•		•				-	•
454	Hacienda Ave. at Peak St. (EB)	-		•	0	•	•	•	•	•	•		•				•	•
762	West Dr. at 4th St. (SB)	•		•	0	•	•	•	•	•	•		•				•	•
325	Two Bunch Palms Tr. at Cactus Dr. (WB)	•		•	0	•	0	0	•	•	0		0					0
831	Hacienda Ave. at Miracle Hill Rd. (EB)	-		•	0	-	•	•	-	•	•		•				-	•
301	Pierson Blvd. at West Dr. (WB)			•	0	•	0	0		0	0		0				•	0
906	Hacienda Ave. at Avn. La Vista (EB)	-		-	•	•	0	0	•	•	0		0				•	0
									Sou	ırce: S	SunLi	ne Tra	ansit,	Goog	jle Ma	ips, C	RA (2	2025)

**Key**: ■ = Standard, present

 $\square$  = Standard, not present

= Optional, present

O = Optional, not present

#### Note

1. This table excludes non-public roadways, permanent structures, and individual bus bays as these features are not present at any bus stop in Desert Hot Springs and are not suggested as standard or optional features based on the Sunline Transit Design Manual (2006).

**Figure 5.3** shows public streets within a half-mile of transit stops where sidewalks are present and missing. The areas where there are missing sidewalks indicate opportunities to improve first/last mile access, especially where the stops have higher ridership rates.

**Figure 5.4** illustrates the Pedestrian Connectivity Ratio from transit stops based on a half-mile network analysis. This analysis includes both a baseline and a PES-adjusted network, as explained in section 3.2, Pedestrian Mobility – Network Quality. In the PES-adjusted network, routing was prohibited on segments with a Very Low PES score to reflect their unsuitability for pedestrian travel. To further account for the relative comfort of the pedestrian environment, segment lengths were adjusted based on PES scores: segments with a PES of Low had their distance values multiplied by 3, while those with a PES of Medium were multiplied by 2. For example, a segment originally measured at 50 feet would be treated as 150 feet if it scored as Low PES in the adjusted network. These adjusted distances inform the connectivity ratio.

As shown, the majority of the network is less connected than the street network alone might convey, with the PES-adjusted network (orange) falling short of the potential network access (blue). Bus stops that exhibit the greatest connectivity are nearly exclusively in the northern portion of the town,



on or north of Pierson Boulevard and on or west of Palm Drive. The majority of stops along or south of Two Bunch Palms Trail have extremely limited network connectivity – both PES-adjusted and not adjusted – due to the limited presence of street networks and lack of sidewalks. The disparity between potential and adjusted walksheds indicates that there is room for improvement.

**Figure 5.5** illustrates the locations of bus stops overlayed on streets within one-half mile with LTS scores of 3 or 4, representing higher levels of traffic stress for bicyclists. As shown, bus stops are largely located along uncomfortable or high stress roadways. The City's strong street grid and short block spacing downtown provides ample alternative parallel routes with more favorable bicycling environments, however, utilizing these roadways may result in out of direction travel, increasing the overall time required to access bus services.

**Figure 5.6** displays bicycle connectivity ratio from transit stops. Similar to the walksheds shown in Figure 5.4, a one-half mile bikeshed was assessed on existing roads. The assessment was then modified to reflect the level of stress exerted on bicyclists by the existing environment by modifying travel distances based on Level of Travel Stress (LTS) scores. For more information on LTS, see section 4.2, Bicycle Mobility – Network Quality.

As shown, the LTS-adjusted (orange) bikesheds extend nearly as far as the unadjusted (blue) bikesheds. This indicates that in areas where there are transit stops, there are also roadway options with posted speed limits low enough that stress while cycling is not an issue. However, south of Dillon Road, the unadjusted bikeshed exceeds the reach of the LTS-adjusted bikeshed, indicating that improvements, such as separation from vehicles, may be needed to increase comfort for all or most bicyclists.

# 5.3 Safety

Transit riders frequently access stations by walking or riding a bike, emphasizing the importance of ensuring safe active transportation mobility surrounding transit stop areas. Determining collision hotspots can inform future safety improvements, policies, and programs along with implementation prioritization. **Figure 5.7** displays the locations of pedestrian- and bicycle-involved collisions with 500' of a transit stop. The highest concentrations were found around bus stops located at the intersection of Palm Drive and Hacienda Avenue and the intersection of Palm Drive and Two Bunch Palms Trail.



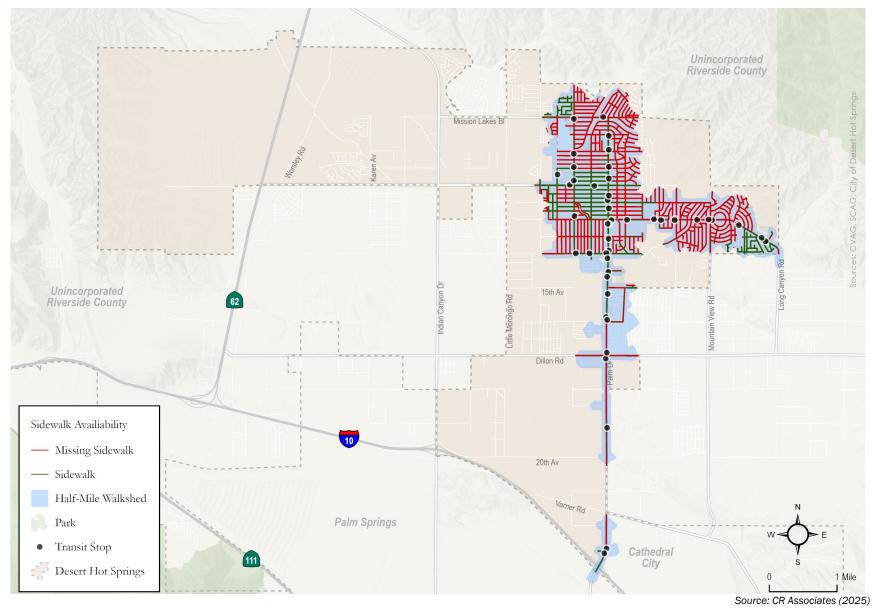


Figure 5.3 - First/Last Mile Sidewalk Gaps

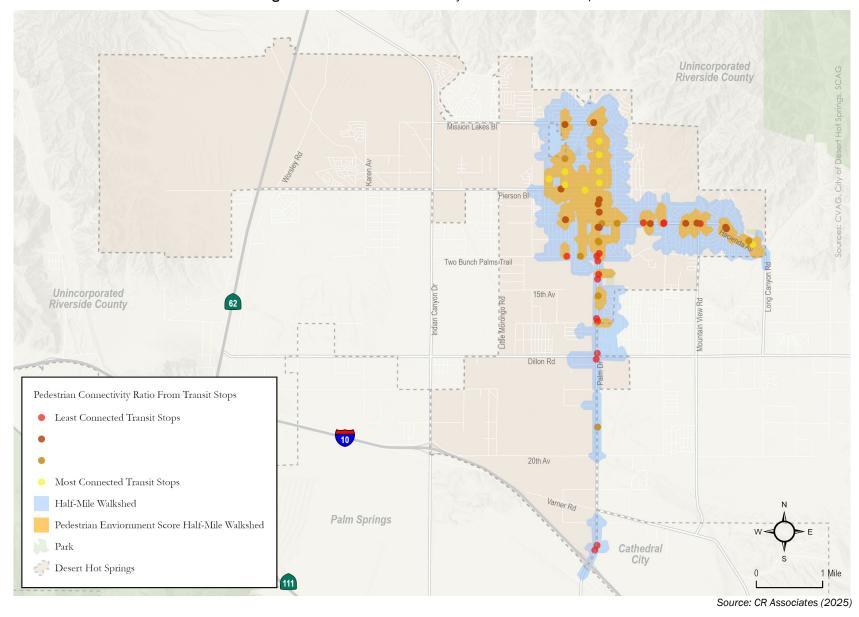


Figure 5.4 - Pedestrian Connectivity Ratio from Transit Stops



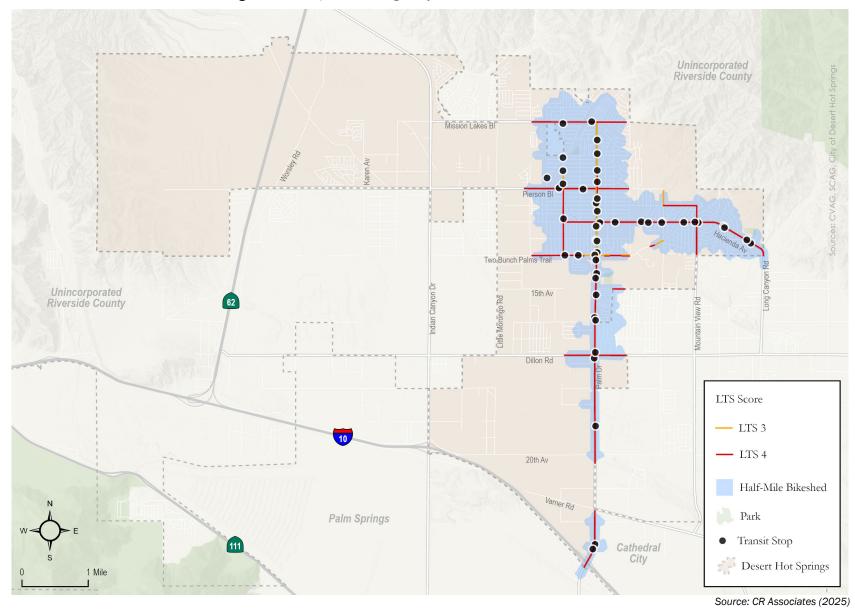


Figure 5.5 - First/Last Mile High Bicycle Level of Traffic Stress Locations



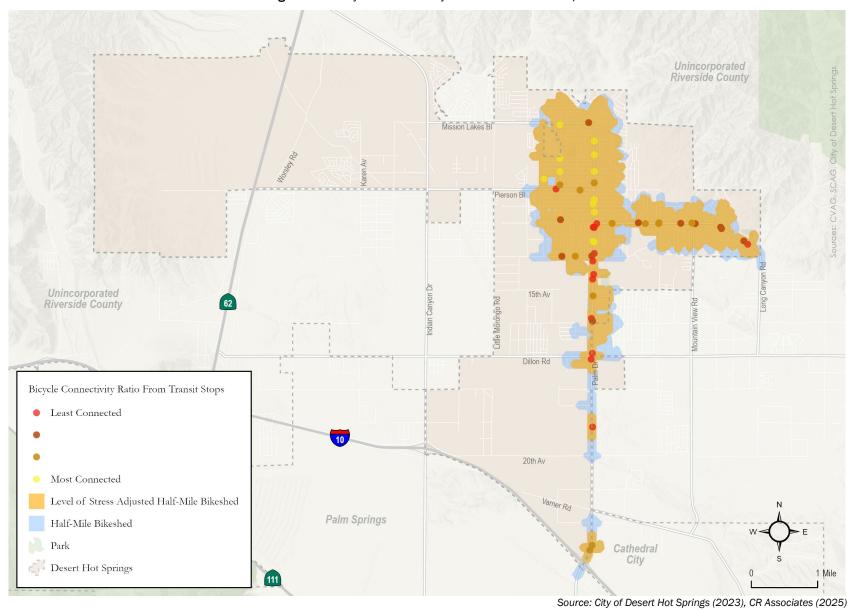


Figure 5.6 - Bicycle Connectivity Ratio from Transit Stops



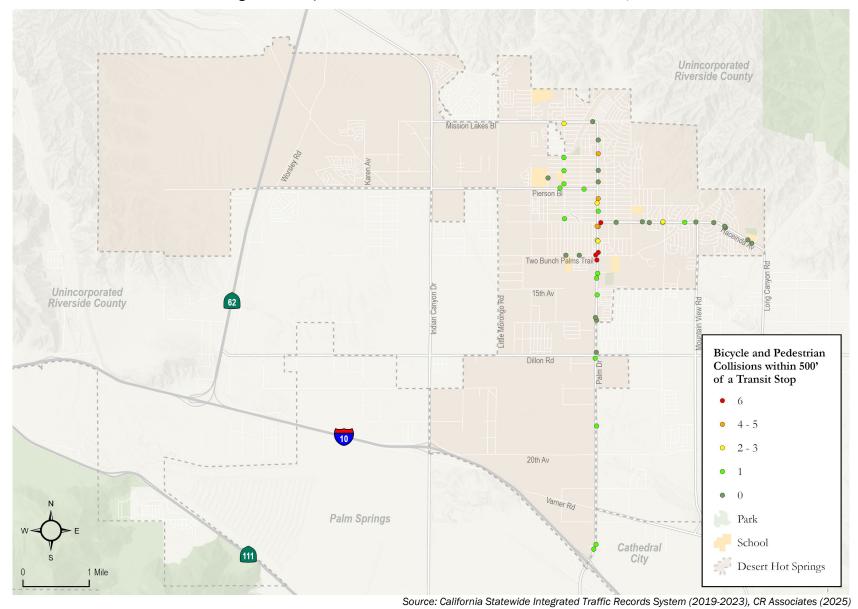


Figure 5.7 - Bicycle and Pedestrian Collisions with 500' of a Transit Stop



# 6.0 Conclusion / Key Findings

This chapter summarizes the opportunities and constraints identified through the existing conditions analysis. The synthesis incorporates information derived from the review of existing documents, demographics and equity indicators, existing infrastructure, active transportation patterns, transit service and facilities, and collision history.

Pedestrian and bicycle infrastructure should provide users with safe and comfortable environments while facilitating connections to destinations and between communities. Safety and comfort are paramount considerations for pedestrians and cyclists, since by nature, they are more sensitive to the characteristics of the roadway environment compared to those traveling by automobile. A slight gap in infrastructure or comfortable conditions can deter users from a particular route or alter the choice of transportation mode.

The findings from this Existing Conditions Report, combined with input from community members and agency stakeholders, will be used to inform the identification of infrastructure and programmatic recommendations. ATP recommendations will assist the development of active transportation infrastructure comprised of facilities that support and encourage trips for users of all ages and abilities.

**Figure 6.1** and the text below summarize some of the key opportunities and constraints identified through this existing conditions assessment.

#### Retrofit existing roadways with context appropriate active transportation enhancements.

As Desert Hot Springs continues to grow, the need for a comprehensive multimodal transportation network becomes more apparent. Many of the existing roadways lack continuous sidewalks, accessible curb ramps, dedicated bicycle facilities and marked crosswalks. In some areas, the existing infrastructure is incompatible with the roadway environments, such as bike lanes along high-speed roadways. The City recently retrofitted portions of Palm Drive with high visibility crosswalks and crossing features, as well as buffered bike lanes and supporting green conflict paint. Continuing the improvement of existing infrastructure with context appropriate enhancements for active transportation users will benefit existing and future community members, while expanding viable transportation options.

#### Leverage undeveloped areas as opportunities and build upon adopted planning efforts.

Most land in the City is undeveloped, however, the City's General Plan (2020) provides a long-term blueprint for future development of land and public rights-of-way. The undeveloped lands and roadways represent unique opportunities to identify and plan for optimal environments that are supportive of safe, comfortable, and well-connected transportation facilities. Wide sidewalks supported by enhanced crossing treatments, bike facilities that are physically separated from high-speed and high-volume roadways, accessible and inviting transit stops, and traffic calmed neighborhood streets are examples of outcomes to strive for that will support conditions that are inviting and useful for community members. The activity centers, development patterns, and transportation networks identified in the General Plan will serve as a foundation to build from.

#### Enhance bus stop access.

Desert Hot Springs exhibits a relatively high rate of residents that do not own a personal motor vehicle. The City is also home to the bus top with the fourth highest ridership in the Coachella Valley, located in the southbound direction of West Drive and Pierson Boulevard, where an average of 166 passengers board or alight each day. The rate of DHS residents that commute via public transportation are approximately three times higher than the Riverside County average. This



information indicates a significant reliance on public transportation, and in turn, the need for safe and convenient bus stop access.

### Connections to regional facilities, adjacent jurisdictions, and destinations.

Desert Hot Springs has the opportunity to strengthen access to the regional transportation and recreation network through improved connections to facilities such as the in-progress CV Link and Dillon Road – an identified corridor in the Desert Recreation District and Riverside County Regional Park and Open-Space District's Regional Trails Corridor Study – which provide access to local and regional jobs and destinations beyond the City's borders. Improved links to trailheads and the area's hiking trail network can provide low-cost, health-promoting access to open space for residents and visitors alike. In addition, enhancing access to the Amtrak station in North Palm Springs would help reduce barriers to using the thrice-weekly service, enabling viable travel across Southern California and the southwestern United States. At present, limited infrastructure and challenging roadway conditions constrain access to these regional facilities and services. Investments in safe and connected routes, supported by wayfinding, will open new opportunities for both everyday travel and recreational mobility.

### Address leading collision locations and causes.

Recent data shows that many pedestrian and bicycle collisions in Desert Hot Springs occur along centrally located streets such as Palm Drive, where wide roadway design, high speeds, and limited crossing infrastructure increase exposure risk. Addressing these conditions through traffic calming, high-visibility crosswalks, and other safety-focused design strategies can reduce the likelihood and severity of collisions. In addition to physical improvements, education and enforcement programs can target the most common causes of crashes—such as driver failure to yield or unsafe speeds—and support a culture of safety for all road users. Understanding the safety concerns of community members and agency stakeholders is essential to developing effective solutions that reflect lived experiences and local conditions.



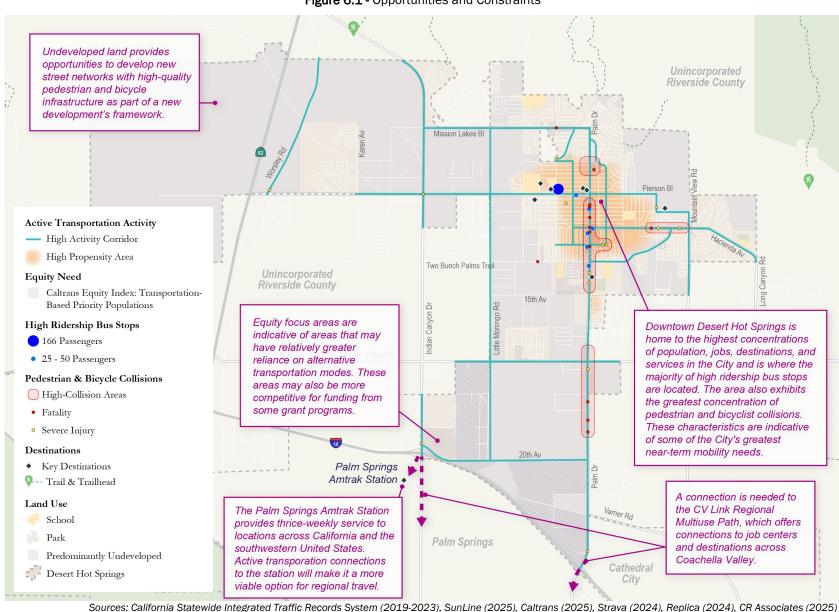


Figure 6.1 - Opportunities and Constraints