

# Coast, Canyons, and Trails

JANUARY 2023 / DRAFT

## COMPREHENSIVE MULTIMODAL CORRIDOR PLAN

**SANDAG** |  **Caltrans**



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**CMCP Purpose.** A CMCP is required to be eligible for certain sources of State funding, such as the Solutions for Congested Corridors Program (SCCP), funded by Senate Bill 1 (SB1) which can then be leveraged for various other local, state, and federal funding opportunities. Funds made available for the program shall be allocated by the California Transportation Commission to projects designed to achieve a balanced set of transportation, environmental, and community access improvements within highly congested travel corridors throughout the state.

**CMCP Process.** The CMCP process is designed to understand the characteristics of the CCT Corridor and create equitable and sustainable solutions for residents, commuters, and visitors. The Draft CCT CMCP is based on an integrated planning process that brings together residents, local jurisdictions, and other partner agencies. It utilized a multimodal approach to create a balanced, equitable transportation system that integrates mobility options such as driving, biking, walking, transit, micromobility, and other mobility services to move people and goods within the designated corridor and beyond.

**CCT Study Area.** The CCT Corridor extends from La Jolla in the west to Santee in the east and includes communities adjacent to State Route 52 (SR 52) as well as areas surrounding State Route 67 (SR 67) between El Cajon and Lakeside. The CCT Corridor passes through diverse communities, employment centers, and recreational areas and is critical for the daily movement of people, goods, and wildlife. Home to some of the largest areas of employment in the San Diego region, the CCT Corridor is an important connection to jobs and housing, with mostly residential areas to the east connecting with major employment centers such as Kearny Mesa, University of California San Diego (UCSD), University City and Sorrento Valley to the west.

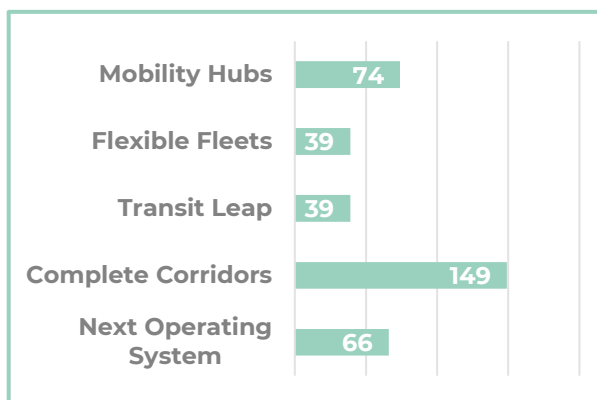
**Corridor Context.** The project team evaluated the existing conditions of the corridor, documenting the inventory of existing transportation infrastructure, current transit service, economic conditions, and population characteristics, as well as future economic and population characteristics. The CMCP team was also careful to document social equity characteristics such as race, income, zero-car households, and senior populations which allowed the project team to consider equity for future transportation scenarios. The 2050 horizon year is used as the basis for population, economic, and ridership forecasts, which are interpreted to illustrate what the corridor may look like in the future. The CCT Corridor has several areas projected to have significant growth, including El Cajon, Kearny Mesa and the University City area.

The corridor is uniquely defined by the sensitive landscapes and protected lands such as slopes and canyons, parks, and a nearby military facility located in the center of the corridor. These open spaces separate El Cajon, Santee and East County communities from the major regional employment centers located in the west. Currently, the CCT Corridor is very auto-dependent, with gaps in the active transportation and transit networks that make use of these alternative modes difficult.

**Engagement.** A comprehensive outreach process was developed and implemented to inform and help develop the transportation solution strategies (TSS) for the CCT CMCP. The social distancing requirements of the COVID-19 pandemic brought unique challenges to public engagement where engagement activities were held online and publicized through social and local media as well as community advocacy groups. The process engaged technical subject matter experts (SMEs), local partner agencies, various planning working groups, and the general public. Meetings were held to help identify key needs, draft an inventory of transportation solution strategies, and provide feedback on the implementation plan. The outreach process helped ensure an inclusive approach to the development of the CCT CMCP.

**Transportation Solution Strategies.** The TSS proposed in this plan align with the SANDAG 2021 Regional Plan and its five transformational strategies—the 5 Big Moves—integrated into one regional transportation system. The strategies are designed to enhance equitable access and comprehensive mobility for everyone, especially for equity focused communities. This includes equitable access to recreational facilities, which are currently difficult to access without a car.

*Proposed TSS by 5 Big Moves Category*



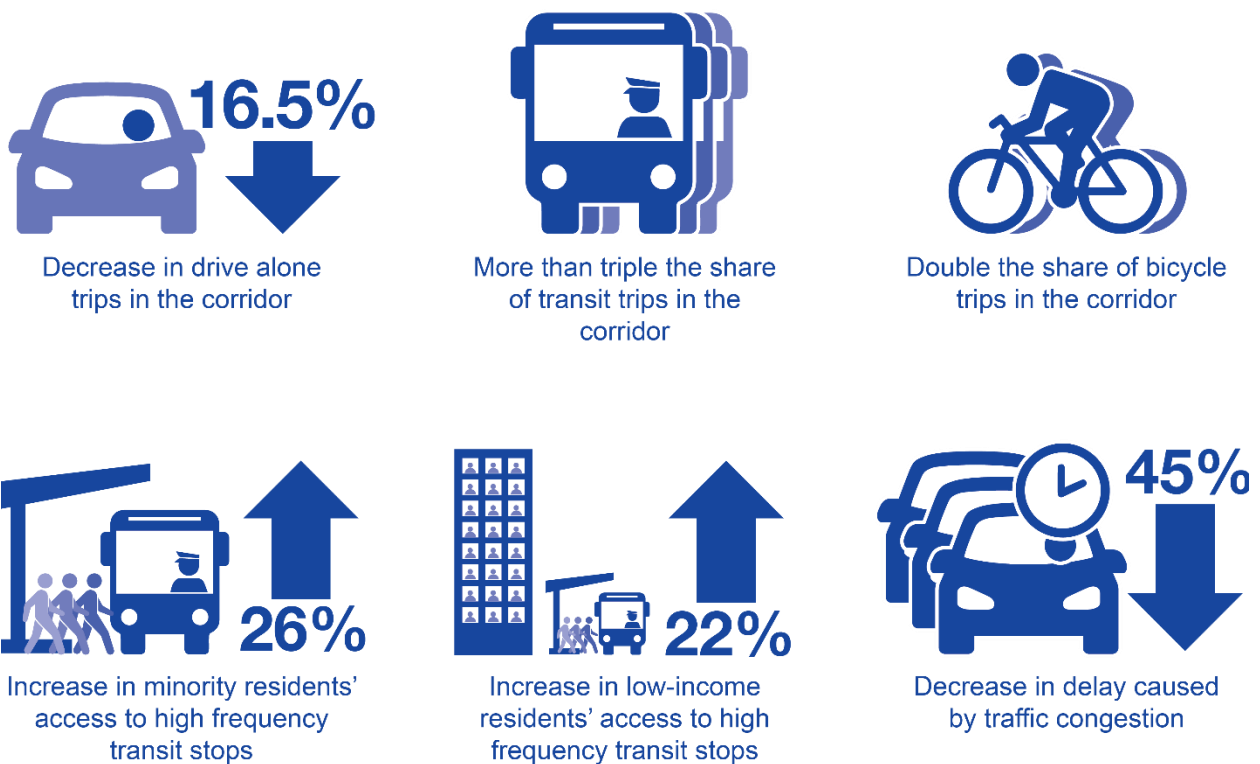
The CCT CMCP includes 367 solutions, with careful consideration for how these solutions create equitable access to employment and other key activity centers by connecting these destinations via direct and frequent transit service and other transportation options. The plan identifies key locations of population and employment densities and equity factors where mobility hubs serve as key connection points to other transit. Access to and from the mobility hubs is expanded with first/last mile connections to the surrounding communities via new bikeways, micromobility, and microtransit services. The TSS work together across the 5 Big Moves to achieve an equitable and balanced multimodal transportation system for the CCT Corridor.

**Multimodal Corridor Alternatives.** The TSS are organized into three alternatives for review and analysis. Alternative 1 includes the planned projects in the 2021 Regional Plan, with no modifications to the plan’s TSS for the corridor. Alternatives 2 and 3 expand upon Alternative 1 with refined and additional *Rapid* routes, improved transit centers, and first/last mile connections to mobility hubs that expand the reach of transit.

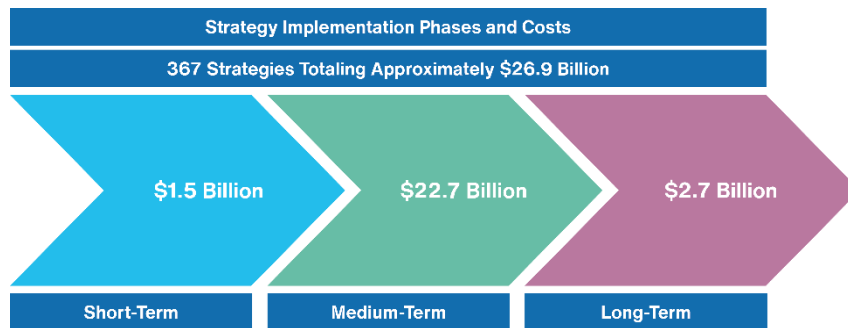
All three alternatives provide substantial benefits as compared to the no build alternative from the 2021 Regional Plan:

- Increases access to high frequency transit for low-income and minority populations,
- Improves access to the region's largest employment centers and education campuses, and
- Reduces traffic congestion, and air pollution.

*Average Benefits of the CMCP Build Alternatives Compared to the No Build*



**Implementation.** All 367 TSS are evaluated against criteria such as cost, right-of-way needs, and environmental considerations to determine the implementation timeframe: short- (less than 5 years), medium- (6 to 15 years), or long-term (more than 15 years). The rough order of magnitude costs are primarily estimated by using methods from the 2021 Regional Plan and other CMCPs. Other costs that were not included in the SANDAG Regional Plan process or other CMCPs were identified through discussions with subject matter experts.



Securing new funding for the CCT CMCP will be necessary to implement the proposed solutions by 2050. The funding for these strategies is partially programmed in the 2021 Regional Plan but will have to be augmented by alternative State and Federal sources such as SBI funding.

SANDAG, Caltrans, and members of the CCT CMCP project team will continue to collaborate to advance the development of projects and programs proposed in the CCT Corridor. The project team will also continue to engage stakeholders as necessary to help refine recommended strategies.

# Chapter 1. Introduction

## Introduction

SANDAG and Caltrans developed this Comprehensive Multimodal Corridor Plan (CMCP) to address the current and future multimodal needs of the Coast, Canyons, and Trails (CCT) Corridor. A CMCP strives to create equitable and sustainable solutions for people living in the community and focuses on things such as transit, managed lane priorities, goods movement, climate impacts, environmental considerations, technology, and local road connections including bicycle and pedestrian connections.

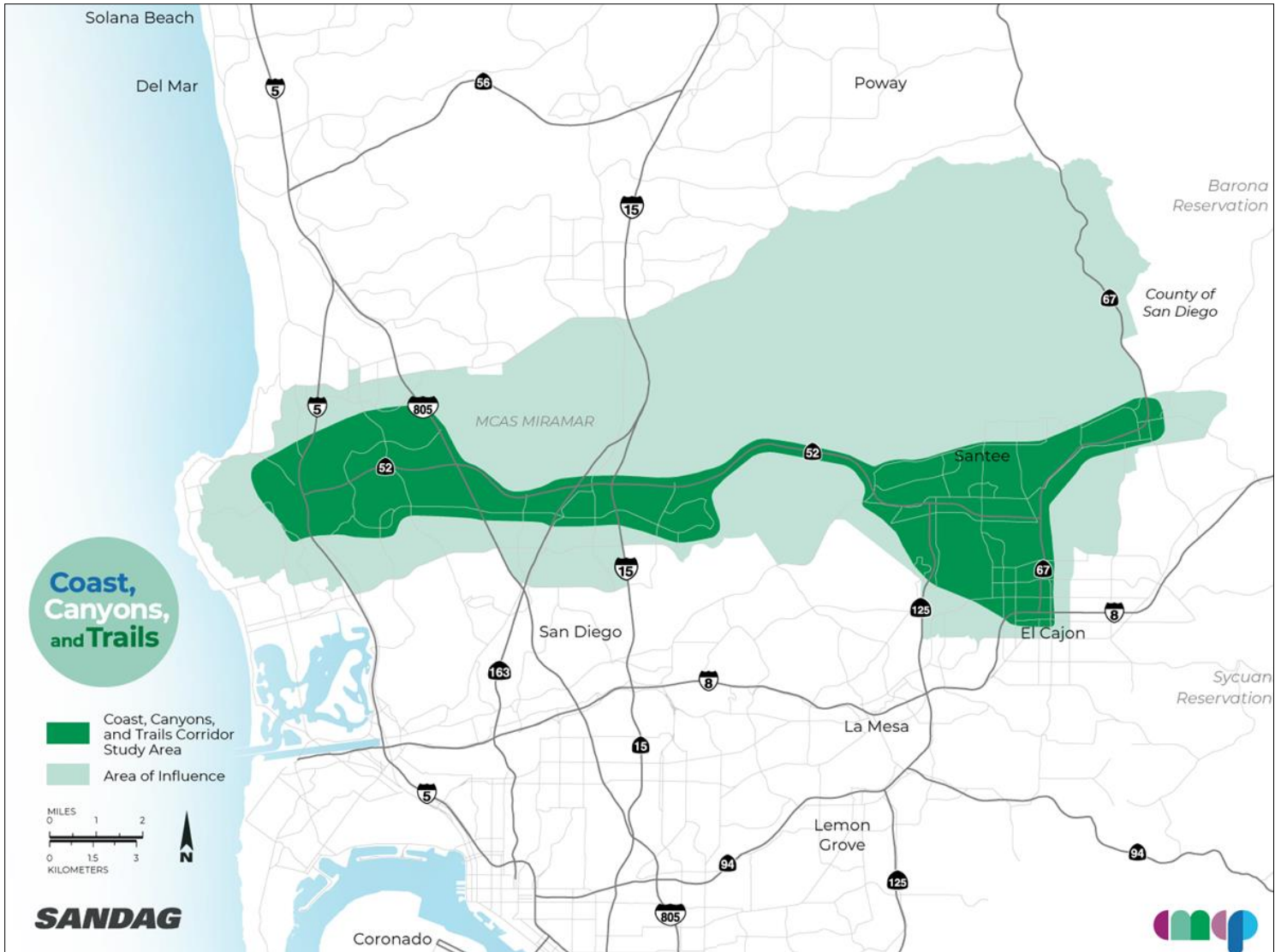
The CCT Corridor, as shown in **Figure 1-1**, passes through diverse communities, employment centers, and recreational areas and is critical for the daily movement of people, goods, and wildlife. These factors make it necessary for SANDAG, Caltrans, local communities, and the people who regularly travel through the area to achieve the vision of a technologically advanced, balanced, and integrated multimodal transportation system.

Based on the characteristics and needs of the CCT Corridor, SANDAG and Caltrans have recommended a package of projects, programs, and policies in which the region can invest to create a safe, equitable, reliable, and intelligent transportation system of the future. This CMCP highlights the proposed transportation solutions with the general timeline and estimated costs for implementation. The appendices to this document provide extensive details on the technical aspects of the plan, including how strategies were evaluated through research, analysis, community input, and strategic implementation.

SANDAG and Caltrans would like to thank representatives who served on the project team and the participation of community-based organizations, partner agencies, and community members that contributed to the development of this plan.



Figure 1-1 CCT CMCP Study Area and the Area of Influence



## WHAT IS A COMPREHENSIVE MULTIMODAL CORRIDOR PLAN (CMCP)?

A CMCP is a strategic blueprint for identifying and implementing multimodal projects and services within communities predominantly along a specific corridor. The document is based on an integrated, ground-up planning process that brings together residents, local jurisdictions, tribal governments, and other partner agencies.

A CMCP utilizes a multimodal planning process to create a balanced, equitable transportation system that integrates mobility options such as driving, biking, walking, transit, micro-mobility, and other mobility services to move people and goods within the designated corridor and beyond. The corridor is a way of organizing the various facilities into a study area and its adjacent area of influence. A corridor Study Area may include multiple facilities such as local arterial roadways, state highways, rail lines, transit systems, and active transportation facilities.

A CMCP document plans for all modes of transportation by evaluating existing and future conditions, community priorities, and the potential benefit and cost of proposed mobility strategies that align with state, regional, and project-specific goals.

### What is expected from a CMCP?

A CMCP supports the continuous improvement of the transportation system through a meaningful and collaborative planning process and is intended to be referenced and updated regularly. CMCPs are expected to:


- **Reimagine the approach to mobility** by focusing on quality of life, accessibility, sustainability, access to jobs, housing, education, and health for all
- **Address today's mobility challenges** while building a foundation for the future
- **Develop a balanced implementation plan** for timely, phased (if necessary), integrated (with other parallel efforts), and effective results
- **Provide an integrated set of multimodal transportation improvements** that align with regional, state, and local objectives and inform future transportation plans
- **Enable regions to compete for state funding** under the Senate Bill 1 (SB 1), the Road Repair and Accountability Act (2017), and the Congested Corridors Program

As the implementation blueprint for multimodal mobility within a corridor, a CMCP helps to align community priorities and initiatives with state and regional goals to develop projects and services.

CMCPs are expected to be leveraged for applicable state and federal funds for projects. When funding is obtained, the CCT CMCP transportation projects and programs will be

added to the Regional Transportation Improvement Program (RTIP). The RTIP is a multi-billion-dollar, five-year program of major transportation projects funded by federal, state, and local governments. **Figure 1-2** shows how the CMCP process works in conjunction with state and regional planning efforts to make the recommended transportation projects a reality.

Figure 1-2 CMCP Development and Implementation Process

**Senate Bill 1 Provides Funds for California Transportation**

The Road and Repair Accountability Act of 2017, also known as Senate Bill (SB) 1<sup>1</sup>, provides a stable funding source for transportation in the state by providing multiple funding sources for transportation. This Act invests \$54 billion through 2027 to fix roads, freeways, and bridges in communities across California. In order for the San Diego region to be eligible to receive qualifying funds from SB 1, a CMCP must be developed and approved. A CMCP can also help access funds from other sources, such as federal dollars.

<sup>1</sup> The Road Repair and Accountability Act of 2017, California Transportation Commission, Accessed at <https://catc.ca.gov/programs/sb1>

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***A CMCP is a data-informed planning document created to reflect the values, goals, and objectives of the communities served by the corridor.***

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The following regional, state, and local initiatives guide the CMCP process:

- SANDAG 2021 Regional Plan
- California Transportation Plan 2050
- Climate Action Plan for Transportation Infrastructure
- Caltrans Corridor Planning Process Guide
- Caltrans Smart Mobility Framework
- Other local plans

These documents are described in the following sections.

## SANDAG 2021 Regional Plan

The 2021 Regional Plan is the vision for how the San Diego region will grow through 2050 and implement a fast, fair, and clean transportation system while building regional resiliency. The 2021 Regional Plan was adopted by the SANDAG Board of Directors in December 2021 and combines three required planning documents: Regional Transportation Plan (RTP), Sustainable Communities Strategy (SCS), and Regional Comprehensive Plan (RCP).

The plan defines projects, policies, and programs to address regional land use and transportation challenges while meeting the following regional goals and areas of emphasis:

- Efficiently move people and goods by providing competitive alternatives to driving
- Access to affordable, reliable, and safe mobility options for everyone
- Healthier air and reduced GHG emissions regionwide by supporting shorter trip-making through focused integration of transportation and land use

The 2021 Regional Plan incorporates five transformational strategies—“the 5 Big Moves”—into one *integrated* regional transportation system. **Figure 1-3** illustrates the moves and their associated descriptions.



Figure 1-3 SANDAG 5 Big Moves

### NEXT OS

The underlying technology that allows people to connect to transportation services and a digital platform that allows for dynamic management of roadways and transit services.

### COMPLETE CORRIDORS

Roadways that offer dedicated, safe space for everyone, including people who walk, bike, drive, ride transit, and use Flexible Fleets, as well as those who drive freight vehicles. Complete Corridors use technology to dynamically manage the flow of traffic.



### FLEXIBLE FLEETS

Transportation services of many forms, varying in size from bikes to scooters to shuttles, that offer first- and last-mile connections to transit and alternatives to driving alone.

### TRANSIT LEAP

A complete network of fast, convenient, and reliable transit services that connect people from where they live to where they want to go.

### MOBILITY HUBS

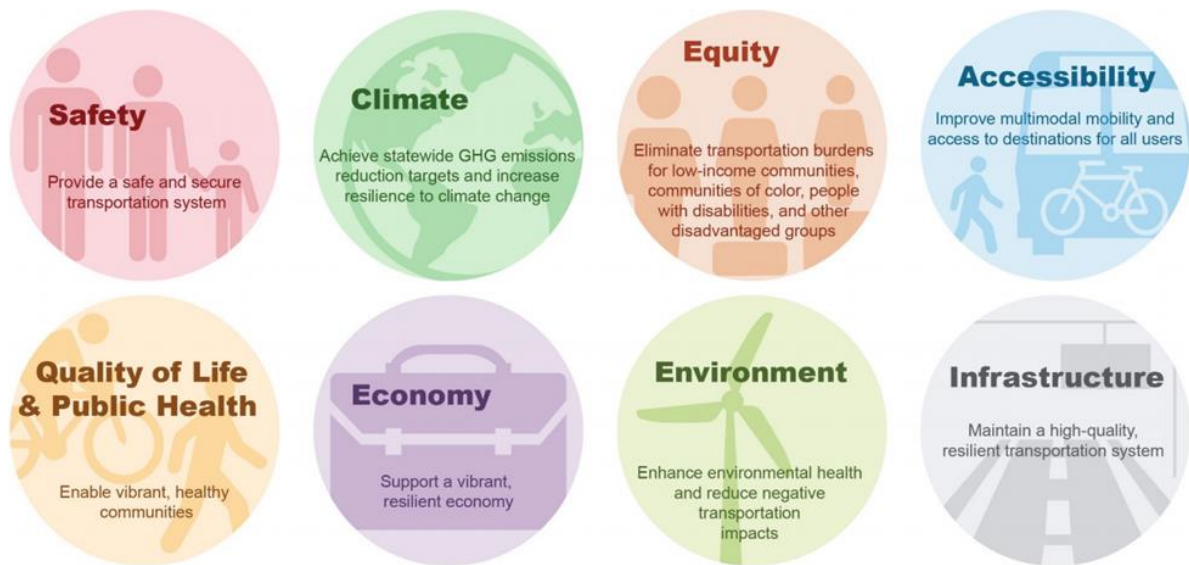
Vibrant centers of activity where transit and on-demand travel options, supported by safe streets, connect people with their destinations and businesses with their customers. Mobility Hubs are also planned to accommodate future growth and development.



## California Transportation Plan 2050

The California Transportation Plan (CTP) 2050 is a long-range transportation roadmap for achieving the state’s vision of a safe, resilient, and universally accessible transportation system that supports vibrant communities, advances racial and economic justice, and improves public and environmental health. The CTP 2050 provides a framework for making effective, transparent, and transformative transportation decisions in California. While no specific projects are included in the CTP 2050, it does provide **people-focused policies, strategies, and investments that close the gap between the goals in regional transportation plans and the state goals**, shown in **Figure 1-4**.

Figure 1-4 California Transportation Plan 2050 Goals



## Climate Action Plan for Transportation Infrastructure

In July 2021, the California State Transportation Agency (CalSTA) adopted its Climate Action Plan for Transportation Infrastructure (CAPTI) to prioritize transportation infrastructure investments that “...realize a truly low-carbon, sustainable, resilient, and economically competitive future for the state.” As part of the CAPTI investment framework and CTP 2050, the State of California is taking a “fix-it-first” approach using existing funding sources and prioritizing projects that align with CAPTI’s 10 Guiding Principles<sup>1</sup>. In addition to the Guiding

<sup>1</sup> [CAPTI: Climate Action Plan for Transportation Infrastructure](#)

Principles for funding, the following strategies and key actions are most applicable to the CCT CMCP:

- **Cultivate and Accelerate Sustainable Transportation Innovation by Leading with State Investments** – promote innovative sustainable transportation solutions in Solutions for Congested Corridor Program (SCCP) through multimodal corridor plans.
- **Elevate Community Voices in How We Plan and Fund Transportation Projects** – enhance and mainstream community engagement best practices.
- **Advance State Transportation Leadership on Climate and Equity through Improved Planning & Project Partnerships** – require corridor planning efforts to prioritize sustainable multimodal investments; support the development of innovative safety solutions based on the safe systems approach that advance sustainable transportation modes, particularly for rural communities.
- **Support Local and Regional Innovation to Advance Sustainable Mobility** – convene discussions regarding sustainable rural transportation solutions.

## Caltrans Corridor Planning Process Guide

The Caltrans Division of Transportation Planning published the Corridor Planning Process Guide in February 2020 to provide direction on the comprehensive analysis of transportation corridors to Caltrans and relevant partner agency staff. The Guide provides an eight-step corridor planning process:

1. Scope Effort
2. Gather Information
3. Conduct Baseline Performance Assessment
4. Identify Potential Projects and Strategies
5. Analyze Improvement Strategies
6. Select and Prioritize Solutions
7. Publish/Implement Corridor Plan
8. Monitor and Evaluate Progress

The eight-step corridor planning process is the foundation for the development of the CCT CMCP process, which is outlined in **CMCP Process** below.

## Caltrans Smart Mobility Framework

The Smart Mobility Framework (SMF) is guidance that emphasizes the integration of transportation and land use concepts to bring about smart growth transportation strategies across California. Principles outlined in the SMF are woven throughout the development of CCT CMCP – helping to guide the selection of solutions by emphasizing:

- **Location efficiency** – integrating land use and transportation to improve accessibility, maximizing non-motorized modes and transit, and reducing the number and length of trips.
- **Reliable mobility** – expanding multimodal options and operational strategies to better manage transportation network predictability.
- **Health and safety** – designing, operating, and managing a system to improve user safety, encourage active lifestyles, and lessen exposure to pollution.
- **Environmental stewardship** – reducing transportation greenhouse gas emissions while enhancing and protecting the State’s built and natural environments.
- **Social equity** – designing a transportation system that provides mobility for all users.
- **Robust economy** – supporting the economic health of the State and local governments, competitiveness of businesses, and the welfare of residents.

## Local Plans

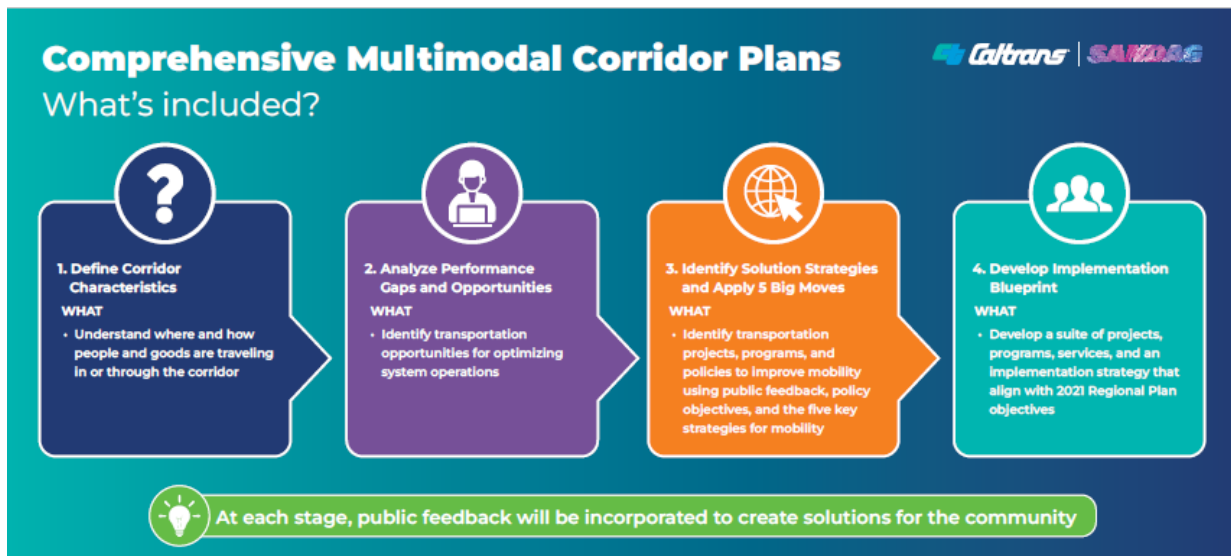
The CCT CMCP leverages the work that the San Vicente CMCP and the South Bay to Sorrento CMCP have completed—relying on local planning efforts to document local access needs into the sub-regional context of the CCT Corridor. A foundation of local understanding was built from the Literature Review (**Appendix A**), which included the studies and projects available at the time this plan was being developed.

Subsequently, the project team engaged the cities of El Cajon, San Diego, and Santee and the County of San Diego to ensure that the analysis, findings, and proposed projects and programs from the CMCP were compatible with existing and future local plans.

## CMCP PROCESS

The CMCP process aims to understand Corridor characteristics and identify needs through extensive public involvement to create equitable transportation solutions. The overall CMCP process is shown in **Figure 1-5** and the key steps are described in this section.

*Figure 1-5 CMCP Process Flowchart*



The literature review and Baseline Conditions Analysis provided key contextual information for the Corridor discussed in Chapter 2: Corridor Context. The results of the Baseline Conditions Analysis combined with feedback from the various outreach groups, described in Chapter 3: Engagement, are compiled to highlight the recurring key themes for the entire Corridor and inform the transportation solution strategies in Chapter 4: Transportation Solution Strategies. The transportation solution strategies are an unconstrained list that included every desirable project or service identified by the Baseline Conditions Analysis or suggested by partner agencies, community groups, or community members.

The transportation solution strategies are divided into short-term and long-term solutions based on an analysis of each transportation solution strategy using several factors related to implementation and is detailed in Chapter 5: Implementation.

## Chapter 2. Corridor Context

### Corridor Context

As an initial step in the planning process, the CCT Corridor was evaluated for existing and future population and employment, social equity focus communities, land use, and commute patterns, which resulted in key findings that influenced the development of the transportation solutions.

### CCT CORRIDOR

The CCT Corridor consists of the Study Area and Area of Influence, spanning approximately 125 square miles of the San Diego region. The corridor has a rich history and serves as the primary travel path for the corridor's users and communities, further described below.

#### Study Area

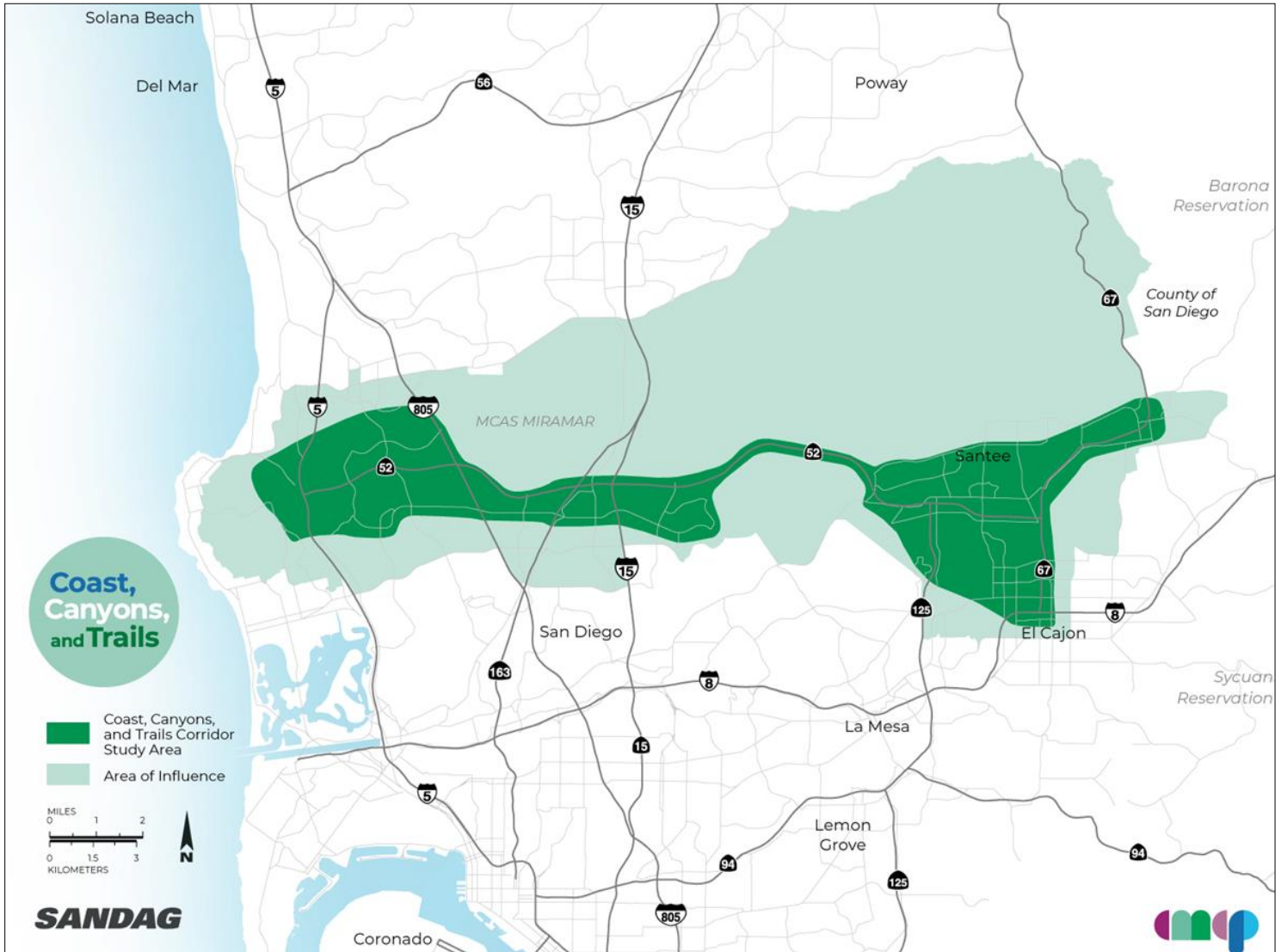
The CCT CMCP Study Area is centered around State Route 52 (SR 52), an east-west freeway located in the City of San Diego and East County areas of San Diego County. SR 52 is known as both the Soledad Freeway and the San Clemente Canyon Freeway. The Study Area includes the communities nearest SR 52, such as La Jolla, University City, Clairemont Mesa, Kearny Mesa, Tierrasanta, Santee, and El Cajon. The Study Area also includes areas surrounding State Route 67 (SR 67) between El Cajon and Lakeside.

#### Area of Influence


The CCT CMCP Area of Influence represents a boundary established by demographic and travel patterns developed from a larger, census tract-based area, which includes broader areas of La Jolla, University City (including the University of California, San Diego (UCSD) and Torrey Pines), Clairemont Mesa, Kearny Mesa, El Cajon, Santee, and Lakeside. The Area of Influence also includes the broader areas of Marine Corps Air Station (MCAS) Miramar, Marian Bear Memorial Park, Mission Trails Regional Park, Parkway Plaza and Winter Gardens. SR 52 provides vital access to these communities, employment centers, and regional destinations.

The Area of Influence will inform and benefit from the proposed projects in the Study Area. Transportation solutions proposed in this document are focused within the Study Area but may extend into the Area of Influence and beyond to complete network gaps or create a more comprehensive transportation system. The corridor overlaps with two CMCPs: the South Bay to Sorrento CMCP that runs north-south in the areas of University City, Clairemont Mesa, and Kearny Mesa, and the San Vicente CMCP on the eastern end of the corridor, which includes the Lakeside and Winter Gardens communities.

Figure 2-1 CCT CMCP Study Area and the Area of Influence







***Mission Trails Regional Park is a popular destination for hiking, mountain biking and home to sensitive habitat. The park encompasses 8,000 acres of both natural and developed recreational acres.***



## Corridor History

The first plans for a route between La Jolla and Santee date back to 1959, around the time when suburban development reached Clairemont Mesa and Santee. Construction of the SR 52 freeway began in 1966 at the I-5 interchange in the eastern end of the corridor and reached Interstate 805 (I-805) in 1970. The freeway portion of SR 67 between Lakeside and El Cajon also opened in 1970. The process of extending SR 52 proceeded in subsequent decades, reaching SR 125 in 1998 and its current terminus at SR 67 in 2011. During that time, suburban development has continued with the creation and expansion of residential communities in the University City, Tierrasanta, Santee, El Cajon, and Lakeside. Alongside SR 52, Kearny Mesa has developed into a regionally important employment center.

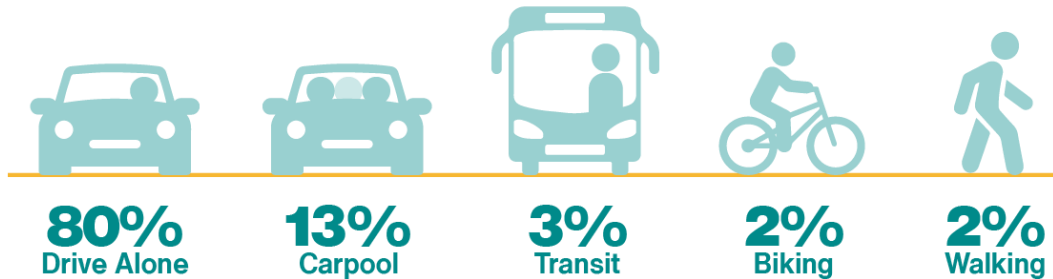
Since its original construction, SR 52 has been widened to six lanes between Santo Road and Mast Boulevard in 2007. In 2016, the State Route 52 Corridor Study was prepared for the City of Santee to identify and evaluate short-term and low-cost improvements between I-805 and SR 67 to improve safety, efficiency, reliability, and accessibility while reducing congestion and providing operational flexibility.

## Corridor Users

The primary users of the corridor are residents in the eastern communities of Santee, El Cajon, and Lakeside commuting to major employment centers including Kearny Mesa, University City, UCSD and Sorrento Mesa in the west. The corridor also links La Jolla, Pacific Beach, and other coastal communities with East County and other eastern communities. The corridor links residents and businesses in these communities with the highway and interstate systems. The corridor also facilitates short trips, especially between Clairemont Mesa and Kearny Mesa, within the corridor, traveling within their community and to adjacent communities for shopping, school, services, and other trips. Corridor users include people making recreational trips to beaches and parks, especially during the summer months. Users also include residents from East County communities outside the Study Area.

Within the Study Area, the existing commuter mode share is 80% drive alone, 13% carpool, 3% transit, 2% biking, and 2% walking, according to the SANDAG Activity Based Model 2+ (ABM2+). Without any changes in transportation infrastructure, these mode shares remain the same through the year 2050.

**Figure 2-2** Existing Commuter Share by Mode



Source: SANDAG ABM2+

## The Communities of the Corridor

The CCT Corridor includes communities with diverse land uses and ecosystems that link the communities of La Jolla, University City, Clairemont Mesa, Kearny Mesa, Tierrasanta, Santee, El Cajon, and Lakeside through the San Clemente Canyon. Brief descriptions of each community’s land use and characteristics are described below.

### University City/Sorrento Valley

Land use in University City and Sorrento Valley includes office, commercial, industrial, and parks/open space, among others and is the region’s largest employment center. Much of the office and residential land uses in both areas are medium-to-high density. The Westfield University Town Centre (UTC) shopping mall is one of the largest in the region. UCSD, a major university, is also located within the University City area. Even though land use diversity is considerable, natural and man-made features, including significant changes in topography and wide roadways, have made Sorrento Valley an historically auto-centric area. With the new Mid-Coast Trolley Extension, University City has recently become a hub for transit as well.

University Town Centre  
Source: SANDAG



## Clairemont Mesa

Clairemont Mesa is a primarily residential area with shopping areas, commercial areas, and growing employment centers. The residential areas are mostly single-family homes, with some outlying mobile homes and multi-family homes. Clairemont Mesa has a mid-to-high existing population density that increases further south, away from SR 52. There are three shopping centers with retail stores and entertainment throughout Clairemont Mesa, all located near residential areas. There are a few commercial and light industrial uses, with most on the borders of Clairemont Mesa near freeways and some near the shopping centers. Planned in the mid-20th century to be the residential compliment to the Kearny Mesa employment center, Clairemont Mesa has relatively low employment density. A disconnected suburban street network interrupted by canyons and cul-de-sacs makes many areas of Clairemont Mesa auto-centric. East-west and north-south bus transit is available on Clairemont Mesa Boulevard and Genesee Avenue, respectively.

*Clairemont Mesa Commercial Development*  
Source: Google StreetView



## Kearny Mesa

Kearny Mesa includes diverse industrial, commercial, and residential land uses. Planned in the mid-20th century as a regional employment center, Kearny Mesa now has many dense, mixed-use land uses. Along with Sorrento Valley, Kearny Mesa includes one of the highest concentrations of employment within the Study Area. However, the employment is dispersed throughout the area with few areas of high-density development. Residential land uses include both single-family and multi-family residential and are primarily located south of Aero Drive within Kearny Mesa and west of I-805 within Clairemont Mesa. The recent Kearny Mesa Community Plan Update allows for substantial increases in residential densities and Floor Area Ratio (FAR). Kearny Mesa also includes Montgomery Field, one of the region’s executive airports. Even though land use diversity is considerable within this area and several local and express bus transit routes serve Kearny Mesa Transit Center, relatively low densities, wide roadways, and lack of direct pedestrian pathways make Kearny Mesa mostly auto-centric.

*Kearny Mesa Commercial Development*  
Source: SANDAG



## Santee

Santee has a mix of land uses including residential, institutional, commercial, and recreational areas. The residential areas consist of mostly single-family homes located in the center of Santee with some multi-family and mobile homes. Santee is also the terminus of the Green Line Trolley and has several local bus connections within the city. Santee has a relatively high population density for the corridor.

Santee has a range of low to moderate employment densities. The Santee Town Center is located near employment centers and is surrounded by commercial and recreational uses such as Mast Park. In the northern and center parts of Santee, where land is mostly residential, there is a low employment density. Near the southern border of Santee, close to SR 52 and SR 67, there are multiple shopping centers, manufacturers, and mobile home communities. In this area, there is a higher level of employment density.

*Santee Town Center*  
Source: McParlane & Associates



## El Cajon

El Cajon is the one of the most urban and diverse areas within the CCT Corridor with a relatively well-connected street network. El Cajon has a high population density and employment density compared to other areas of the corridor. El Cajon has access to the Green and Orange Line Trolley lines and many local bus routes that connect at El Cajon Transit Center.

The residential areas of El Cajon largely consist of multi-family homes and mobile homes with some single-family homes, most of which are on the eastern and western extents of the city. The commercial and office areas are concentrated along major streets of El Cajon such as Main St., 2nd St., and Broadway. Near Gillespie Field Airport, there are multiple light and heavy industrial areas stretching south to Fletcher Parkway, with single-family residential areas west of the airport and a mix of multi-family and single-family homes to the east. There are several shopping centers in El Cajon, mostly near Interstate 8 (I-8) and SR 67, with additional shops located along El Cajon Boulevard. El Cajon is expected to experience job growth by 2050.

*Main Street El Cajon*  
Source: Google StreetView



## Lakeside



Lakeside consists of residential, industrial, institutional, and recreational areas. The residential area of Lakeside is made up single-family homes, some of which are on large lots, and mobile homes. Recreationally, Lakeside has different forms of greenery ranging from Lindo Lake and Lake Jennings to the Lakeside Linkage Preserve. There are commercial and office spaces along I-8, including light industrial manufacturing companies. Lakeside has a moderate level of employment and population density. Lakeside's main transportation links are the SR 67 freeway and Route 848 local bus to El Cajon.

Lakeside Main Street  
Source: SANDAG



## POPULATION, EMPLOYMENT, AND SOCIAL EQUITY FOCUS COMMUNITIES

This section describes the characteristics of the population living within the CCT Study Area, including population density, employment centers, and social equity focus communities. Identifying where people live and work is critical for providing mobility improvements that serve the community.

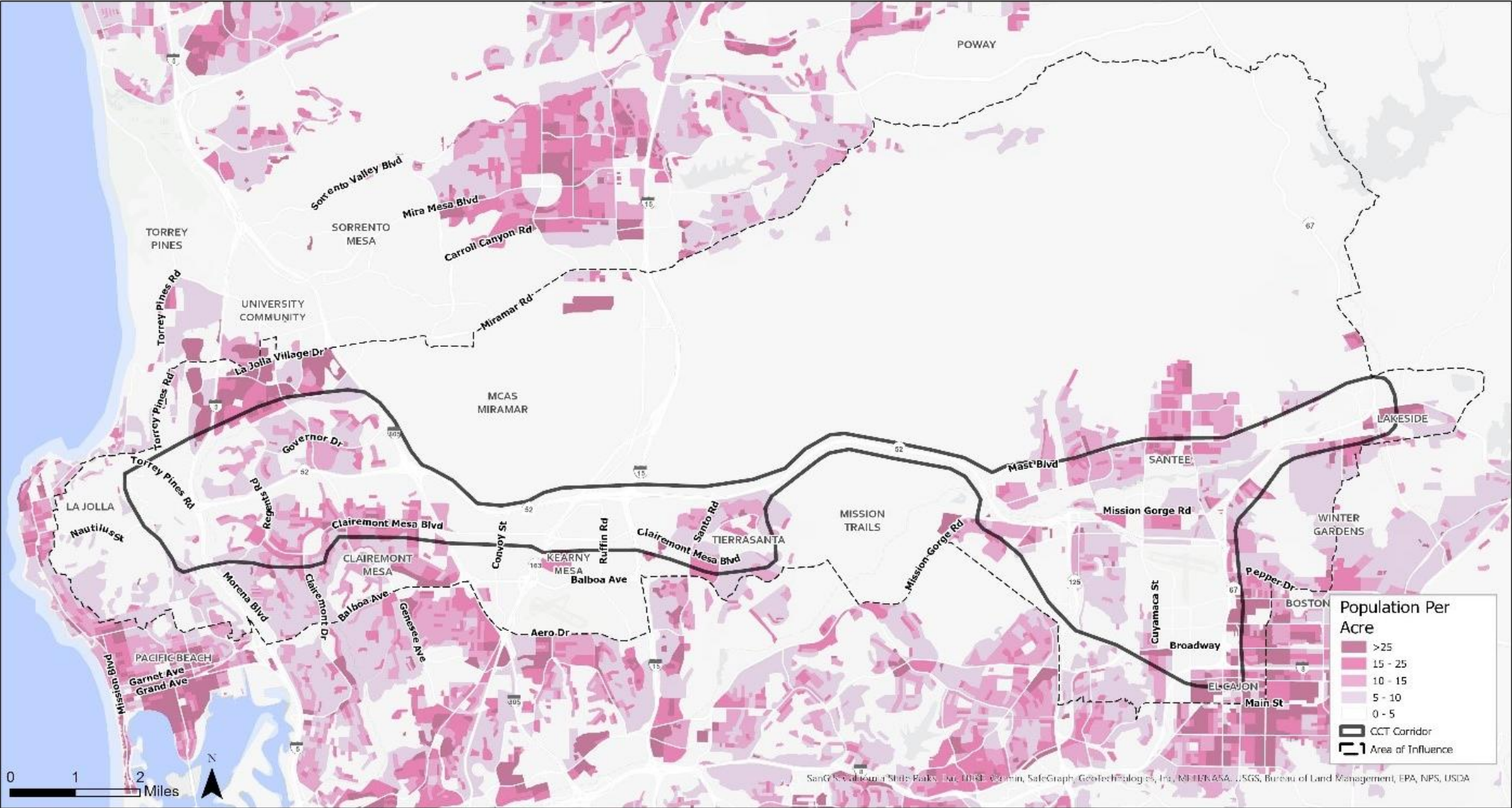
There are several social equity focus communities in the corridor, including El Cajon, Clairemont, Santee, University City, and Lakeside. Disadvantaged populations are most concentrated in El Cajon. Accounting for these demographic factors, there are multiple areas of high transit propensity throughout the corridor and solutions are needed to serve populations with limited mobility. Some social equity focus populations live farther from transit which emphasizes the need for first-last mile solutions.

## Population Density

The population in the Study Area is projected to increase by 16% by the year 2050, according to the SANDAG ABM2+. The CCT CMCP Study Area reflects a variety of land uses within several different communities, such as residential, commercial and office, recreational, transportation, and military. The area of Clairemont Mesa, southern area of University City, Tierrasanta, and the northern area of Santee are predominantly residential, characterized by single-family homes. Mixed-use areas include the southern area of Santee and the northern portions of El Cajon.

Large portions of the Study Area contain, or are adjacent to parks, military bases, and commercial and industrial uses resulting in limited population density within the Study Area overall. Greater population density exists outside the Study Area but within the Area of Influence, notably in University City and El Cajon. The patterns of population and employment density cause traffic congestion that is concentrated in the mornings and evenings. The limited population density within segments of the corridor suggests that transit demand may be moderate.

Figure 2-3 CCT Population Density





## Employment Centers

The number of jobs in the Study Area is projected to increase by 19% by the year 2050, according to the SANDAG ABM2+. SANDAG conducted an analysis to understand where employment centers are in the region, including what industries are present, where the employees in these areas live, and how they commute<sup>2</sup>.

**Table 2-1** Job Concentrations and Commute Distances by Employment Center Type

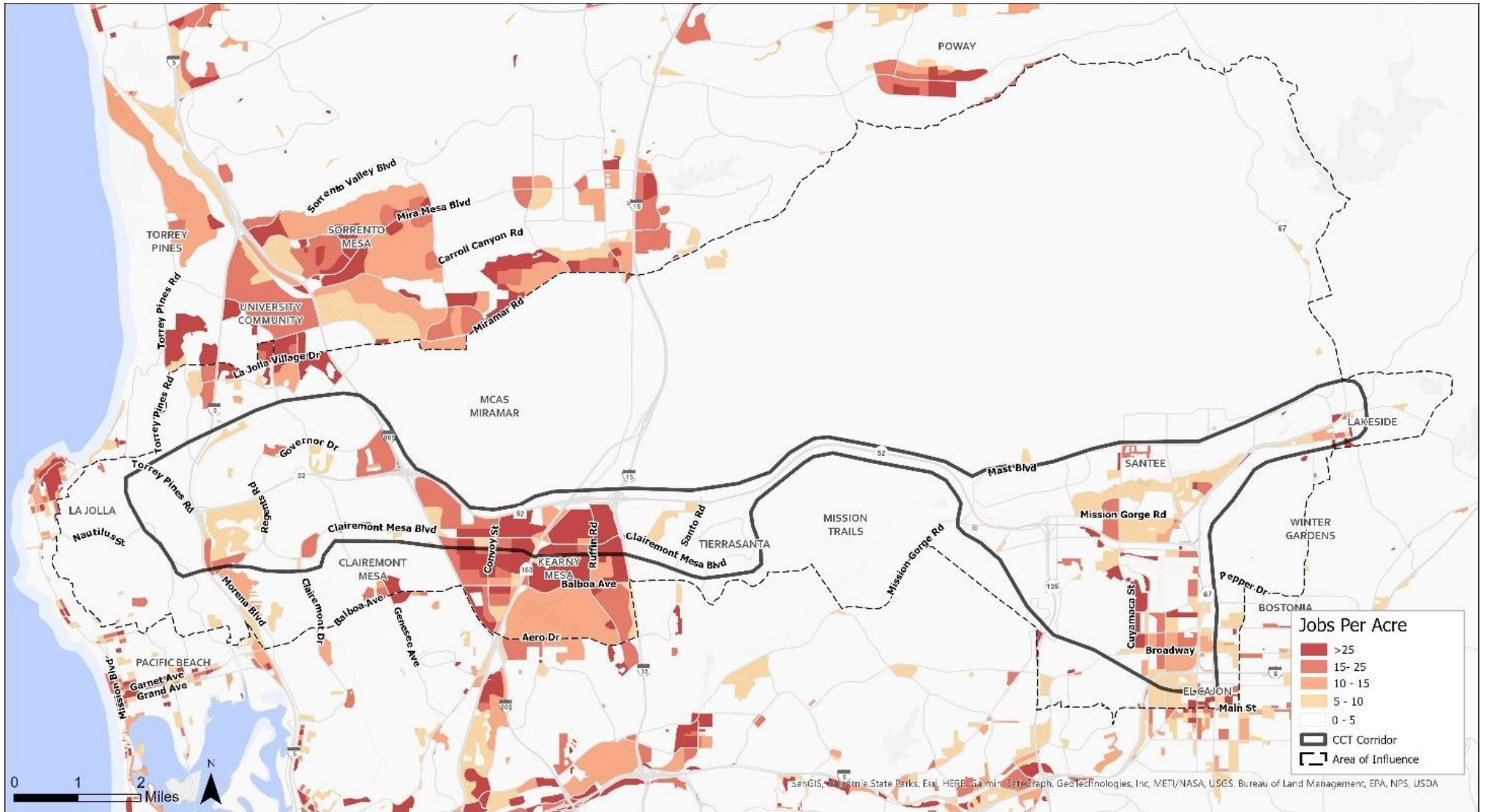
Employment Center Type	Job Concentration	Commute Distance
Tier 1 – Kearny Mesa, Sorrento Valley	Professional scientific and technical industries	12.1 miles
Tier 2 – El Cajon	Health Care	10 miles
Tier 3 – Northwest El Cajon	Construction, manufacturing	11.3 miles
Tier 4 – Winter Gardens, Lakeside, South Santee, University City, and along I-5 south of SR 52	Retail and food services	10.5 miles

Source: SANDAG ABM 2+

<sup>2</sup> SANDAG classifies Employment Centers in the following tiers: Tier 1: 75,000+ employees, Tier 2: 25,000 – 75,000 employees, Tier 3: 15,000 – 25,000 employees, and Tier 4: 2,500 – 15,000 employees



Figure 2-5 CCT Existing Employment Density



## Low-Income Communities

Consistent with the 2021 Regional Plan, low-income communities are defined as Census block groups meeting one or more of the following conditions:

- At or below 80% of the statewide median income
- Have an income less than 200% of the Federal Poverty Level (FPL)

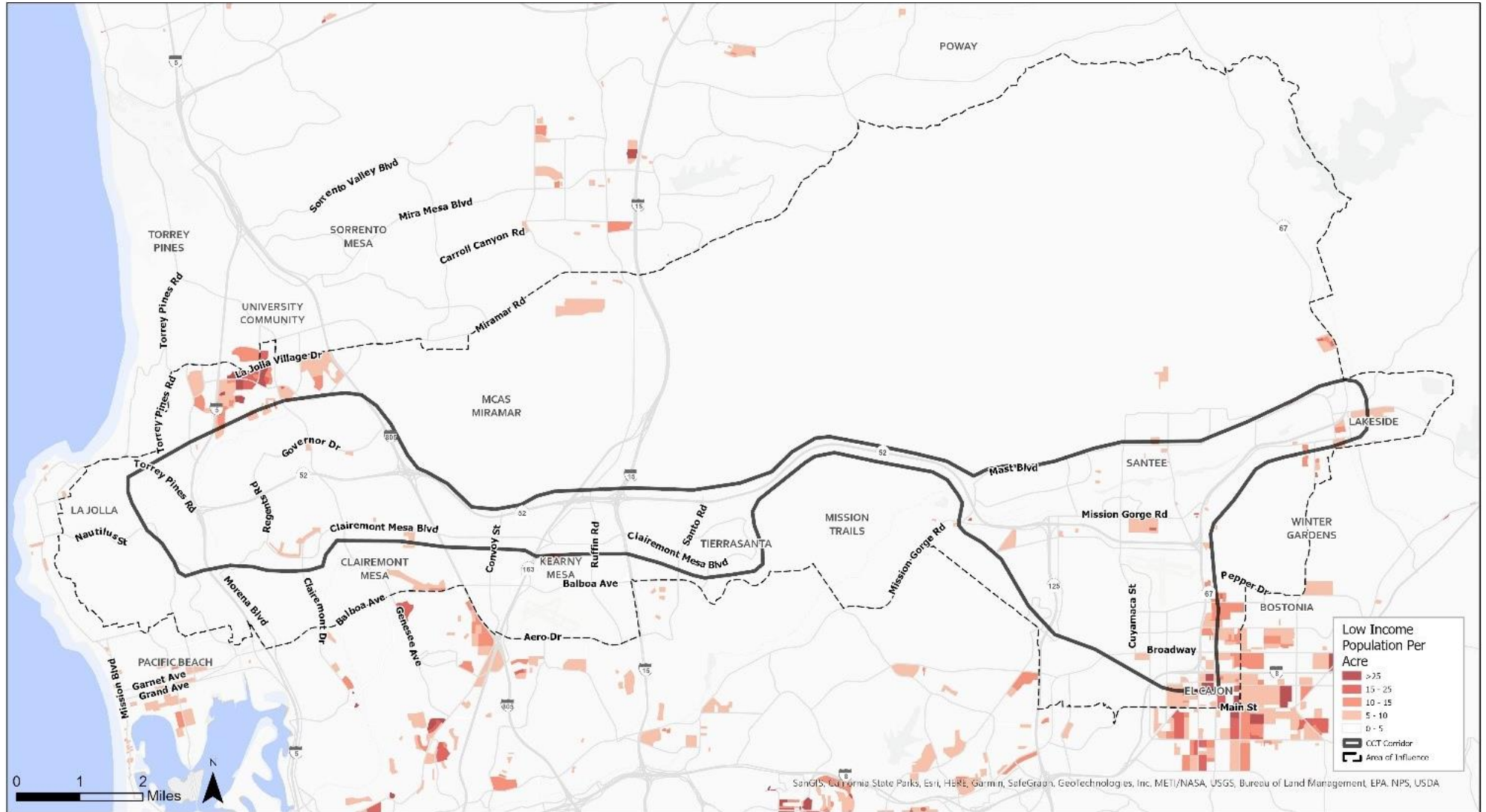
The largest concentration of low-income communities within the Study Area is in El Cajon where approximately half of the population is classified as low-income. There are low-income communities within Santee and Lakeside, with some areas having more than 30% of the population meeting low-income community characteristics. Some areas of Clairemont Mesa and University City have more than 20% of the population meeting low-income community characteristics. In general, within the Study Area, low-income people living at the eastern end are commuting west to higher-income areas.

Within the Area of Influence, MCAS and UCSD have low-income concentrations. There are additional low-income communities in El Cajon within the Area of Influence, including areas where more than 60% of the population is low-income.

Access to affordable transportation, especially transit, is essential for low-income populations. Many low-income people also may not have a bank account, making it essential to make accommodations for them to access transit fares and passes, freeway tolling, and other electronic payment systems.



Figure 2-6 CCT Low-Income Population



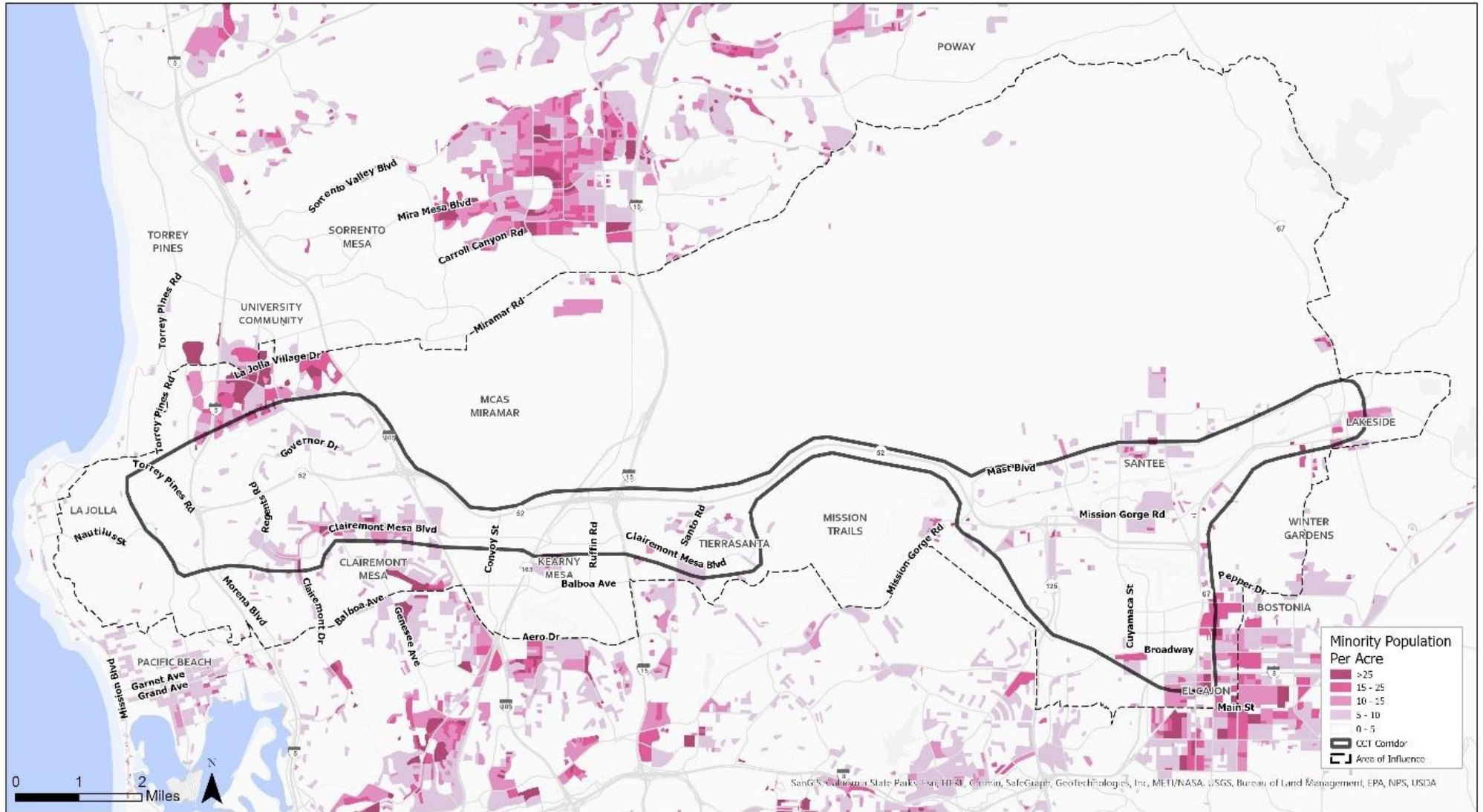
## Minority Communities

Consistent with the 2021 Regional Plan, minority populations are defined as people who self-identify with racial and ethnic minority groups, including non-white Hispanic and Latino, African American, Asian and Pacific Islander.

Minority populations are distributed more broadly across the Study Area. However, the greatest concentrations of minorities coincide with the low-income concentrations in El Cajon, where more than 60% of people identify with minority groups in some areas. More than 50% of people identify with minority groups in Kearny Mesa and University City, and in portions of Clairemont Mesa and Tierrasanta.

Many of the corridor's minority populations live in areas directly abutting the SR 52, SR 67, or other freeways. Others live near major arterials such as Clairemont Mesa Boulevard. Expansions of these roadways would have the greatest impact on the corridor's minority populations. The transportation strategies and plans strive to benefit these and other social equity focus populations and avoid disproportionate impacts to these communities.

Figure 2-7 CCT Minority Population Density



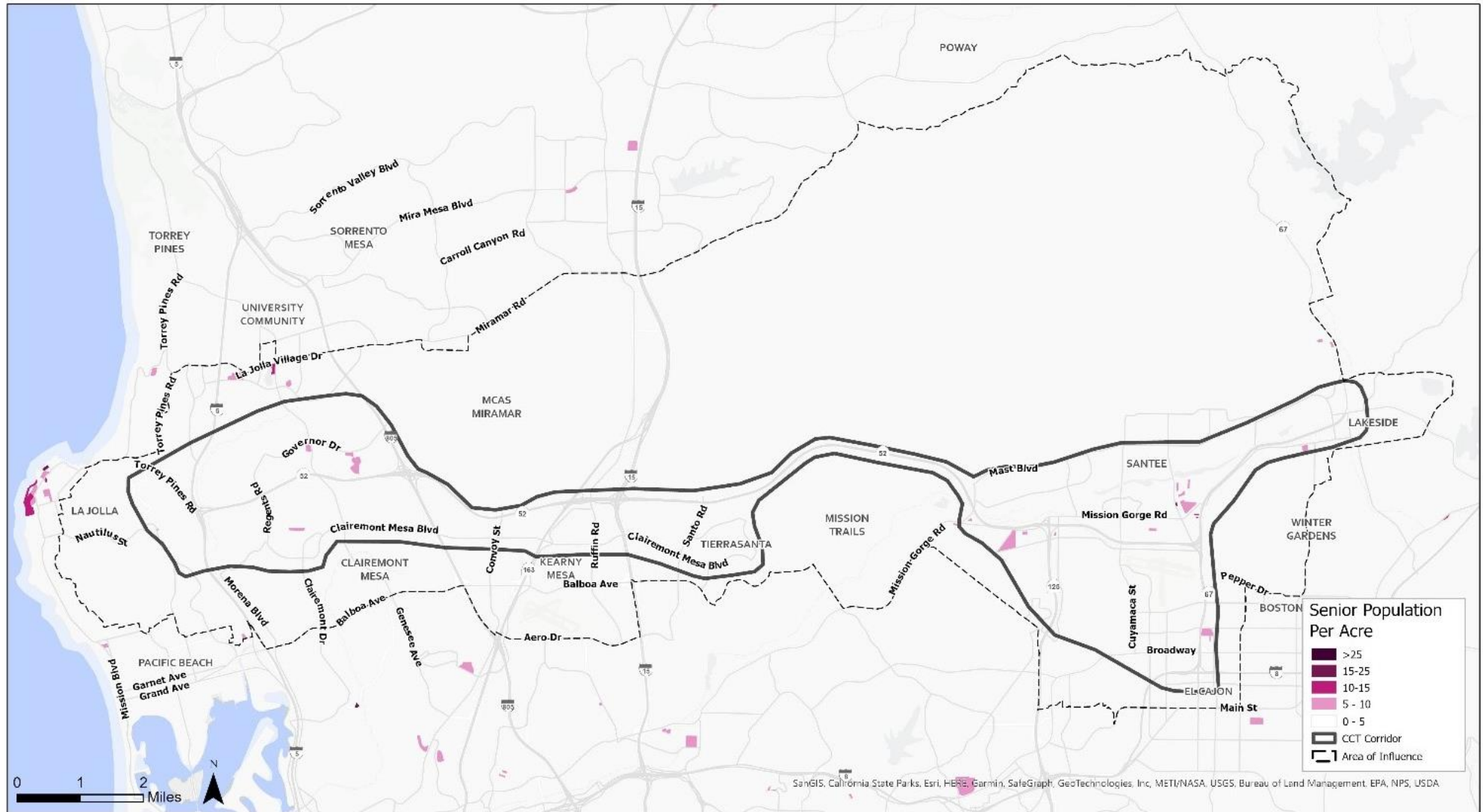


## Senior Communities

Consistent with the 2021 Regional Plan, the senior population is identified as people aged 65 or older. The distribution of seniors in the Study Area is very different from that of the low-income and minority population. The greatest concentrations of seniors are in the west end of the Study Area, such as the La Jolla and University City communities where there are areas of where the population density of people aged 65 or older ranges from 5-25 people per acre. There are also concentrations of seniors in Tierrasanta and portions of Clairemont Mesa, Santee, and El Cajon.

The transportation needs of senior populations are different from adults of working age, with seniors more likely to travel during off-peak periods and less likely to use Flexible Fleet technologies that require phone apps. The CCT CMCP considered the unique needs of seniors in developing the transportation solutions for the corridor.

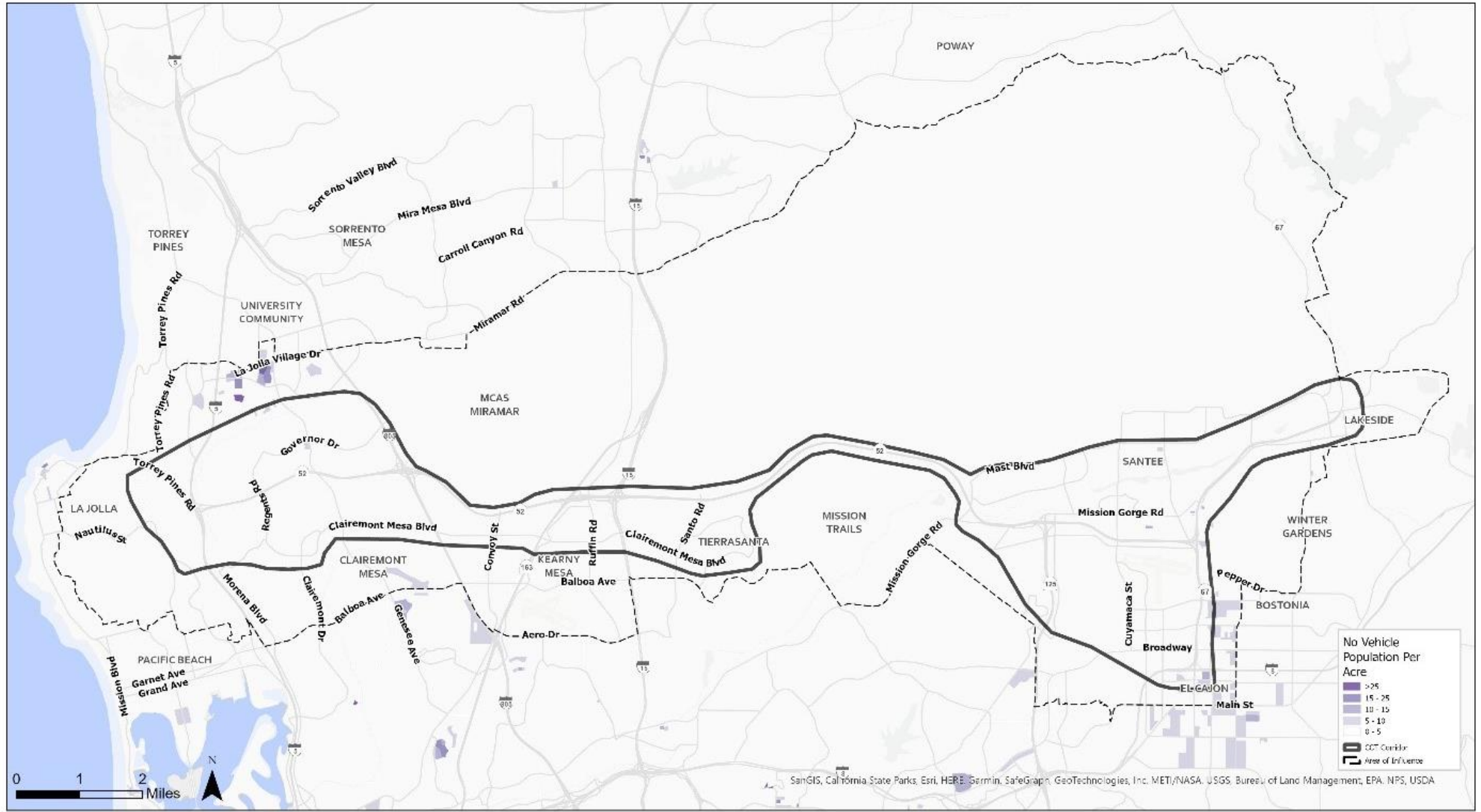
Figure 2-8 CCT Senior Population Density



## Zero Vehicle Households

Consistent with the 2021 Regional Plan, zero vehicle households include people without reliable access to a personal vehicle, seniors, or people who are limited in their ability to operate a personal vehicle, as defined by the US Census's American Community Survey. There is not a significantly high density of zero vehicle populations within the CCT corridor or Area of Influence. However, it is important to note where these populations are highest, as they must rely on alternative modes of transportation including transit and paratransit services. Zero vehicle populations are highest (between 5-10 people per acre) along the eastern edge of the CCT corridor near Bostonia and south of La Jolla Village Drive in University City. Zero vehicle populations are also present near the intersection of Genesee Avenue and Balboa Avenue in Clairemont Mesa and along I-805 in Kearny Mesa.

Figure 2-9 CCT Zero Vehicle Population Density



SanGIS, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc., METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA

## Transit Propensity

To expand upon the mobility hubs identified in the 2021 Regional Plan, a transit propensity index (TPI) score was calculated using US Census demographic data. The TPI score helps identify areas most suitable for transit.

A high TPI score (over 75) indicates that an area has a high suitability for transit. In contrast, a low TPI score (under 15) indicates areas that are not well-suited for transit. A high TPI score also indicates opportunities for improved first-last mile connections to further increase accessibility to transit. Existing and proposed transit connections were also considered when identifying proposed mobility hub locations. Areas with the highest TPI score in the CCT Corridor and Area of Influence include El Cajon, Kearny Mesa, UTC, and UCSD.

The TPI score uses the following demographic data:

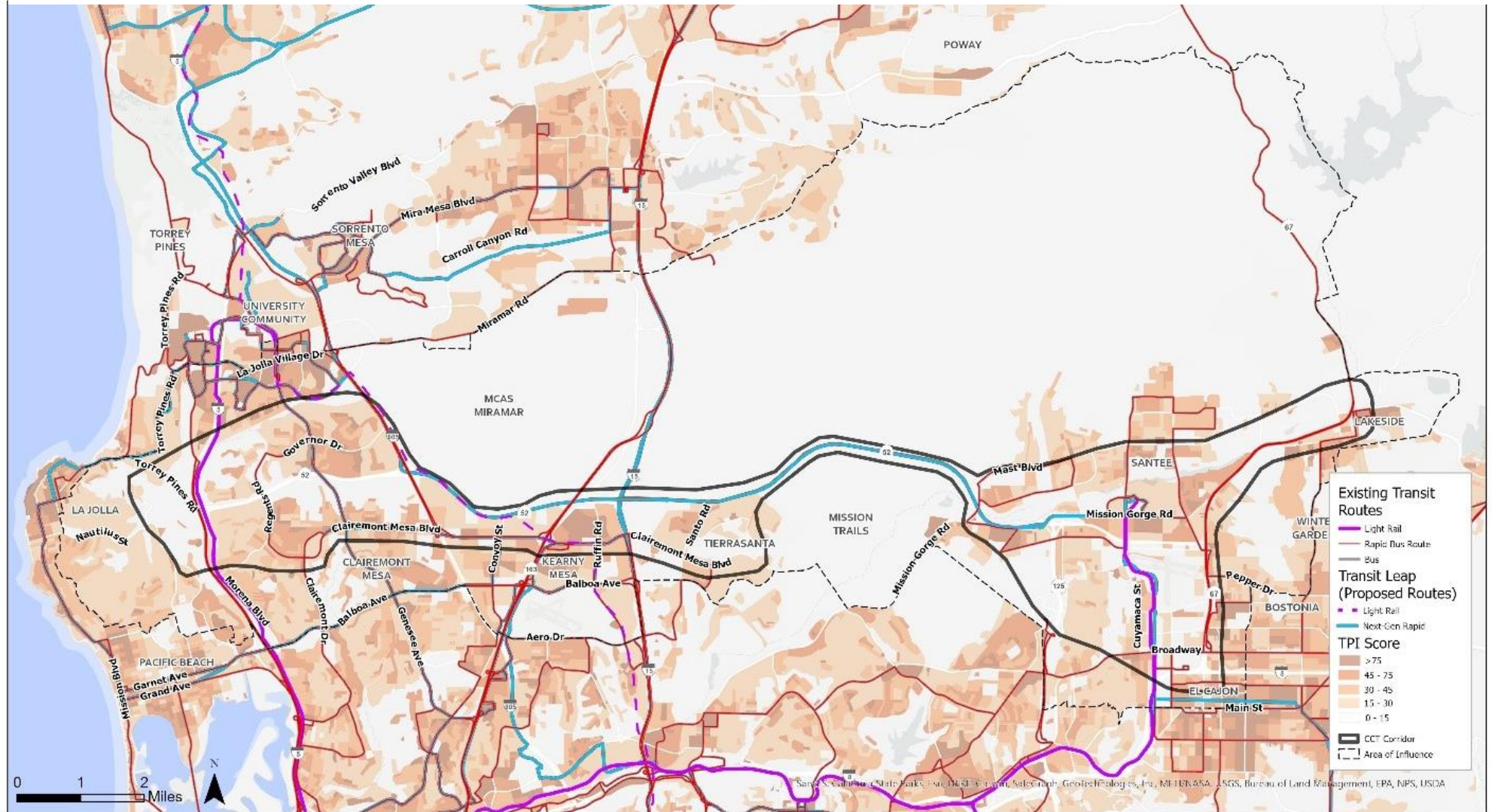
- Population density
- Employment (jobs) density
- Low-income population density
- Minority population density
- Senior population density
- Zero vehicle population density

Through analysis of population, employment, and land use maps, four key transit propensity zones were identified—University City, Kearny Mesa, El Cajon, and Santee. University City is a dense university suburban zone, Kearny Mesa is a commercial and industrial suburban zone, El Cajon, south of Interstate 8, is a dense suburban zone with concentrations of low-income and minority populations, and Santee is a mixed-income suburban zone. Due to the distinct characteristics of each zone, regional transit needs to be compatible in different contexts. Additionally, first-last mile solutions should be tailored to match the needs of each community.

Research of transit travel times, data input, and transit system maps reflect that transit travel times and connectivity are an issue for residents of the project corridor. Transit is available between adjacent communities, but there is no transit spanning the length of the corridor. Transit trip times are especially long between social equity focused communities in El Cajon and employment centers in Kearny Mesa, University City and Sorrento Valley. To meet demand, faster and more direct transit options are necessary. New transit also must meet the needs of lower income and minority communities and connect to employment centers.



Figure 2-10 CCT Transit Propensity



## COMMUTE PATTERNS AND TRIP GENERATORS

This section discusses the multimodal transportation network within the Study Area. Connections discussed in this section include transit, active transportation, and traffic flows. These existing and future conditions have been analyzed to identify gaps and potential opportunities for improvement throughout the multimodal transportation network within the Study Area.

### Key Destinations

The corridor has several major travel destinations that generate or attract a large number of trips, including three of the region's largest employment centers. Kearny Mesa, a Tier 1 employment center, has tens of thousands of jobs and is in the process of redeveloping with a greater mix of uses and higher densities. University City is another Tier 1 employment center with regional destinations that include the Westfield UTC mall. With the new Mid-Coast Trolley Extension, University City is a hub for both the regional freeway and transit networks. UCSD is a major public research university with tens of thousands of students and staff, located at the western edge of the corridor's Area of Influence. Sorrento Valley Employment Center is a Tier 1 employment center at the northwestern edge of the corridor's Area of Influence, linked to the corridor via the I-805 freeway.

In addition to the Tier 1 employment centers, the corridor has additional key destinations including, but not limited to Clairemont Town Square, Cuyamaca Business Park, Santee Trolley Square and Parkway Plaza. Clairemont Town Square is the traditional town center of the Clairemont community, and it remains a key destination for local shopping and services. Santee has the Santee Trolley Square, a retail center integrated with the terminus of the Trolley Green Line. At the eastern end of the corridor is the Cuyamaca Business Park, a Tier 3 employment center in El Cajon with access to both the SR 52 and SR 67 freeways. Also located in El Cajon is the Parkway Plaza, which is a shopping mall with over 150 stores.

The corridor also has a number of recreational attractors including Marian Bear Memorial Park and Mission Trails Regional Park. These popular recreational destinations and others provide residents and visitors access to thousands of acres of natural parks. They also serve as important habitat for wildlife.

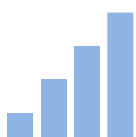


Figure 2-11 CCT Journey to Work Travel Flows



## Traffic Flows & Vehicle Miles Traveled (VMT)

The corridor’s primary transportation routes are the SR 52 and SR 67 freeways that connect the corridor to the broader transportation network. Congestion on roads in the Study Area is expected to increase 26.8% by 2050. This could be a result of increased vehicle dependence, growth of the population outside the Study Area, increased use of the Corridor for commuting or recreation, or a combination of all three. Forecasted by the SANDAG ABM2+, the daily vehicle miles traveled (VMT) throughout the Corridor is anticipated to grow by 1.68 million miles if transportation infrastructure remains the same.

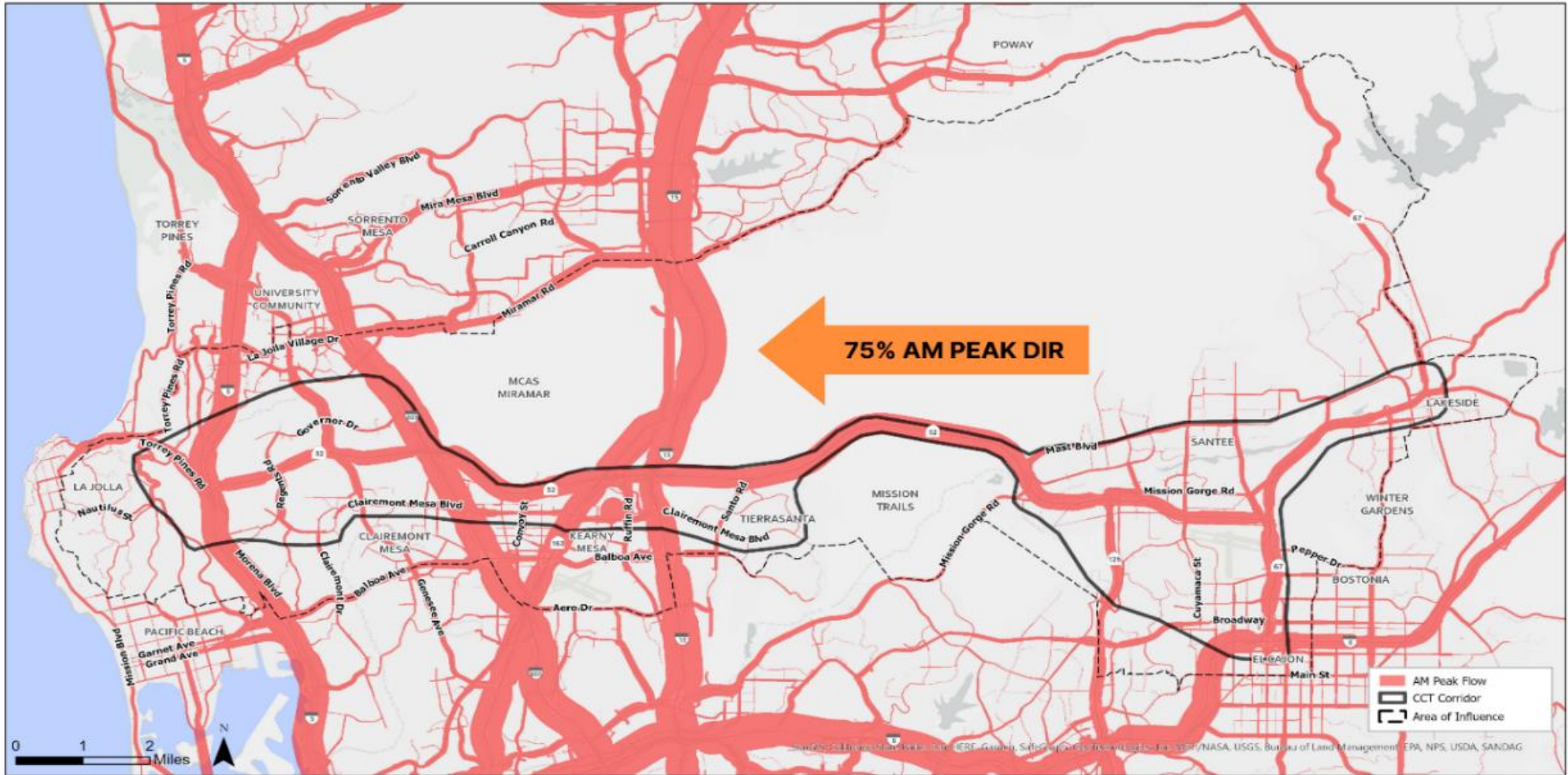


**Vehicle miles traveled are expected to increase 1.68 million miles by 2050 if transportation infrastructure remains the same.**

Travel in the corridor is highly directional, with 65% to 75% of trips occurring in the peak direction, which is westbound in the morning peak period and eastbound in the evening peak period. The peak period volumes are distinctly higher than other periods of the day, indicating that most trips are work-related because they occur for short periods rather than throughout the day. Given this travel pattern, the CCT Corridor could benefit from reversible managed lanes and peak-period express transit that takes advantage of the increased capacity that managed lanes offer. The heavy flows to and from Kearny Mesa, in particular, suggest a market for express transit service from Santee and El Cajon.



Figure 2-12 CCT AM Peak Period Traffic Flow





## Transit

The Green Line of the San Diego Light Rail System, known as the Trolley, connects from Santee Town Center to Downtown San Diego via El Cajon, La Mesa, San Diego State University, Mission Valley and Old Town. Numerous local bus routes serve the various areas of the Study Area. However, the corridor lacks direct transit options connecting populations in the east to key employment centers in the west and it takes approximately 1.5 hours to travel from Santee Town Center to UCSD via transit, which is not a competitive travel time compared to driving.

## Active Transportation

According to the SANDAG ABM2+, within the CCT Study Area, pedestrian and bicycle trips comprise only 12.5% and 1% of short trips (3 miles or less in length), respectively. Currently, some trails and bicycle facilities exist in the corridor, but most trips by walking or biking involve traveling on or crossing wide, high-speed arterial roadways. These levels of demand could be increased by providing high-quality and convenient active transportation infrastructure that prioritizes shortest-path routes for people walking, biking, or using other micromobility options.

## Goods Movement

Efficient transportation systems provide economic and social opportunities and benefits that result in positive multiplier effects, such as better accessibility to business markets, employment, and additional investments. SR 52 is connected to the Port of San Diego, air cargo terminals and land ports of entry via I-5 and I-805 as well as the Burlington Northern and Santa Fe (BNSF) railroad to the west, and the San Diego and Imperial Valley (SDIY) railroad to the east. The majority of the region's goods are moved along the highway system, which increases congestion and creates bottlenecks along many regional corridors, including SR 52. Notably, the corridor contains two landfills that attract large volumes of trucks. According to the SANDAG ABM2+, congested travel times for freight trips in the corridor are projected to more than double by 2050. Freight trucking also subjects truck route-adjacent communities to diesel particulates and other air pollution.

## Technology

Expanding digital infrastructure throughout this Corridor will enable the deployment of several transportation technology solutions and support evacuation management. Examples of technology solutions include signal-vehicle communications infrastructure, advanced evacuation communication equipment, electric vehicle charging stations, and coordinated microgrids and battery backup systems to maintain power to the corridor.

To comply with the Governor's world-leading plan to achieve 100 percent zero-emission vehicles by 2035 and the California Air Resources Board's (CARB) Innovative Clean Transit regulation, consideration for EV charging will prepare the corridor for the inevitable

widespread transition to electric vehicles. EV charging is a critical element in creating a complete corridor, which accommodates several modes of transportation, including Battery Electric cars, freight, and transit vehicles.

Currently, 66% of rural communities in San Diego County have access to fixed broadband<sup>3</sup>. A fiber communications project effort on SR 67 includes micro-trenching to create fiber conduit and the California Transportation Commission (CTC) has approved the installation of fiber for the Corridor to increase access to broadband in the region. This is in accordance with the Caltrans policy on broadband, which creates the opportunity for wired broadband to be installed on state right-of-way when there is a benefit to the public.

## Resiliency

The intersection of natural and built areas and the presence of steep slopes and waterways pose the environmental risks of wildfires, flooding, and landslides. The corridor is especially vulnerable to wildfires and has experienced two major events in the past 20 years: the Cedar Fire in 2003 and the Witch Creek Fire in 2007, the latter of which caused the evacuation of more than 500,000 people from east county communities through the CCT Corridor. Due to the extreme traffic congestion and lengthy evacuation times experienced during these events, evacuation operation improvements have become a major priority for this CMCP.

According to the US Environmental Protection Agency, wildfire exposure in the corridor is greatest between Mast Boulevard and I-15. The threat of wildfires and other climate-related threats such as storm surges, coastal erosion, sea level rise, landslides, flooding, severe storms and weather, and extreme heat will continue to increase due to climate change. Resilience strategies, such as evacuation routes and power redundancy during emergencies, should be incorporated into related projects, programs, and strategies to address these challenges.

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<sup>3</sup> [https://www.sandag.org/uploads/projectid/projectid\\_614\\_31273.pdf](https://www.sandag.org/uploads/projectid/projectid_614_31273.pdf)

## Safety

Relative to other corridors in the region, the SR 52 corridor has fewer collisions. However, pedestrian and bicycle collisions are concentrated on arterials, where conflicts with vehicles occur. The densest concentrations of pedestrian and bicycle collisions are near key activity centers on Clairemont Mesa Boulevard between Clairemont Drive and I-805, on Broadway between Marshall Avenue and Ballantyne Street, and on Johnson Avenue between Main Street and Vernon Way. Improvements to bicycle and pedestrian infrastructure, especially around potential mobility hubs are required to encourage walking or bicycling for short trips.

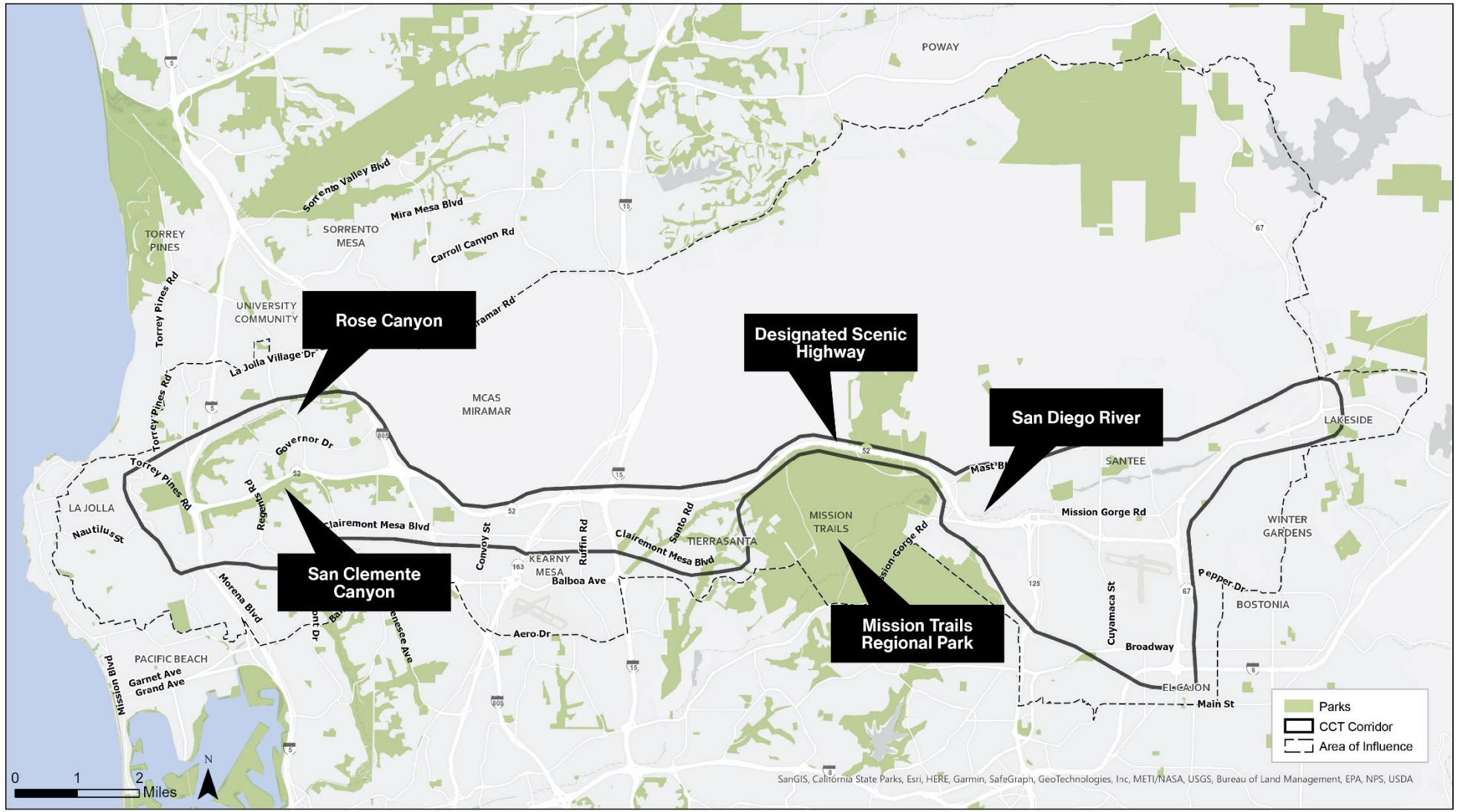
## RECREATIONAL AND PROTECTED LANDS

In addition to the communities described above, the corridor includes several recreational destinations and protected areas. From west to east, these include the following:

- Rose Canyon Open Space Park
- San Clemente Park
- Miramar Mounds National Natural Landmark
- SR 52 Scenic Highway (Santo Road to Mast Boulevard)
- Marian Bear Memorial Park
- Mission Trails Regional Park
- Santee Lakes Recreation Preserve
- San Diego River
- Padre Dam Park

The corridor has a high degree of topography and steep slopes, and it bisects large open spaces with native habitat in MCAS and Mission Trails Regional Park. The canyons, parks, and waterways of the corridor are essential elements of its character and provide habitats for native wildlife as well as popular recreational destinations. Part of the corridor is designated as a scenic byway and adjacent to the corridor area are military lands, parks, and a major crossing of the San Diego River resulting in numerous sensitive environmental considerations. Its sensitive landscapes mean that there are major physical constraints to expanding transportation facilities and related Section 4(f) concerns.


**Figure 2-13** CCT Environmental Features



## CORRIDOR CONTEXT SUMMARY

	<b>Sensitive landscape</b>	Much of the corridor is composed of sensitive landscapes and protected lands such as slopes and canyons, parks, and a nearby military facility.
	<b>Focused travel market</b>	The corridor is primarily used to move people during key peak travel times by providing El Cajon, Santee, and East County access to three Tier 1 employment centers: Sorrento Mesa, University City, and Kearny Mesa.
	<b>Few direct transit options</b>	There are no direct transit options available to facilitate east-west travel. Residents who rely on transit experience much longer travel times to Kearny Mesa, Sorrento Valley, and University City compared to people with access to a vehicle.
	<b>High volumes of short trips in concentrated areas</b>	There are several areas within the corridor with higher volumes of short trips are traveling within their community and to adjacent communities for shopping, school, recreation, services, and other trips. Pedestrian and bicycle collisions are concentrated on in these areas along arterials near key activity centers, where conflicts with vehicles occur.
	<b>Serves goods movement</b>	The corridor is connected to the Port of San Diego, air cargo terminals and land ports of entry via other freeways as well as contains two landfills that attract large volumes of trucks.
	<b>Limited technology</b>	The corridor lacks technology necessary to move people and goods efficiently and provide emergency information effectively.





*Marian Bear Memorial Park is located in San Clemente Canyon and stretches from Interstate 5 to Interstate 805. The 467 acres of dedicated natural parkland provides over three miles of mostly flat trails lined with Sycamores, Oak trees and a seasonal creek.*



# Chapter 3. Engagement

## Engagement

An outreach strategy was developed early in the project process and served as a guide for focused engagement with various stakeholders, subject matter experts, and those living, working, and traveling within the corridor. The strategy was centered around raising awareness and informing stakeholders, including the general public, of the goals and objectives of the CMCP, identifying core mobility needs, challenges, and opportunities, seeking feedback on the findings, and compiling transportation strategies that will drive CMCP implementation.

Stakeholder and public engagement meetings were held throughout the CMCP effort to validate and inform each step in the planning process, as shown in **Figure 3-1**.

## ENGAGEMENT METHODS

The social distancing requirements of the COVID-19 pandemic brought unique challenges to public engagement. Engagement activities were held online and publicized through social and local media as well as community advocacy groups. Public input was obtained through a variety of media to ensure diverse participation, including limited English proficiency communities, under-resourced areas, and those without reliable access to the Internet. All public meetings were conducted in English with real-time Spanish interpretation and held at reasonable times to ensure the highest level of attendance. Online and print materials, such as e-blasts, the Virtual Engagement Hub, and presentations, were also available in both English and Spanish.

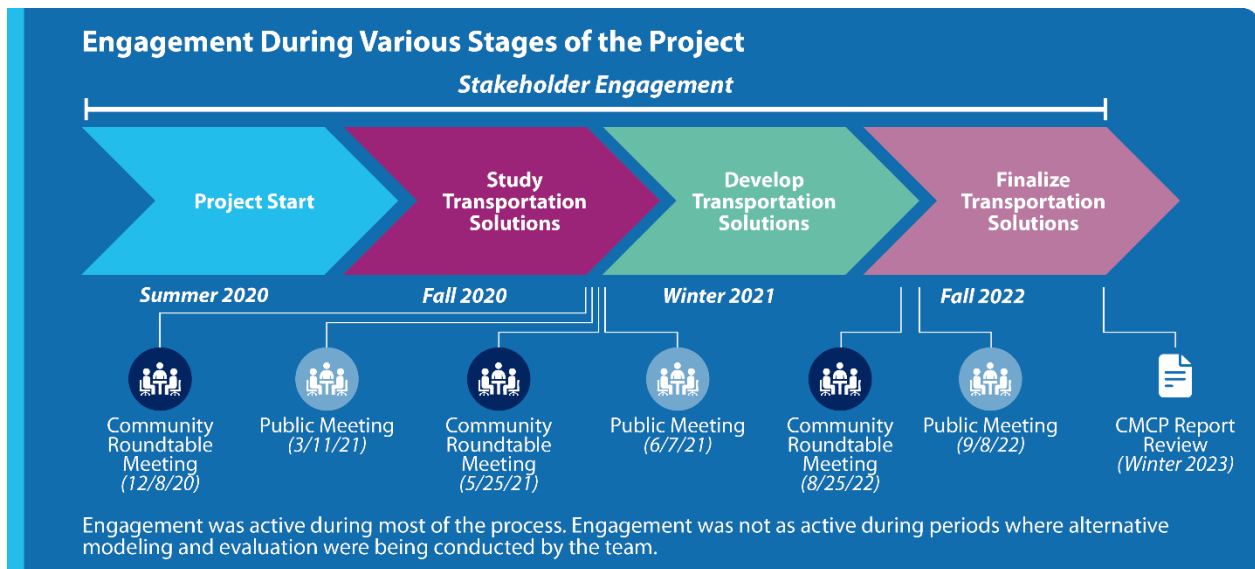
Various media and promotional outlets were used to inform stakeholders and the general public about the CMCP including:

- **Virtual Engagement Hub:** Project websites were created in English and Spanish to house project materials, including presentations and recordings from the public meetings.
- **Community Planning Groups (CPG) and Community Stakeholder Meetings:** The project team presented at ten City of San Diego CPGs and community stakeholder meetings early on in the project process to publicize the project, upcoming public meetings, and the project's Virtual Engagement Hub. Community stakeholders included local advocacy groups, businesses, and business associations.
- **Social Media:** Posts were published and promoted on SANDAG, Caltrans, and external organization social media accounts and included community engagement meeting

invites and a link to the SANDAG project website. The posts reached nearly 9,000 people and resulted in over 500 impressions on social media.

- **Local Media Release and Print Advertisements:** A press release was submitted to media outlets to announce the project and promote the public meetings. SANDAG also placed print advertisements in four local news publications.
- **E-blasts:** E-blasts were distributed to the project email list, CPGs, community stakeholders, and other organizations to promote the public meetings and encourage participation.
- **SANDAG Policy Advisory Committee:** SANDAG staff engaged with the Transportation Committee (TC) to provide project updates and solicit input.

Figure 3-1 CMCP Engagement Process



## PUBLIC ENGAGEMENT

Community members and community-based organizations (CBO), which can be a public or private nonprofit organization, were consulted to gather a variety of perspectives and views on the corridor needs, challenges, opportunities, and transportation solution strategies (TSS). The project’s Virtual Engagement Hub and virtual public meetings were the two main avenues for engaging community members. The project team also presented at ten CPG meetings during Fall 2021. A full list of engagement events and efforts is included in **Appendix C**.

There were two main phases of public engagement during the CMCP process.

The dates, number of attendees, and survey responses are shown in **Table 3-1** Public Engagement Phases. During Phase 1, project team members introduced the project and asked community members to provide their thoughts on the existing challenges and opportunities within the corridor. This input, coupled with transportation data within the Study Area and Area of Influence, and community/local, regional, and state plans informed the creation of TSS. Phase 2 focused on sharing the proposed TSS and receiving feedback.

Comments from the public included TSS suggestions and comments about issues throughout the Study Area. These comments were evaluated by the project team and considered when evaluating the universe of TSS. Key takeaways from the engagement process include:

- **Sensitive Landscapes:** Many comments were supportive of preservation, protection, and enhancement of sensitive areas, such as Sycamore Canyon, Marian Bear Memorial Park, and Rose Canyon. The proposed TSS should not adversely impact these areas.
- **Multimodal Transportation Options:** There was an overall desire for more transportation choices in the corridor, especially transit and active transportation.

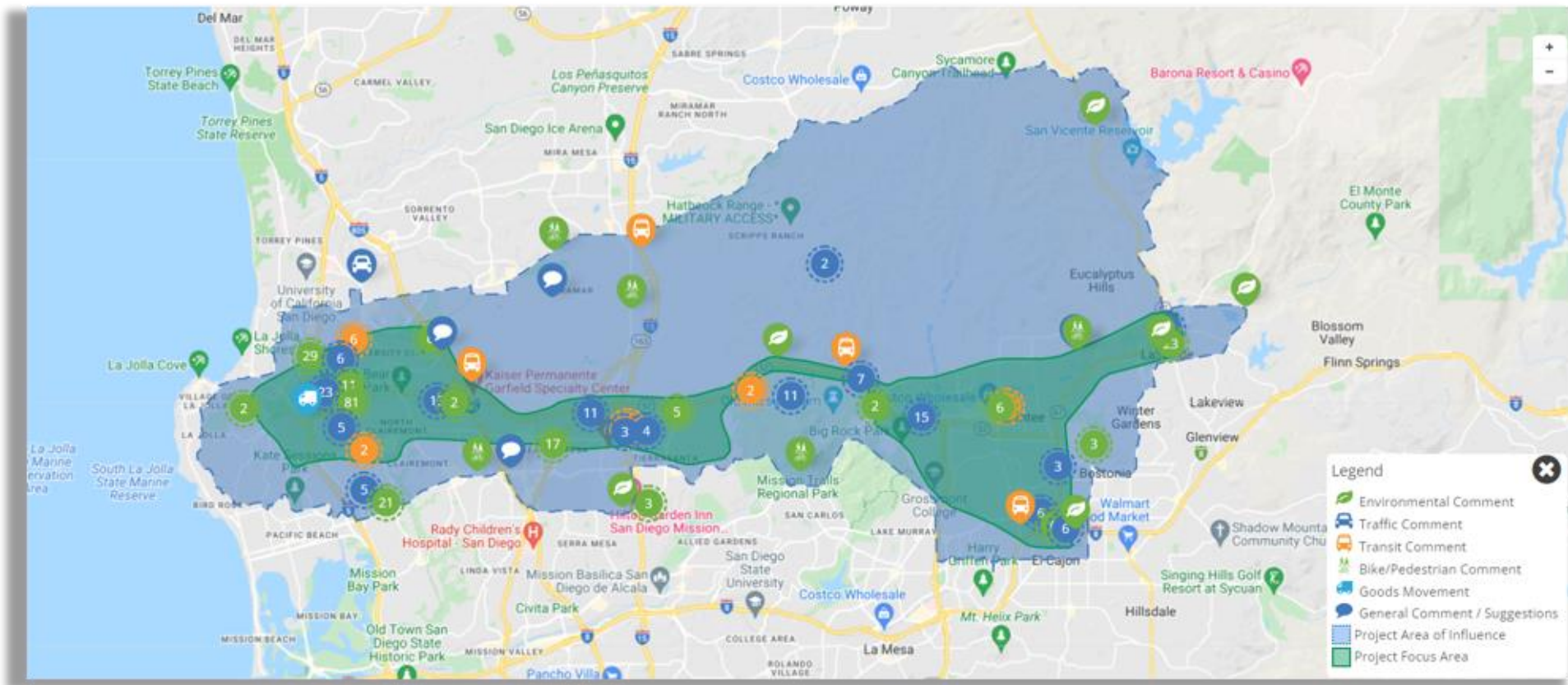
**Appendix C** contains a list of comments received throughout the project process.

*Table 3-1 Public Engagement Phases*

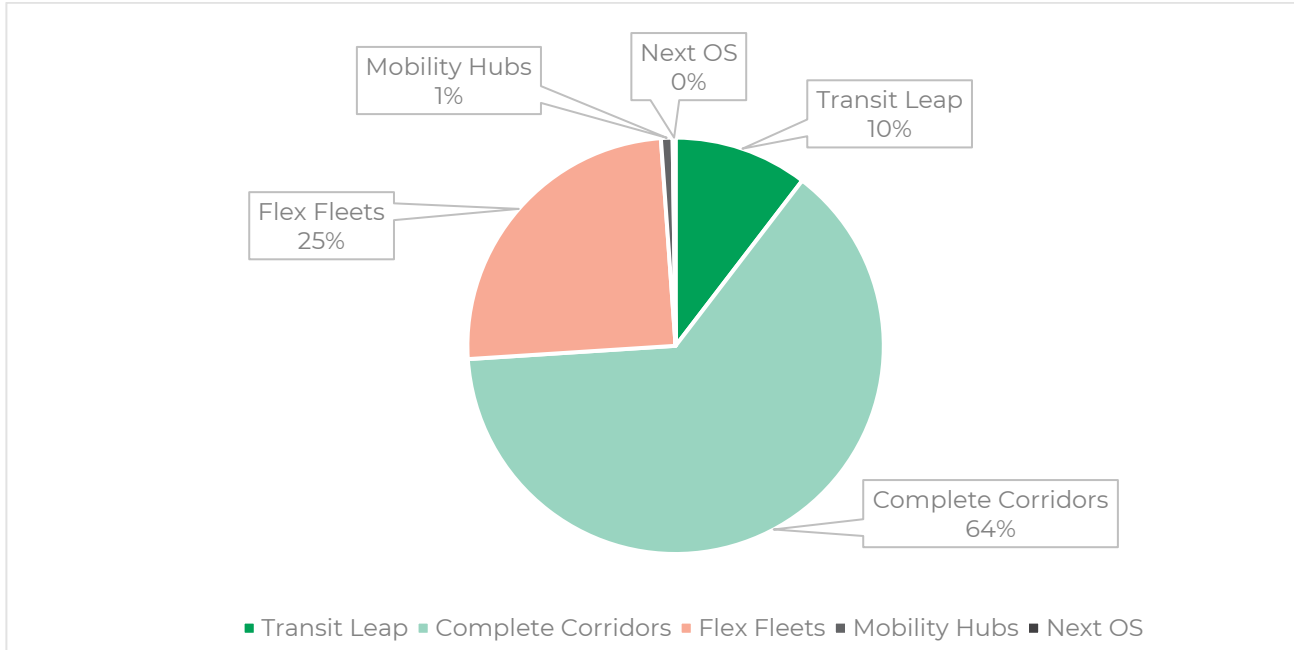
<b>PUBLIC MEETING #1 &amp; OPEN COMMENTS</b> (JUNE 28, 2021 – JUNE 28, 2022)	34 attendees
	311 survey responses
	472 interactive map comments
<b>PUBLIC MEETING #2 &amp; OPEN COMMENTS</b> (JUNE 29, 2022 – JULY 15, 2022)	32 attendees
	13 survey responses
	19 interactive map comments



Figure 3-2 CCT CMCP Virtual Engagement Hub – Interactive Comment Map



**Figure 3-3** Virtual Engagement Hub Comments by 5 Big Moves Category



## TECHNICAL AND STAKEHOLDER INPUT

Technical and stakeholder engagement was also conducted throughout CMCP development, including focused meetings with SMEs and a Stakeholder Working Group (SWG). The SMEs included planners, engineers, and representatives from various public agencies. Each SME has a unique perspective and skill set based on their respective background. The SMEs were broadly grouped by the SANDAG 5 Big Moves. The SWG consisted of participants from local, state, and federal agencies and organizations.

Throughout the development of the CMCP, the project team collaborated with the SMEs and SWG, leveraging their knowledge, experiences, and insights to inform the CMCP initiatives and transportation solutions. The SWG also assisted in providing historical knowledge, voicing community concerns, and connecting engagement efforts of social equity focus communities.

**Appendix C** includes a list of SMEs and stakeholders involved in the project process.

# Chapter 4. Transportation Solution Strategies

## Transportation Solution Strategies

Building on the insight and the key takeaways resulting from the existing conditions analysis, planning documents review, and engagement activities, the project team developed TSS to address the corridor’s needs through the year 2050.

The TSS proposed in this plan align with the SANDAG 2021 Regional Plan and its five transformational strategies— the 5 Big Moves—integrated into one regional transportation system. These 5 Big Moves (Complete Corridors, Transit Leap, Mobility Hubs, Flexible Fleets, and the Next Operating System (OS)), are the lens through which the TSS have been developed and organized.

## RESOURCES USED TO IDENTIFY THE TSS

TSS were developed by revisiting previous planning efforts conducted for the San Diego region and analyzing the CCT Corridor in greater detail. TSS were developed based on the following documents and input:

- **SANDAG 2021 Regional Plan** – The 2021 Regional Plan serves as a long-term blueprint for the San Diego region that seeks to meet regulatory requirements, address traffic congestion, and create equitable access to jobs, education, healthcare, and other community resources.
- **Other Studies in the Corridor** – Over 35 local, regional, and state plans and programs were reviewed and provided a comprehensive overview of the corridor characteristics. The TSS proposed in the CMCP align and support these initiatives already underway in the study area.
- **Supplemental Analysis** – The project team analyzed several key aspects of existing and future conditions, including population and job density, land use, travel times, travel flows, and transit and active transportation connectivity to examine the needs and potential of the corridor in greater detail than was feasible in the 2021 Regional Plan.

- **Subject Matter Expert Ideation** – The SME ideation workshops convened in April 2022, which focused on specific elements of this corridor relating to the 5 Big Moves, equity, environment, and land use. The SME focus group workshops were held with consultant technical experts to collaboratively promote discussion, ideas, and decisions, and to identify the important factors that should go into strategy development.
- **Project Team, Stakeholder Working Group (SWG), and Public Input** – Draft TSS were presented to the project team, SWG, and the public. Meetings were held with each group to obtain feedback and refine the proposed TSS. Members of the public were invited to share their input at Public Meeting #2 or provide feedback on the draft TSS through digital surveys that were available on the Virtual Engagement Hub.

## TRANSPORTATION SOLUTION STRATEGIES

Each of the 5 Big Moves has several key features that act as a toolkit and provide a basis for potential TSS that could be applied to the corridor. The key features are described as follows:



The Flexible Fleets strategy builds on the popularity of shared mobility services such as on-demand rideshare, bikeshare, and scootershare. These fleets provide different mobility options and vehicles for all types of trips, including package deliveries, thus reducing the need to own a car. Services can make it easier for a person to connect to high-speed transit and other important destinations by providing a first and last-mile connection or fulfilling a complete trip.





**Mobility Hubs**

Mobility Hubs are places of connectivity where different travel options – walking, biking, transit, and shared mobility – come together. Local hubs can include a few elements such as a bikeshare station next to a fixed-route bus stop, while larger hubs can include a major transit station supported by carshare, package delivery lockers, electric vehicle charging stations, rideshare facilities, etc.



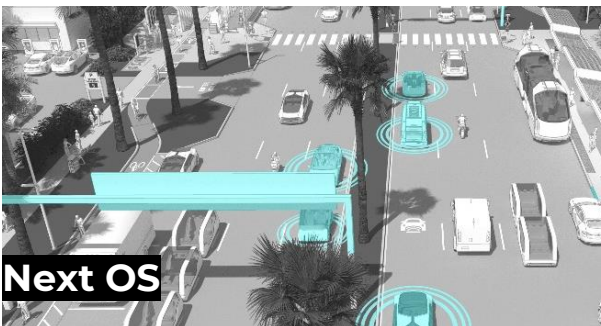
**Transit Leap**

Transit Leap includes commuter rail, light rail, next generation Rapid Bus, local bus, park-and-rides, and increased frequencies and services on existing routes. Transit Leap can also include technology and guideway improvements such as transit signal priority, flex lanes, and grade separations.



**Complete Corridors**

Complete Corridors include Managed Lanes, Direct Access Ramps, and truck climbing lanes. It also includes the updated Regional Arterial System that includes improvements to primary arterials, and other major streets including active transportation and incorporation of resiliency elements such as wildlife crossings, green infrastructure, and utility enhancements.



**Next OS**

Next OS focuses on using technology to create an integrated transportation system that allows for booking multiple modes of travel, managing pickup-dropoff locations, optimizing transit/passenger car routing, and coordinating intersection signalization on a corridor.

## MULTIMODAL NETWORK DEVELOPMENT

To develop a multimodal transportation network around the 5 Big Moves, the project team reviewed the distribution and density of population and employment, concentration of social equity focus communities, travel flows, and environmental constraints, all of which are summarized in Chapter 2.

Within the corridor, the Tier 1 employment centers in Kearny Mesa and University City are key destinations that attract a large number of trips, especially work-related trips. The Tier 1 employment center in Sorrento Mesa is also accessible to Santee, El Cajon and East County residents via the corridor. Data indicates that the high population densities and social equity focus communities in the eastern portion of the study area in Santee and El Cajon have a high degree of travel to these Tier 1 employment centers, but no direct access via transit or other non-single occupancy vehicle modes. Residents who rely on transit experience much longer travel times to these Tier 1 employment centers compared to people with access to a vehicle. The TSS focus on solving this problem of inequitable access to employment and other key activity centers by connecting these communities via direct and frequent transit service and other transportation options.

The plan identifies key locations of population and employment densities and equity factors where mobility hubs serve as key connection points to other transit and activity centers including the recreational assets in the corridor. Access to and from the mobility hubs is expanded with first/last mile connections to the surrounding communities via new bikeways, micromobility, and microtransit services. The TSS work together across the 5 Big Moves to achieve an equitable and balanced multimodal transportation system for the CCT Corridor.

## PROPOSED TSS

The TSS inventory is a comprehensive set of projects and programs for implementation in the CCT Corridor by 2050. **In total, 367 TSS are proposed for the CCT Corridor.** A complete list of all proposed TSS can be found in **Appendix D**.

The maps and conceptual renderings on the following pages highlight how select TSS work together to create direct transit connections to key employment centers that are enhanced through transit priority treatments and first and last mile solutions to key activity centers and transit.

**Figure 4-1** Proposed TSS by 5 Big Moves Category

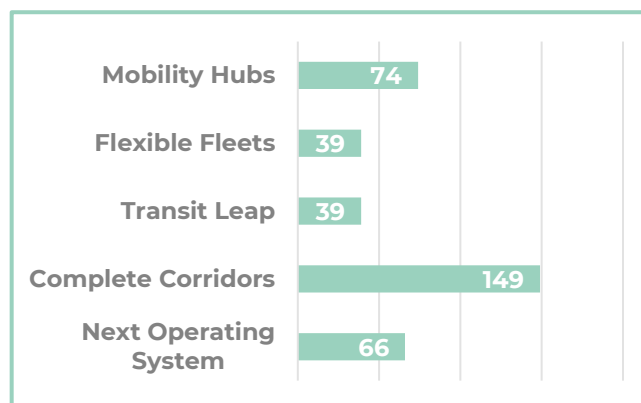




Figure 4-2 First and Last Mile Strategies

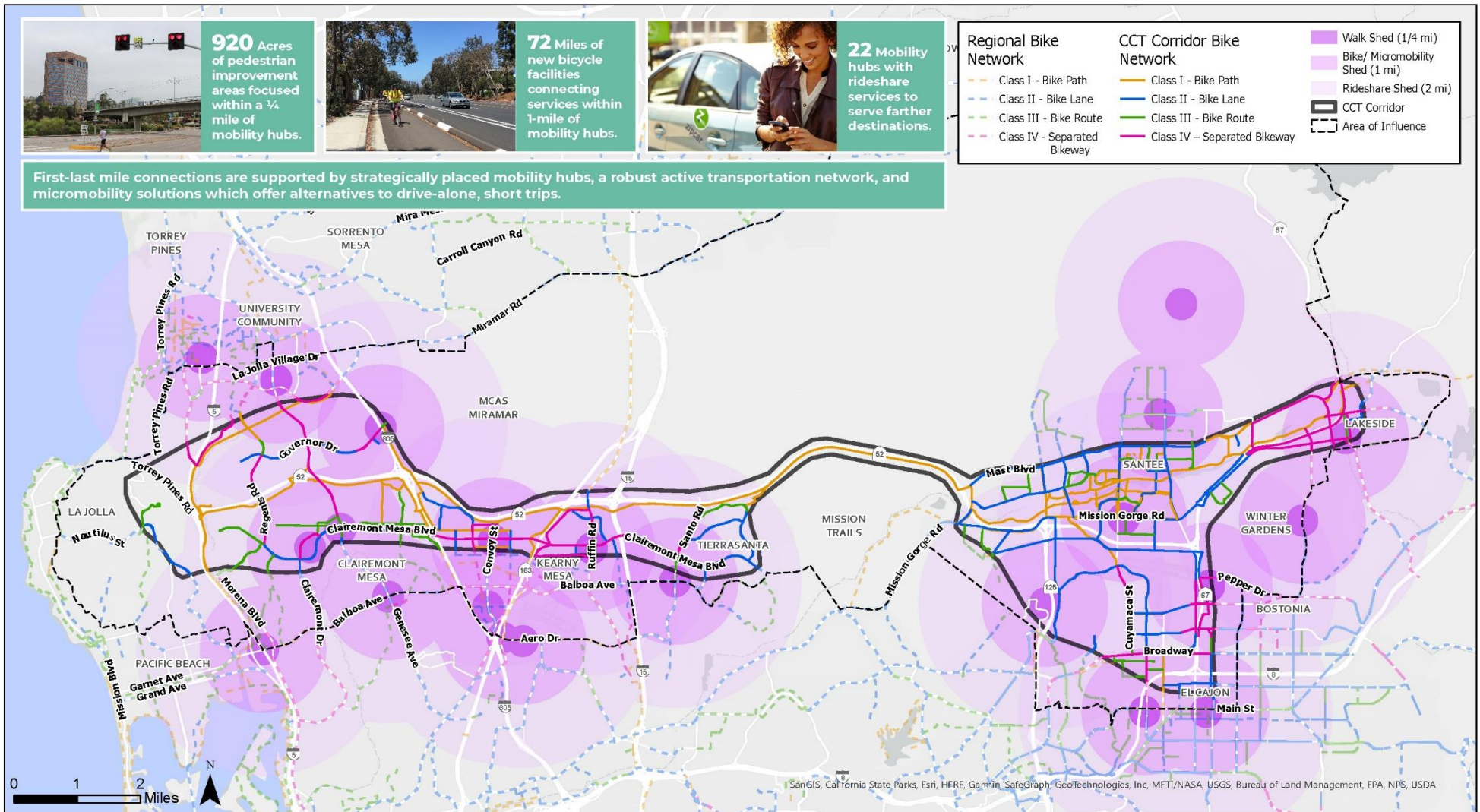


Figure 4-3 Transit Leap Strategies

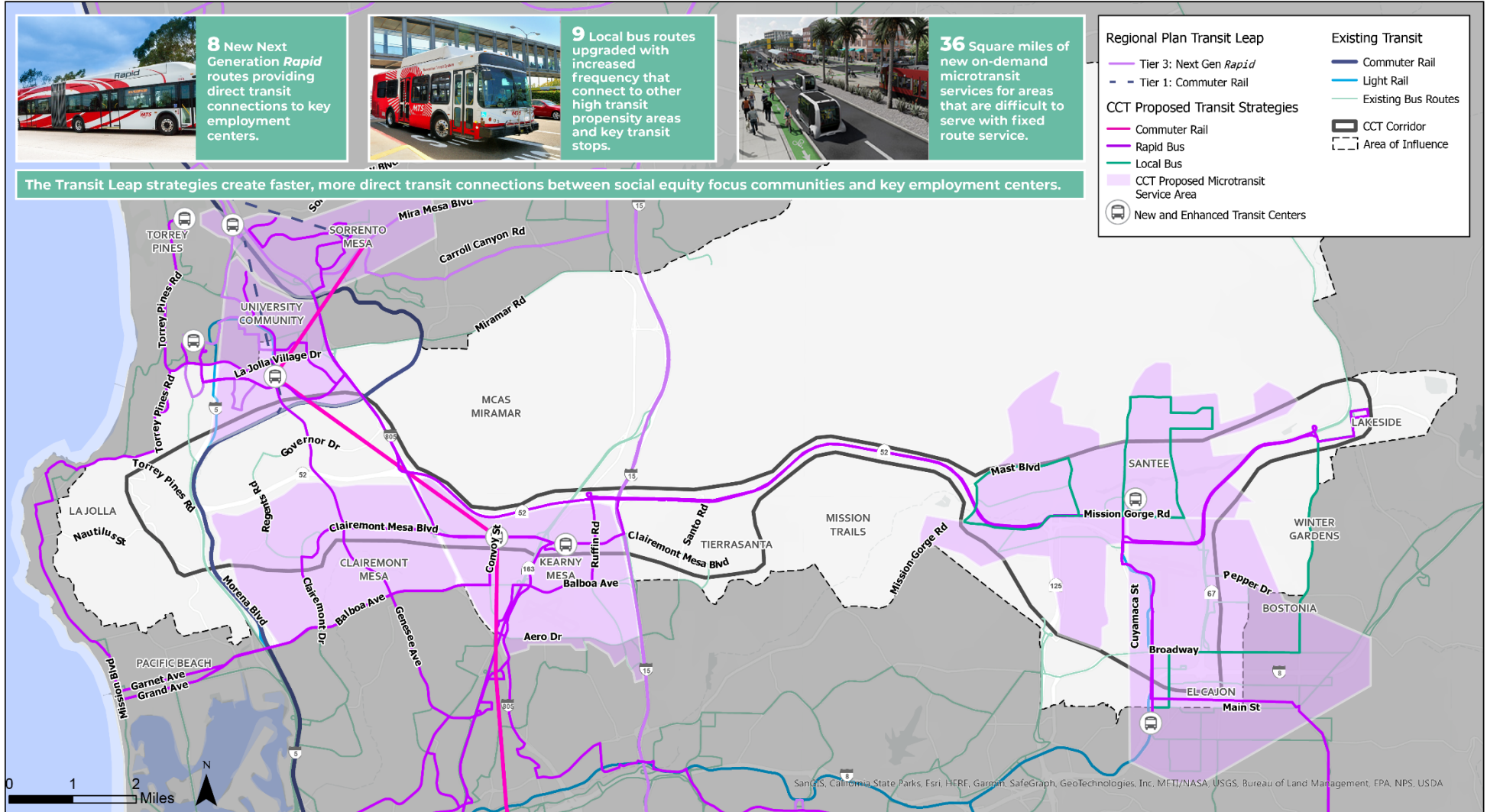
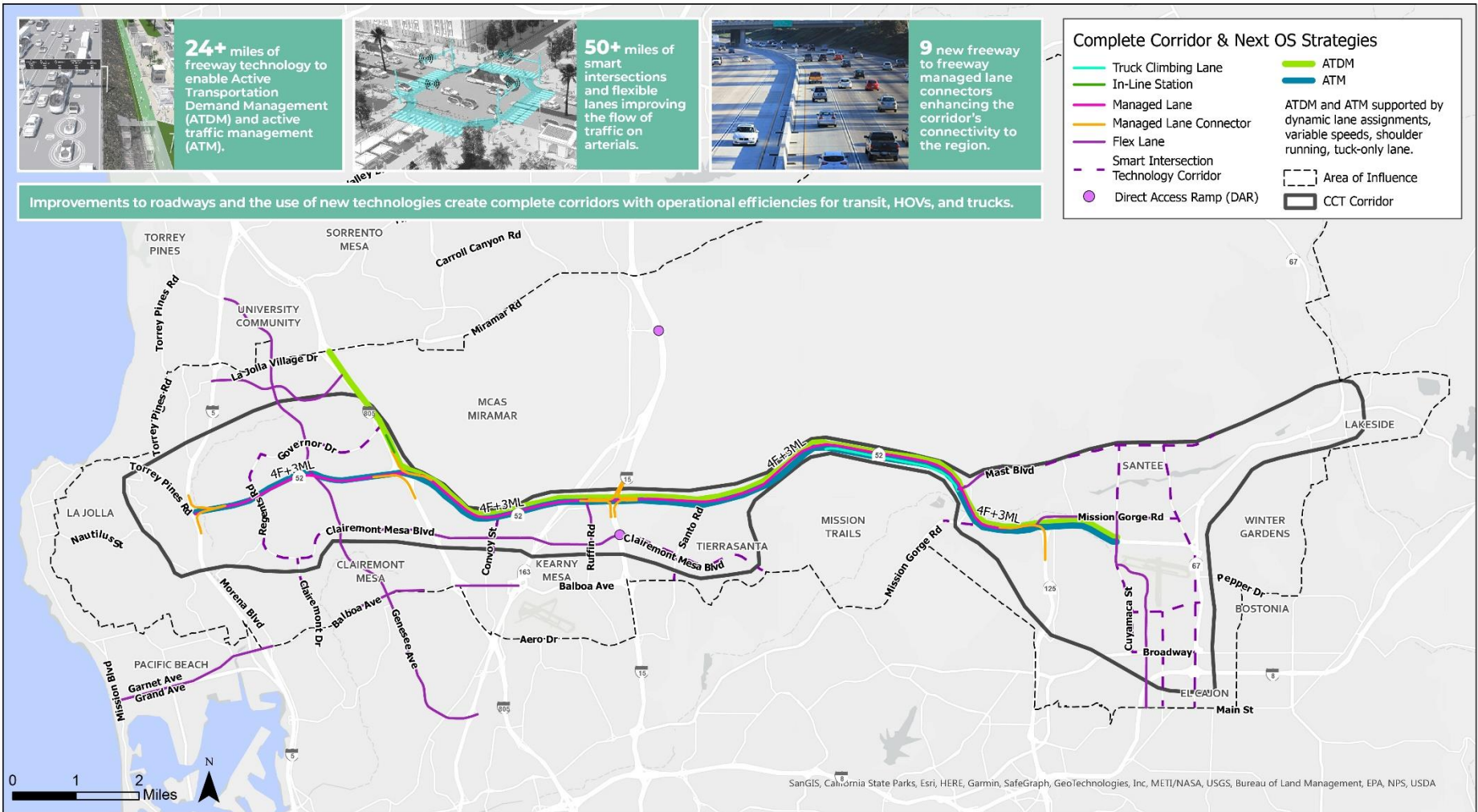




Figure 4-4 Complete Corridors & Next OS

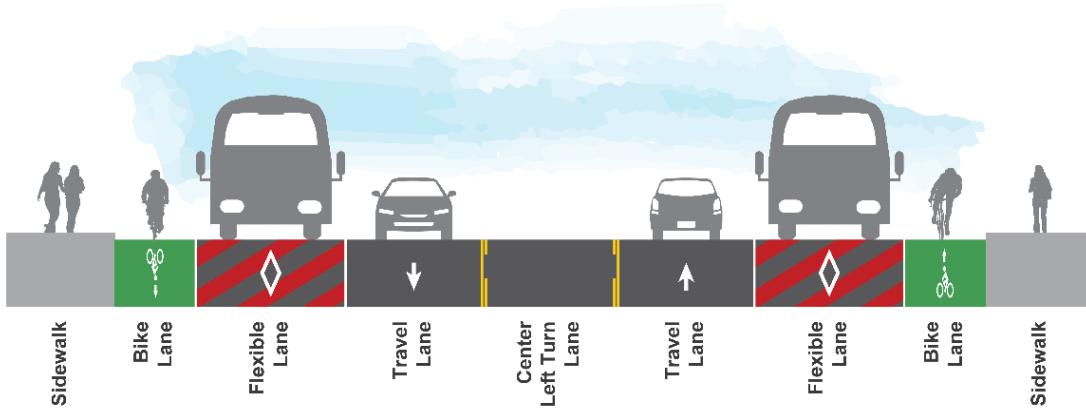




**Figure 4-5** State Route 52 Proposed Complete Corridor Concept



**Figure 4-6** Marshall Avenue Proposed Complete Corridor



## ALTERNATIVES

The TSS are organized into three alternatives for review and analysis. All three alternatives are compared to the no build alternative from the 2021 Regional Plan. **Table 4-1** below illustrates the differences between the alternatives. **Appendix D** provides detailed information about the alternatives.

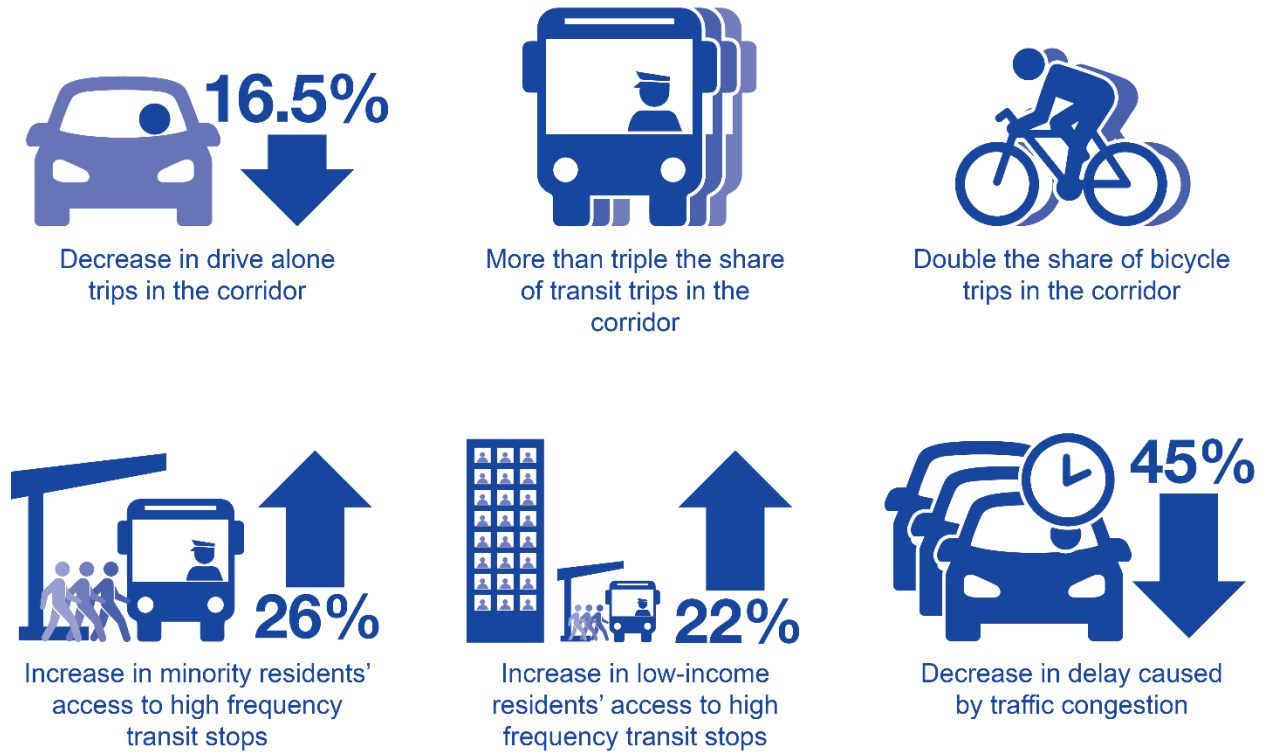
**Table 4-1:** Alternatives Summary

Alternative	TSS Summary
Alternative 1	2021 Regional Plan
Alternative 2	Alternative 1 plus the following changes: <ul style="list-style-type: none"> <li>• 2 new <i>Rapid</i> routes</li> <li>• 6 new/expanded transit centers</li> <li>• 4 new microtransit service areas</li> <li>• Modifications to 4 <i>Rapid</i> routes in the 2021 Regional Plan</li> </ul>
Alternative 3	Alternative 2 plus the following changes: <ul style="list-style-type: none"> <li>• 1 new <i>Rapid</i> route</li> <li>• 1 new in-line freeway <i>Rapid</i> station</li> <li>• 2 new microtransit service areas in lieu of 2 local bus routes</li> </ul>

## PERFORMANCE HIGHLIGHTS

Alternatives 1, 2, and 3 all provide substantial benefits over the no build alternative in the 2021 Regional Plan. The TSS achieve a more balanced transportation system with fewer people driving alone and more people walking, bicycling, and using public transit. The TSS increases access to high frequency transit for low-income and minority populations, improves access to the region's largest employment centers and education campuses, reduces traffic congestion, and reduces air pollution. Further detail on alternatives and performance results can be found in **Appendix D**.

**Figure 4-7** Average Benefits of the CMCP Build Alternatives Compared to the No Build



# Chapter 5. Implementation

## Implementation

This chapter presents the implementation plan for the TSS, including a phasing plan and cost estimates. This chapter also provides an overview of the various federal, state, and local funding sources available to implement the TSS.

The CCT CMCP was developed with guidance from regional, local, and statewide plans. In turn, this CMCP will guide future iterations of regional, local, and statewide plans. The final TSS inventory will also be considered in the development and update of the next Regional Plan.

## PHASING

With such a large number of TSS developed for the CCT Corridor, not all TSS can be implemented at once. A two-step approach was used to determine the implementation of each TSS as presented in **Figure 5-1**. First, each TSS was qualitatively evaluated against the following five criteria:

- Construction/design complexity
- Environmental clearance
- Right-of-way needs
- Cost
- Policy considerations

For each criterion, the TSS were scored low (3 points), medium (2 points), or high (1 point), with low values being best and high values being worst for quick implementation. Each TSS received a minimum score of 5 and a maximum score of 15. The best performing TSS had the highest scores due to low construction/design complexity, easier environmental clearance due to minimal environmental documentation requirements, few or no property acquisition needs, low cost, and no policy or legislative hurdles. Therefore, these TSS are the most expedient to implement and can generally be done sooner; however, there are two additional factors to take into consideration.

Following the initial scoring, each TSS was evaluated against the following two additional factors:

1. Dependencies – identified whether the TSS must be preceded by implementation of another TSS. A TSS with a high score may have been pushed from the short-term phase to the medium-term if it is dependent on implementation of a medium-term



TSS. To avoid developing projects simultaneously at risk, it was assumed that one TSS would be fully implemented before the dependent TSS project would begin construction.

2. Readiness – assessed whether technologies, programs, processes, or partnerships are in place to support TSS implementation. For example, although there have been efforts to develop a regionwide mobile app to support multimodal trip booking and planning, such technology has not been deployed yet in San Diego; its implementation was delayed to the medium-term phase when the technology may be available. As in other cases, the TSS phasing would be adjusted according to likely deployment and readiness.

As a result of the initial scoring and additional factors, the strategies were organized into the following timeframes:

- Short-Term: less than 5 years
- Medium-Term: 6 to 15 years
- Long-Term: more than 15 years

Figure 5-1 Implementation Phasing Process

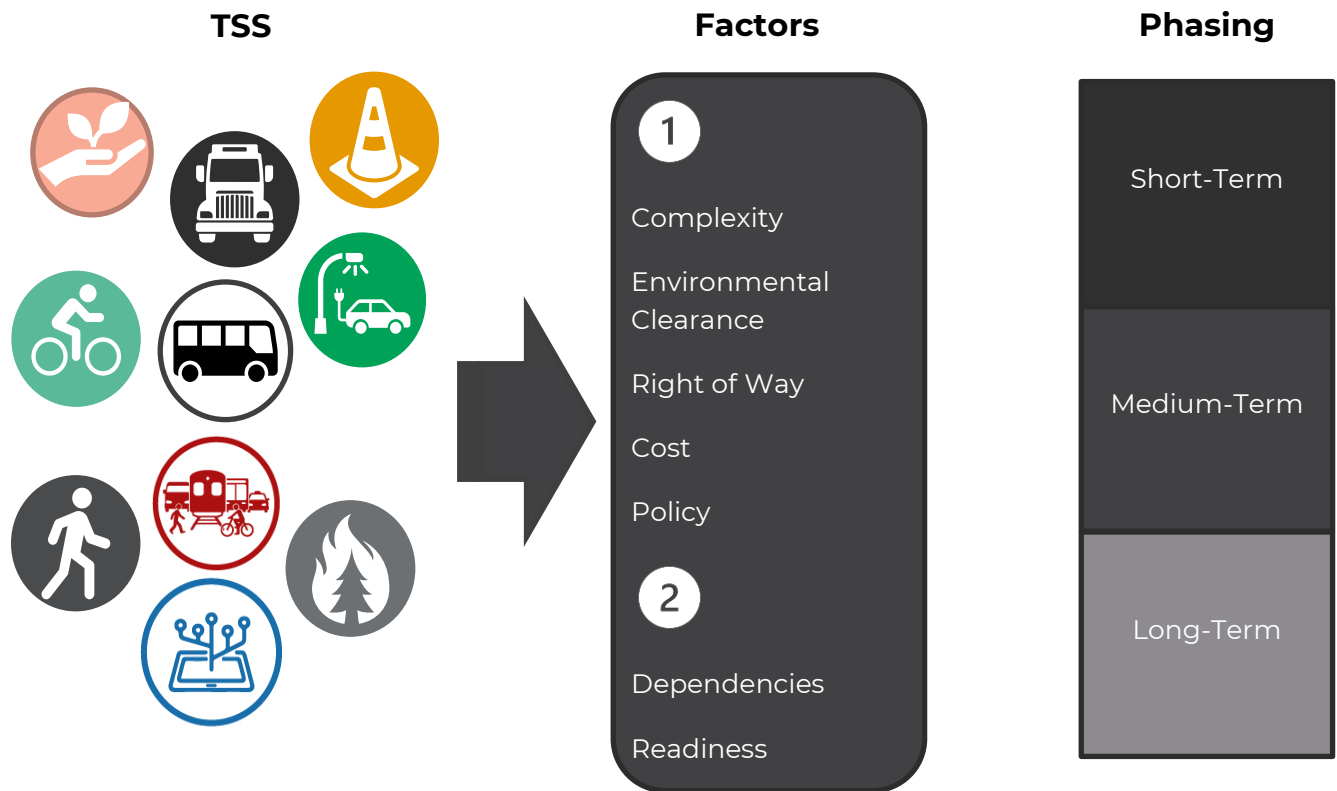


Table 5-1 summarizes the TSS by implementation phase. The comprehensive list of TSS is presented in Appendix E and includes the implementation phasing for each TSS.

**Table 5-1** CCT Transportation Solution Strategies by Implementation Phase

PHASE	NO. OF STRATEGIES
Short-Term Implementation	182
Medium-Term Implementation	143
Long-Term Implementation	42
<b>Transportation Solution Strategies - All Timeframes</b>	<b>367</b>

## COST ESTIMATES

Capital or operating costs are estimated for each TSS. Costs are rough order of magnitude costs, primarily estimated by using methods from the 2021 Regional Plan and other CMCPs. Other costs that were not included in the SANDAG Regional Plan process or other CMCPs were identified through discussions with subject matter experts.

Cost estimates for the TSS have been escalated to 2022 dollars<sup>4</sup> and include a 25-30% contingency, which is customary for transportation improvement projects at the conceptual planning stage.

**The total capital cost of the 367 strategies is approximately \$26.9 billion.** Securing new funding is necessary to fully implement the CCT CMCP. Potential funding sources are described further in the Funding Sources section and **Appendix E**.

**Table 5-2**, below, summarizes the transportation solution strategies by cost for short-term, medium-term, and long-term implementation.

**Table 5-2** Transportation Solution Strategies by Implementation Phase and Cost

PHASE	COST (BILLION DOLLARS)
Short-Term Implementation	\$1.5
Medium-Term Implementation	\$22.7
Long-Term Implementation	\$2.7
<b>Transportation Solution Strategies Cost</b>	<b>\$26.9</b>

## FUNDING SOURCES

Funding for transportation improvements and enhancements is available through various federal, state, and local sources and programs. Depending on the source, eligible projects vary by transportation mode, scope, and project phase. Some funding programs allocate

<sup>4</sup> The Department of General Services (DGS) California Construction Cost Index was used to escalate costs provided in the 2021 Regional Plan to adjust for inflation.

resources through competitive grant processes or other discretionary means, while other funds are distributed by formula to state, regional, or local public agencies.

There are two main types of grants available for transportation solutions within the CCT CMCP: discretionary and formula. Discretionary grants permit the agency to exercise judgment in selecting recipients through a competitive grant process. For formula grants, the award amount is calculated by formulas and statutes that favor statistical criteria for specific types of work. **Appendix E** includes more detailed funding source information.

## LIMITATIONS OF THE PLAN

The CMCP is an integrated set of TSS implemented as projects and programs that will support equitable, resilient, and safe travel across the CCT Corridor resulting in a more comprehensive set of travel choices through 2050 and beyond. The process to develop these TSS included collaboration among local, regional, and state transportation agencies, elected officials, community-based organizations, and the public. Most projects and programs described herein are high-level concepts that will require further planning in order to proceed with project initiation studies that would secure additional funding for design and construction. The analysis performed for this study can help prioritize and advance solutions in the planning process, but each project must individually undergo each step in the environmental review, design, and construction stages, providing many more opportunities for public engagement to ensure the community has an opportunity to shape our future infrastructure.

As of the date of publication, the CMCP contains the most current information to identify TSS for the CCT Corridor through 2050. However, as technological advances influence the way people and goods travel and existing conditions change over time, the work in this document will need to be reevaluated.

## NEXT STEPS

SANDAG, Caltrans, and the members of the project team will continue to collaborate and advocate for the advancement of these recommended projects, programs, and policies, seeking stakeholder input to help refine recommended strategies. The CMCP can also serve as a mechanism to compete for and secure the funding needed to advance specific strategies by highlighting the corridor needs and the importance of this comprehensive set of strategies to address such challenges. The CMCP can help inform future local and regional plans, including the 2025 Regional Plan. Throughout all future actions, stakeholders will have many more opportunities to help refine recommended strategies.