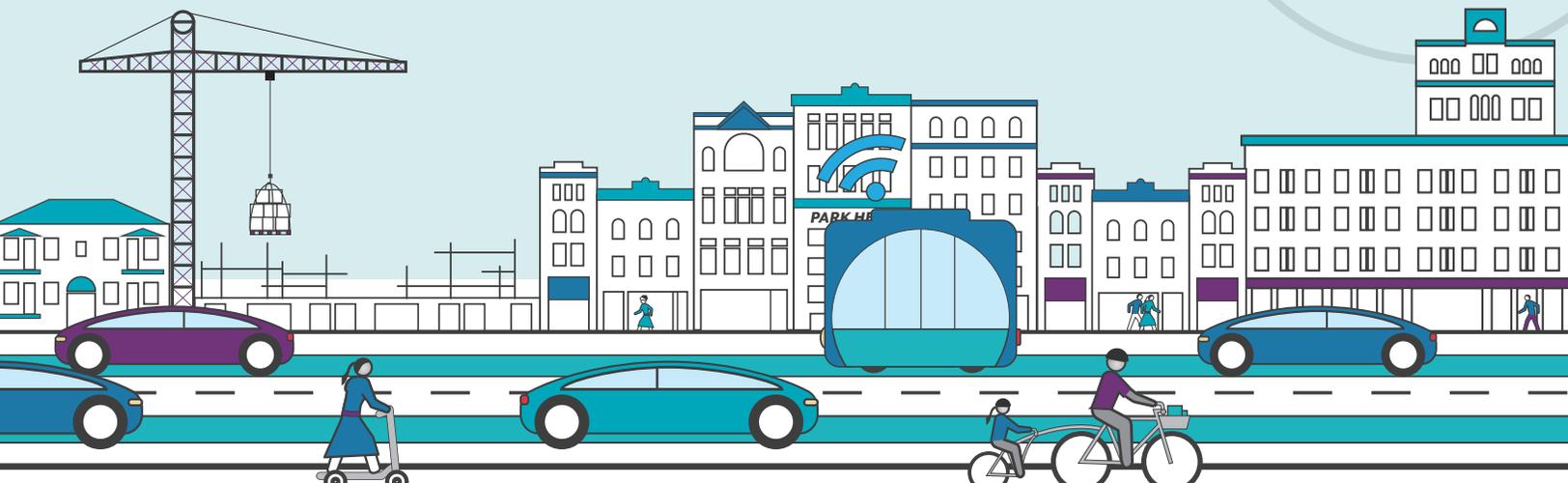


City of Rancho Cordova

MOBILITY MASTER PLAN

Adopted June 2019



ACKNOWLEDGEMENTS

City Council

Robert J. McGarvey, Mayor

David M. Sander, Vice Mayor

Garrett Gatewood, Council Member

Donald Terry, Council Member

Linda Budge, Council Member

City Staff

City of Rancho Cordova Public Works

Albert Stricker, Public Works Director

Mark Thomas, Senior Engineer

Rupa Somavarapu, Senior Civil Engineer

Stakeholder Interviewees

Heather Schelske, Neil Orchard Senior Activities Center

Henry Horn, Rancho Cordova Adult Day Health Care Center

Joyce Heiland, Folsom Lake College - Rancho Cordova Center

Brian Robinson, Folsom Lake College - Rancho Cordova Center

Denise Brandt, National University

Tony Lucas, Sacramento State

Sarah Janus, UC Davis Medical Center

Amy Bianco, San Joaquin Valley College

Consultant Team

Tim Payne, Nelson\Nygaard

Jamey Dempster, Nelson\Nygaard

Maggie Derk, Nelson\Nygaard

Corinna Kimball-Brown, Nelson\Nygaard



CONTENTS

Executive Summary	ii
Introduction	1
Mobility Themes	3
Safe	15
Coordinated	21
Responsive	29
Efficient	37
Flexible	47
Implementation Plan	55
Appendix A: Stakeholder Interview Summary	
Appendix B: City Council Meeting Notes	
Appendix C: Online Survey Promotional Materials	
Appendix D: Online Survey Analysis	
Appendix E: Technical Memorandum 1: Needs and Opportunities	

EXECUTIVE SUMMARY

RANCHO CORDOVA MOBILITY MASTER PLAN

Rancho Cordova will provide safe, coordinated, responsive, efficient, and flexible mobility options that support community needs.

Rancho Cordova's Mobility Master Plan provides the City with a long-range vision for public transportation and shared mobility services in Rancho Cordova. As an update to the 2006 Transportation Master Plan (TMP), the 2019 Mobility Master Plan (MMP) describes how the City will prioritize and leverage existing resources and new mobility trends to provide a transportation system that best meets the needs of residents, visitors, and employees over the next 20 years.

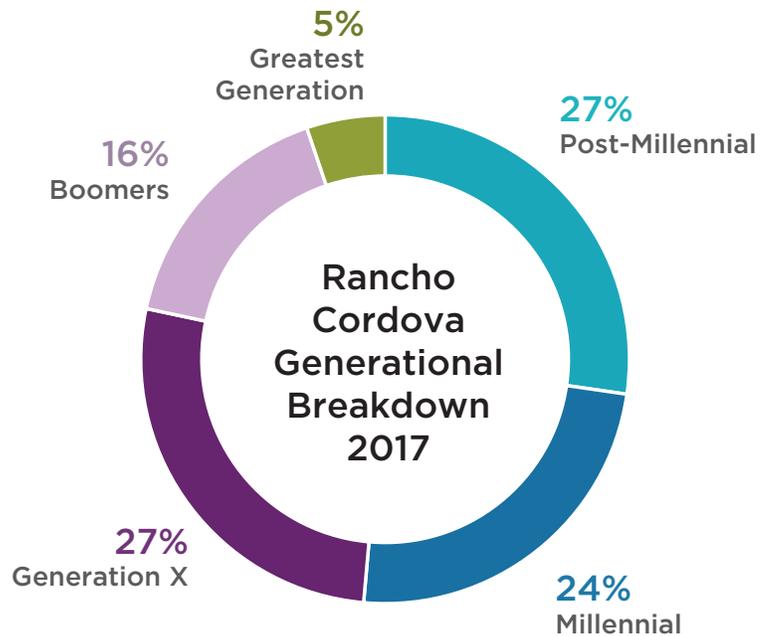
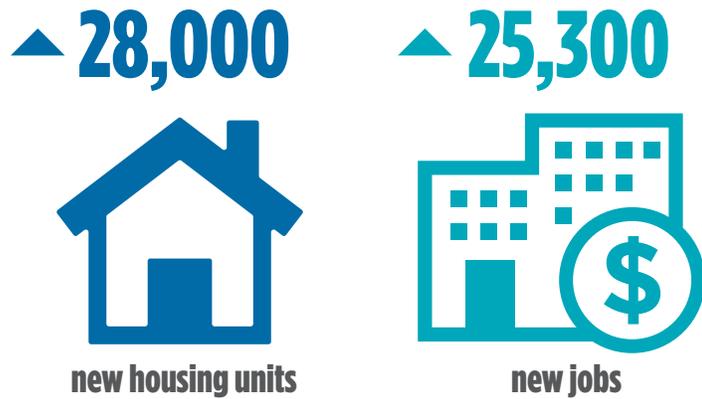
Transportation needs and expectations are changing.

Rancho Cordova is expected to add approximately 28,000 new housing units and 25,300 new jobs by 2036. **Mobility services need to accommodate future population and employment growth.**

Several transportation options are available within Rancho Cordova (light rail, bus service, walking, biking) but **enhancements to existing infrastructure and services are needed** to address a perceived lack of safety and meet people’s transportation needs.

Transportation preferences are changing. Millennials and Post-Millennials, who make up a large percentage of the population, tend to take a multimodal approach to transportation and prefer to have flexibility in how they move. Outreach efforts indicated that **people in Rancho Cordova are interested in more flexible travel options**, particularly ride-hailing and taxis (e.g. Lyft, Uber), dynamic carpooling (e.g. Carzac, Waze Carpool, Scoop), dynamic Transit (e.g. TransLoc, Via, Chariot, Bridj), and electric assist bikes and scooters that can be shared.

BY 2036...



For the purpose of this Mobility Plan, the birth years for each generation is defined as: Greatest Generation 1932 or earlier to 1942; Baby Boomers: 1943-1962; Generation X: 1963-1982; Millennials: 1983-1997; Post-Millennials: 1998-2017.

Traffic congestion was identified as a key challenge for Rancho Cordova and the city is only **expected to continue to grow**. Future predictions of settlement and employment patterns indicate regional commuters will continue to be an important and critical market to serve. A large portion of Rancho Cordova’s workforce (50,000 people) travel in from surrounding cities, increasing the population daily to nearly 100,000.



The MMP is organized around five key mobility themes.

The mobility themes are intertwined, closely related concepts to provide a clear yet flexible planning framework. Strategies included in this Plan may fall under several themes but are summarized under a single theme for clarity.



SAFE: Improved safety for all mobility options will help propel mode shift to non-drive alone modes.



COORDINATED: Coordinated mobility options will encourage a multimodal lifestyle for Rancho Cordova residents, employees, and visitors.



RESPONSIVE: Provide a mix of land uses that support the community’s socioeconomic needs and a variety of mobility options.



EFFICIENT: Move people efficiently to, from, and within Rancho Cordova.



FLEXIBLE: Provide flexible mobility options.

The MMP addresses three future scenarios.

Current trends in public transportation, shared mobility, and technology indicate several possible future scenarios for Rancho Cordova, with little certainty in any one direction.



SCENARIO 1 Traditional Transportation:

Rancho Cordova is focused on investments in traditional fixed-route transit services (e.g., bus and light rail) and works with SacRT or other traditional transit service providers to improve transit.



Strategies under Scenario 1 may include enhancements to existing transportation infrastructure, such as Sunrise Gold Line Station in Rancho Cordova.



SCENARIO 2 New Mobility Services:

Rancho Cordova is focused on new or emerging mobility (e.g., ride-hailing, car and bike share, dynamic transit) that support human drivers, leading to a moderate adoption of future transportation technologies. Strategies in this scenario tend to be medium-term investments given both the level of investment, coordination effort, and the pace at which some strategies are evolving. These same factors could mean that the City realizes some opportunities in the near-term.



Strategies under Scenario 2 may include investments in new and emerging mobility such as Sacramento Regional Transit District's (SacRT) dynamic transit service, Smart Ride.



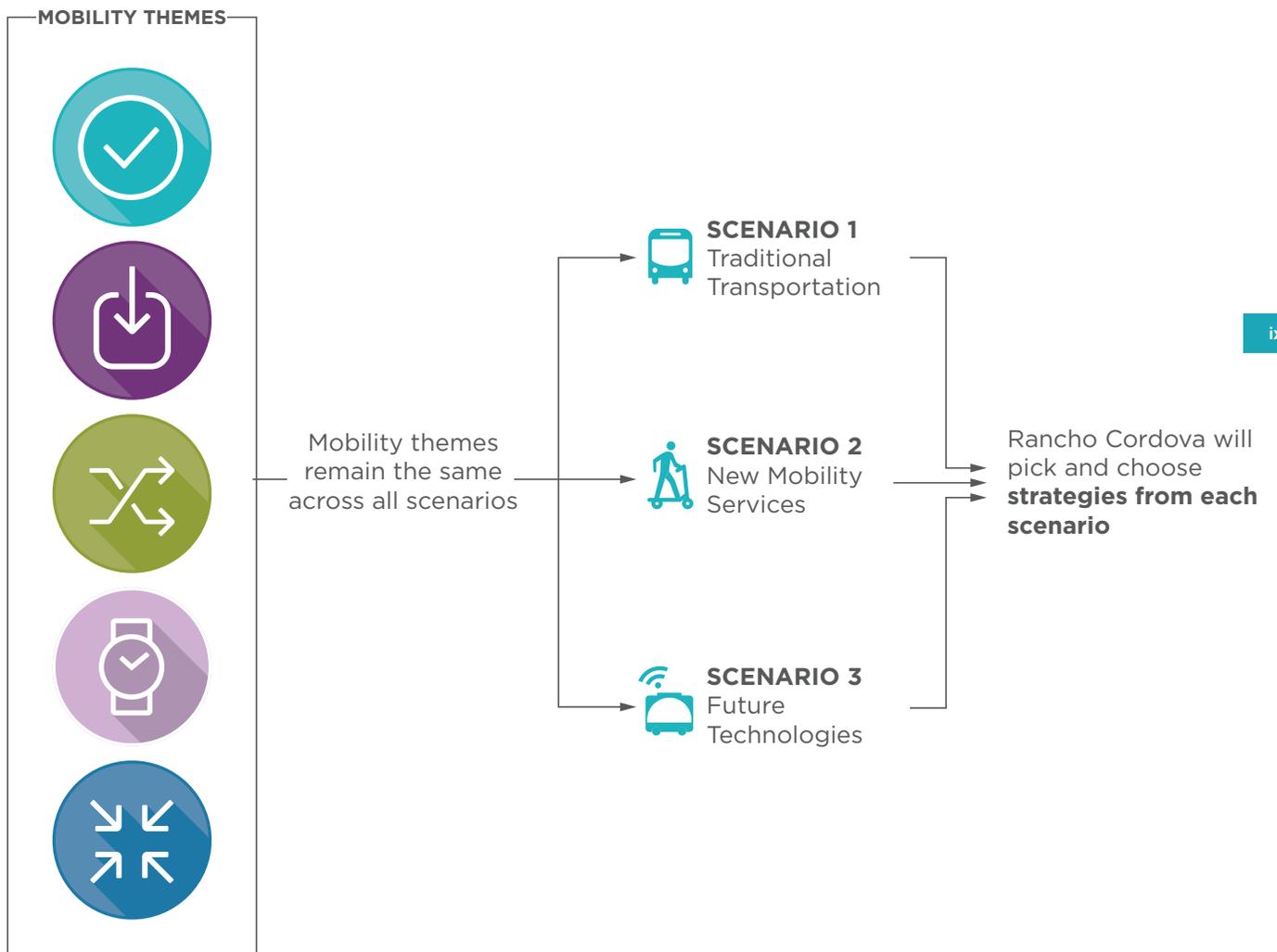
SCENARIO 3 Future Technologies:

Rancho Cordova is quick to adopt future transportation technologies in this scenario. It is unclear which technologies might emerge and what the impact of those technologies might be—this demands local flexibility and innovation. The possibilities are endless—there may be widespread autonomous vehicle ownership, or new long distance travel options that replace rail systems.



Strategies under Scenario 3 may include investments in autonomous vehicles. The American Automobile Association (AAA), conducted an autonomous shuttle pilot in Las Vegas from November 2017 to October 2018.

These scenarios are not exclusive but should be thought of as a menu of options for the City to pick and choose from as they approach an unforeseen future of mobility. Mobility themes remain consistent across each scenario but some mobility themes better serve certain scenarios. For example, some mobility themes (e.g., safe) include strategies applicable to all three scenarios, while others mobility themes (e.g., coordinated) include strategies that fall under one scenario.

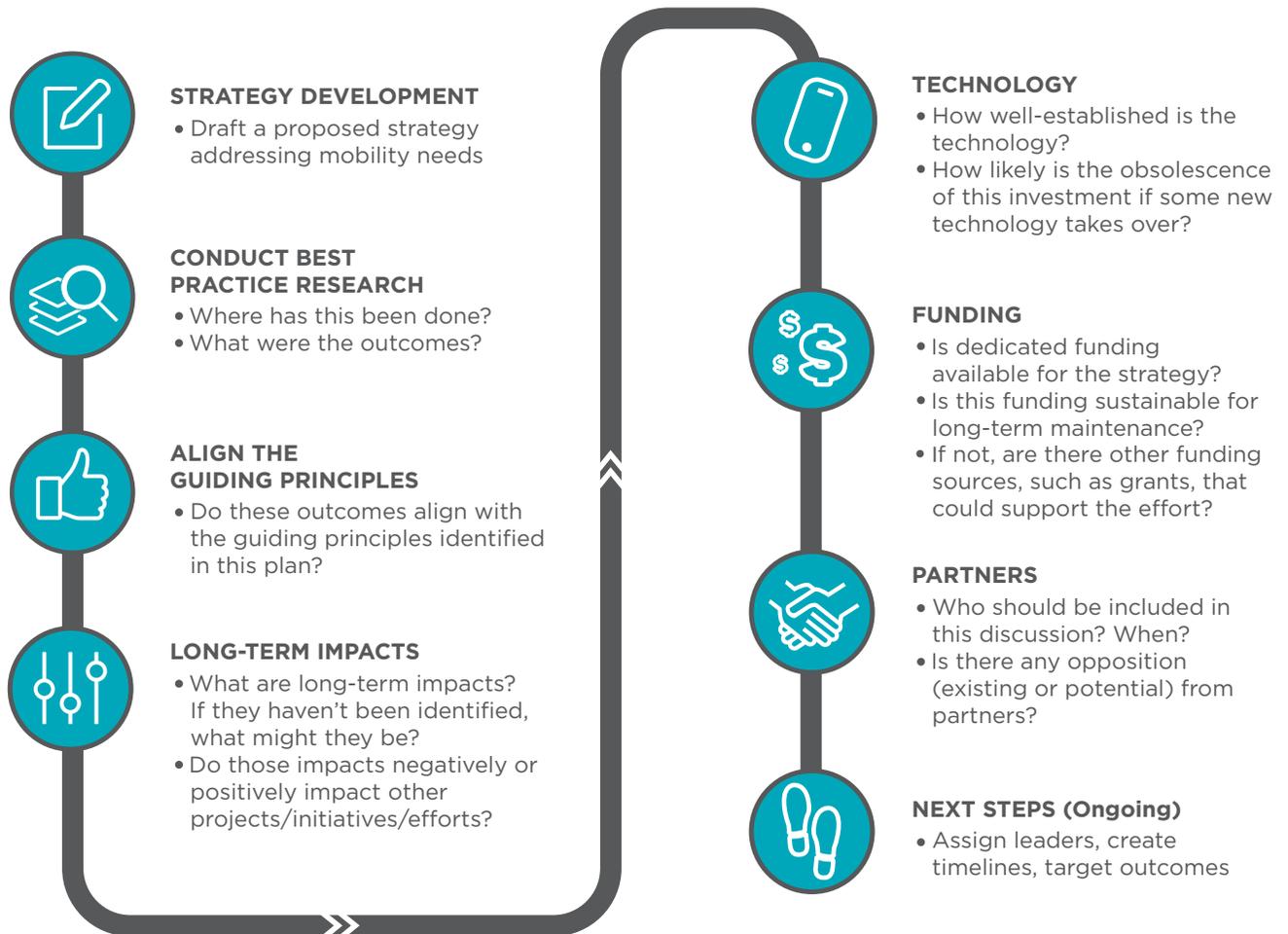


To mitigate risk associated with implementing some of these strategies, it is recommended the City adopt a strategy risk assessment process.

A formal strategy risk assessment process will help improve planning and delivery, prioritize effective solutions to mobility needs, and answer core questions to mobility project investments, such as:

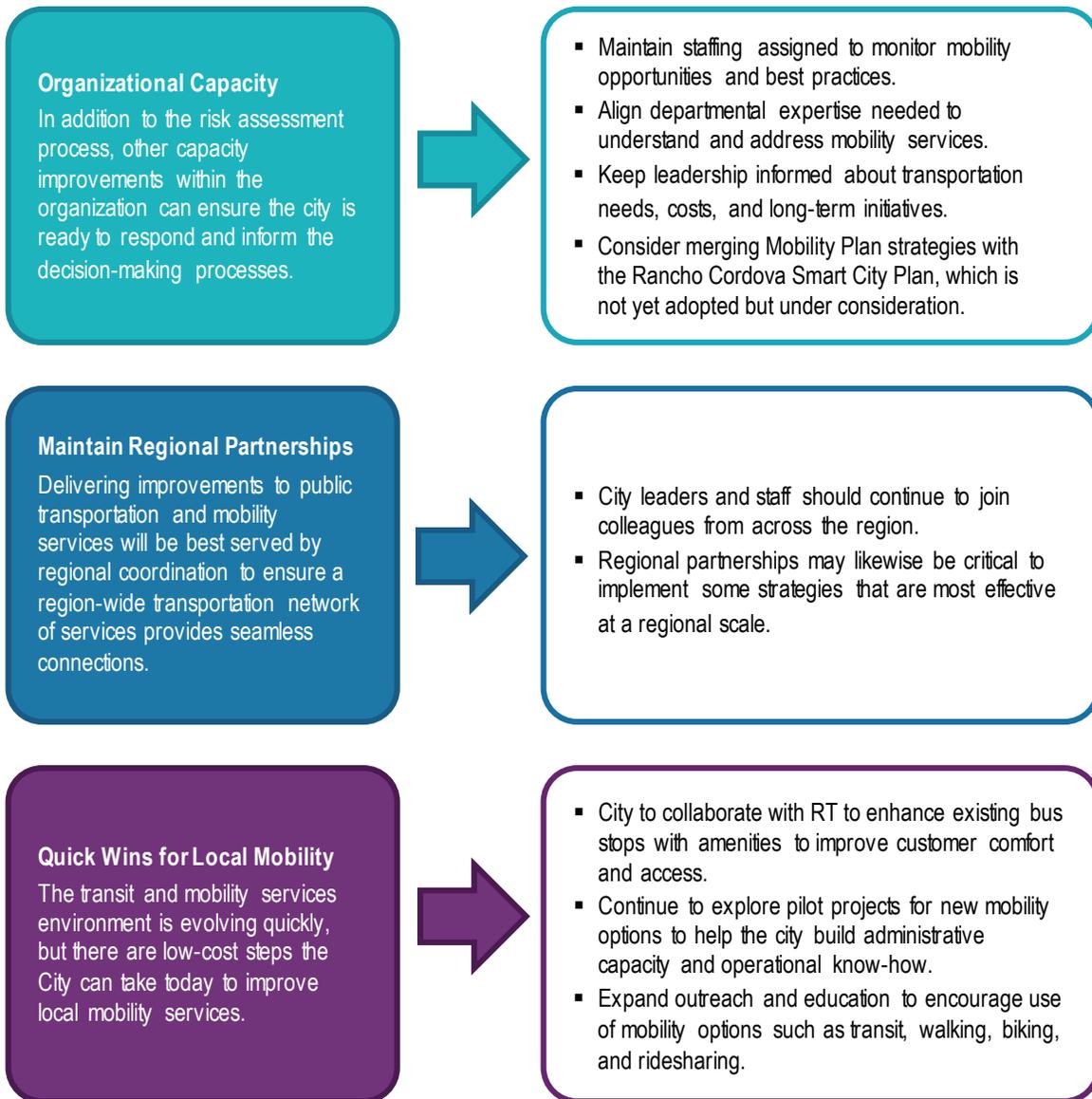
- What do we know? What do we need to know?
- How well does this project further our citywide vision and goals?
- Is this major capital investment at risk of obsolescence due to technological change?

The risk assessment procedure template below describes how the City will identify and arrive at a clear business case for the City’s future investments.



Today, Rancho Cordova is firmly within the Traditional Transportation scenario, with elements of transition into the New Mobility Services scenario.

There are several low risk, and potentially low cost improvements the City can make to increase organizational capacity, maintain regional partnerships, and make quick wins with the existing system.





1

INTRODUCTION

Rancho Cordova's Mobility Master Plan (MMP) provides the City with a long-range vision for public transportation and shared mobility services in Rancho Cordova. Population, jobs, and transportation services have changed dramatically in Rancho Cordova since the adoption of the original Transportation Master Plan (TMP) in 2006. As an update to the 2006 TMP, the 2019 MMP describes how the City will prioritize and leverage resources to provide mobility that best meets the needs of residents, visitors, and employees. In particular, the MMP focuses on how traditional, emerging, and potentially disruptive trends in mobility services might be harnessed to enhance mobility in the city over the next 20 years.

The Plan provides a multimodal approach to mobility—a vision presented in the Rancho Cordova General Plan. The MMP will help guide residents, leaders, and staff to implement transportation strategies that advance a shared community vision. Likewise, the MMP clarifies potential implications of new and emerging mobility options, as technology-driven transportation solutions continue to come to market.

Chapter 2, Mobility Themes, introduces the five key themes this Plan is organized around, potential future mobility scenarios, and current trends that influenced the mobility themes.

Chapters 3-7 each describe a mobility theme (safe, coordinated, responsive, efficient, and flexible), highlight relevant findings from public outreach, and explain recommended strategies included under each theme.

Chapter 8, Implementation Plan, outlines a risk assessment process and describes potential funding sources for implementing the recommended strategies outlined in Chapter 3 through 7.

Strategies in chapters 3-8 include potential capital costs using an order-of-magnitude cost scale, to give a general sense of needed investment:

\$ = Less than \$100,000

\$\$ = \$100,000 - \$250,000

\$\$\$ = \$250,000 - \$500,000

\$\$\$\$ = \$500,000 - \$1 million

\$\$\$\$\$ = More than \$1 million

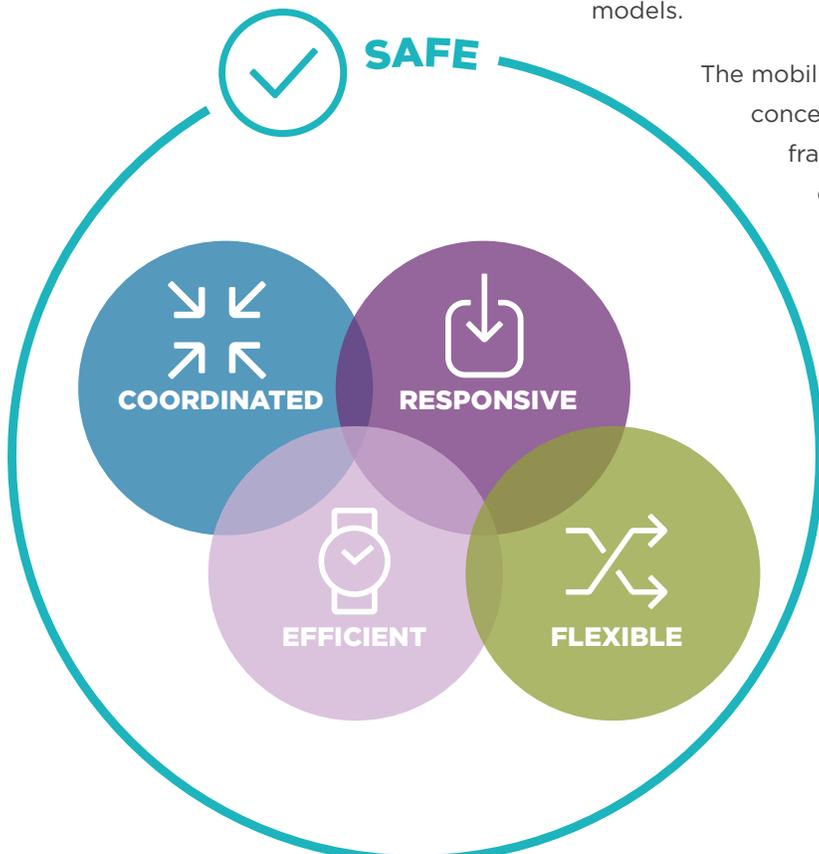


2

MOBILITY THEMES

Ranch Cordova's MMP is organized around five key mobility themes:

- **Safe:** Improve safety for all mobility options. This theme is integrated with and essential to all themes.
- **Coordinated:** Provide a variety of interconnected mobility options for residents and employees.
- **Responsive:** Provide a mix of land uses that support the community's socioeconomic needs and are adaptable to a greater a variety of mobility options.
- **Efficient:** Maximize the use of existing infrastructure, programs, and policies.
- **Flexible:** Leverage new mobility technologies and service models.



The mobility themes are intertwined, closely related concepts to provide a clear yet flexible planning framework. For example, **safe** is an essential component of all mobility options.

Coordinated and integrated transportation provides options supporting an **efficient** system: reducing unneeded redundancies and building up responsive, adaptive resources available city-wide. The strategies included in Chapters 3 through 7 could be categorized under several themes but are summarized under a single theme for clarity.

PUBLIC TRANSPORTATION TRENDS

In addition to these themes, current trends in public transportation, shared mobility and technology indicate several possible future scenarios for Rancho Cordova, with little certainty in any one direction.



SCENARIO 1 Traditional Transportation:

Rancho Cordova is focused on investments in traditional fixed-route transit services (e.g., bus and light rail) and works with SacRT or other traditional transit service providers to improve transit.



Source: Flickr Creative Commons, user paulkimo9

Strategies under Scenario 1 may include enhancements to existing transportation infrastructure, such as Sunrise Gold Line Station in Rancho Cordova.



SCENARIO 2
New Mobility Services:

Rancho Cordova is focused on new or emerging mobility (e.g., ride-hailing, car and bike share, dynamic transit) that support human drivers, leading to a moderate adoption of future transportation technologies. Strategies in this scenario tend to be medium-term investments given both the level of investment, coordination effort, and the pace at which some strategies are evolving. These same factors could mean that the City realizes some opportunities in the near-term.



Source: SacRT

Strategies under Scenario 2 may include investments in new and emerging mobility such as Sacramento Regional Transit District’s (SacRT) dynamic transit service, Smart Ride.



SCENARIO 3
Future Technologies:

Rancho Cordova is quick to adopt future transportation technologies in this scenario. It is unclear which technologies might emerge and what the impact of those technologies might be—this demands local flexibility and innovation. The possibilities are endless—there may be widespread autonomous vehicle ownership, or new long distance travel options that replace rail systems.



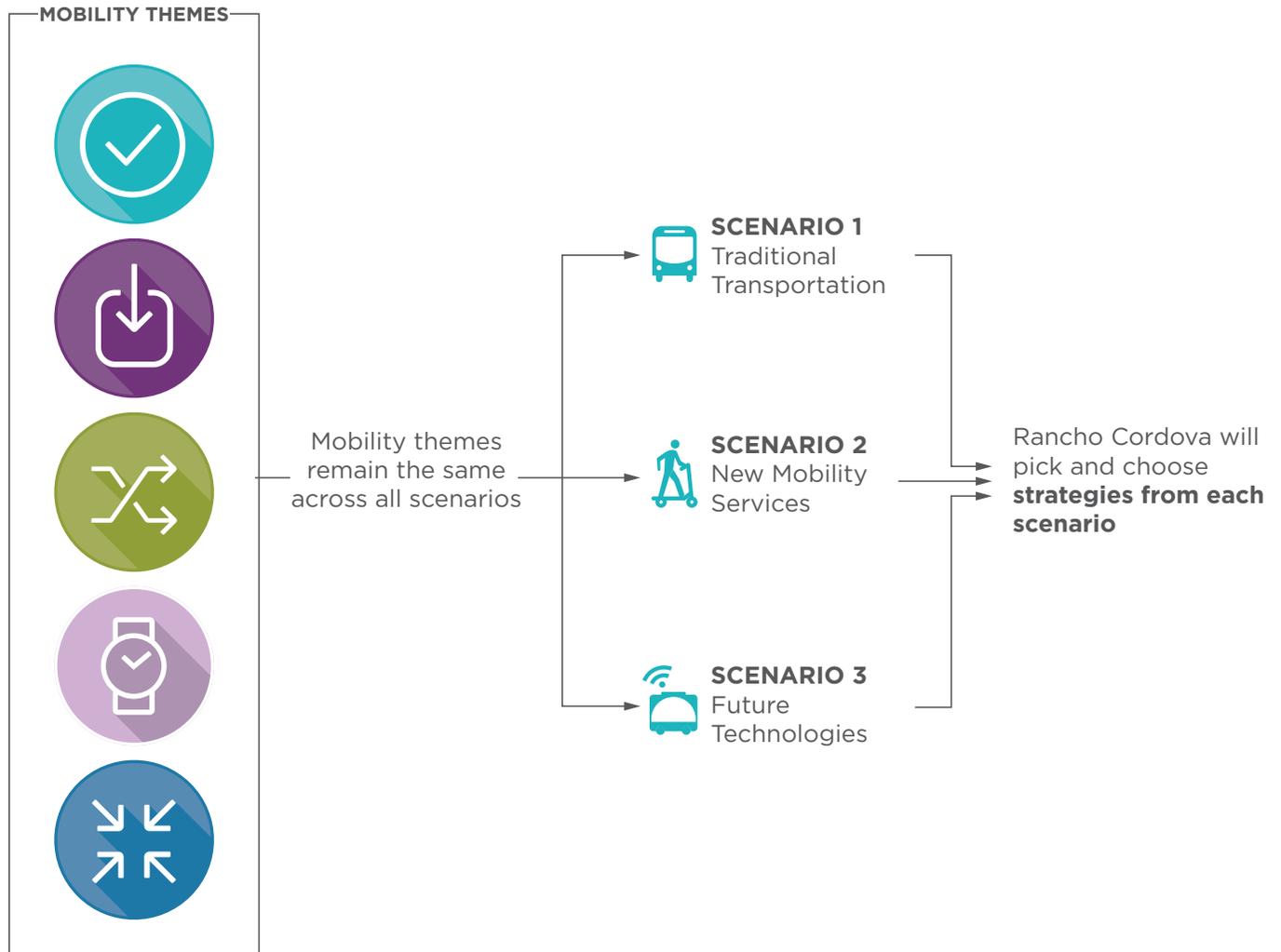
Source: City of Las Vegas

Strategies under Scenario 3 may include investments in autonomous vehicles. The American Automobile Association (AAA), conducted an autonomous shuttle pilot in Las Vegas from November 2017 to October 2018.

Scenario planning allows the City to consider a variety of ways the future may unfold and how they can effectively respond and adapt to the future that becomes a reality. These scenarios are not necessarily chronological nor exclusive but should be thought of as a means for the City to consider mobility options presented by each of the themes as they approach an unforeseen future of mobility. Mobility themes remain consistent across each scenario but some mobility themes better serve certain scenarios. For example, some mobility themes (e.g., safe) include strategies applicable to

all three scenarios, while others mobility themes (e.g., coordinated) include strategies that fall under one scenario. The principle is to ensure that moving along with a particular strategy has staying power as our transportation system evolves. When applicable, strategies under each mobility theme will be organized and described relative to possible futures scenarios where they seem to be the best fit, but many strategies will fit under each scenario. Scenarios are not intended to describe an absolute picture of the future, they are intended to represent a continuum of transportation evolution.

Rancho Cordova Mobility Master Plan Themes and Scenarios Relationship



CURRENT TRENDS

Population, jobs, mobility needs, and services have changed dramatically since Rancho's Cordova's Transit Master Plan, which was adopted in 2006. Several current trends within the City helped shape the five mobility themes of this Plan.

TREND 1

Population and employment are expected to grow.

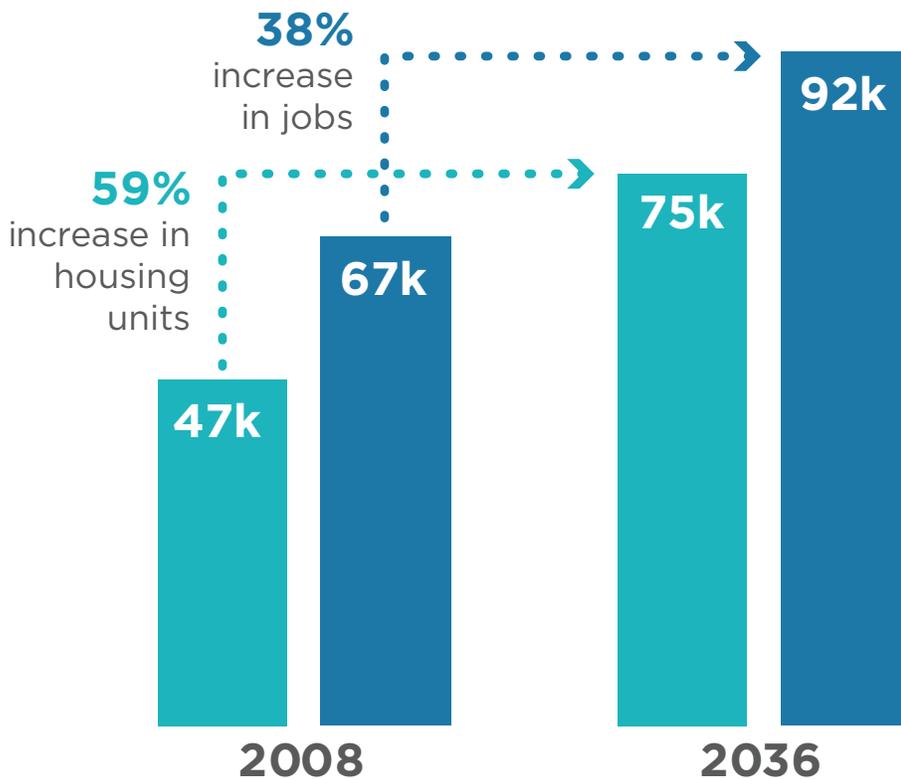
The Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) identified Rancho Cordova as a major employment center and will have a significant increase in the number of jobs and housing units by 2036. Rancho Cordova is expected to add approximately 28,000 new housing units and 25,300 new jobs by 2036.



WHAT ARE THE IMPLICATIONS FOR RANCHO CORDOVA?

With more people moving to more places, safety should continue to be a primary focus for the City's mobility network. Growing populations may lead to additional sprawl or increased density. Transportation will need to be responsive by adapting to this growth while continuing to provide efficient mobility options for Rancho Cordova residents and employees.

Jobs and Households in Rancho Cordova



TREND 2

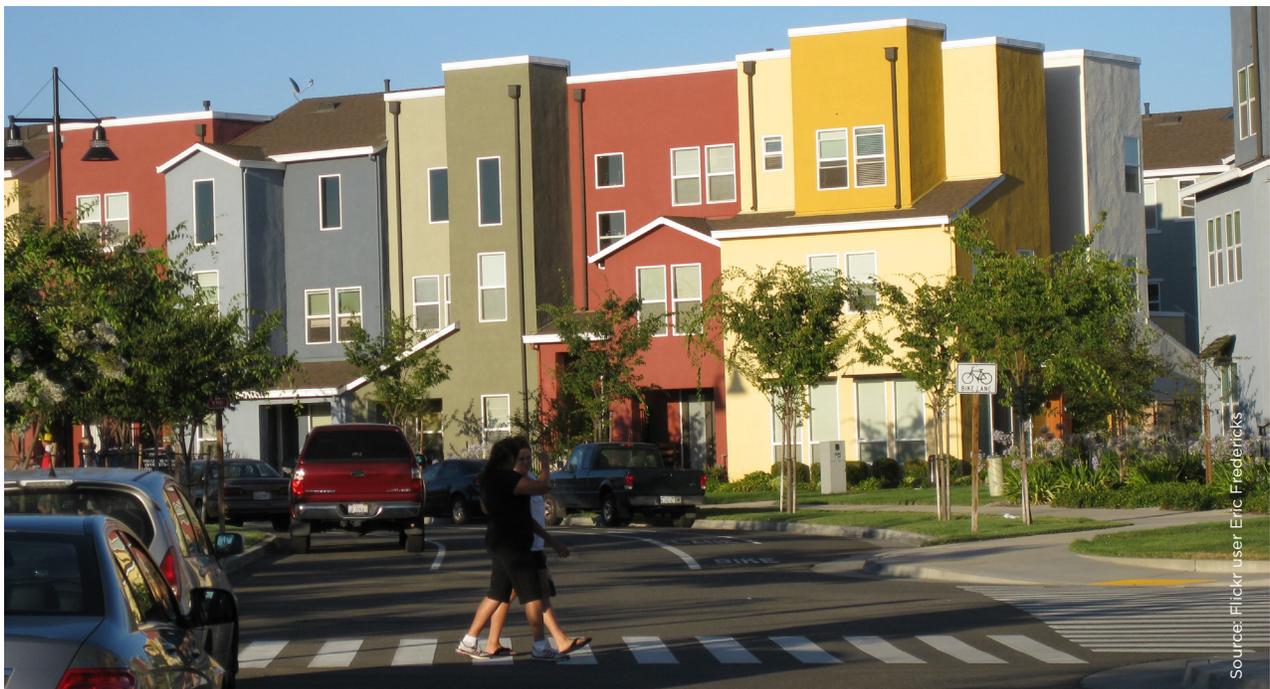
Rancho Cordova is growing and developing.

Rancho Cordova is one of the densest and fastest growing employment and population centers in the Sacramento region. The City has accommodated this rapid growth with new residential development (primarily low- to medium-density), small-scale neighborhood gathering points, and high density commercial employment near light rail stops with ample parking.

Development and growth challenges have made it difficult to connect some parts of the city. For example, Highway 50 divides the city with older development to the north of the highway and newer development to the south. Continuing to support a mix of land use throughout the City will help accommodate a variety of mobility options and help unite the City across these divisions and reduce the need for people to cross the divisions to work, go to school, shop, and play.

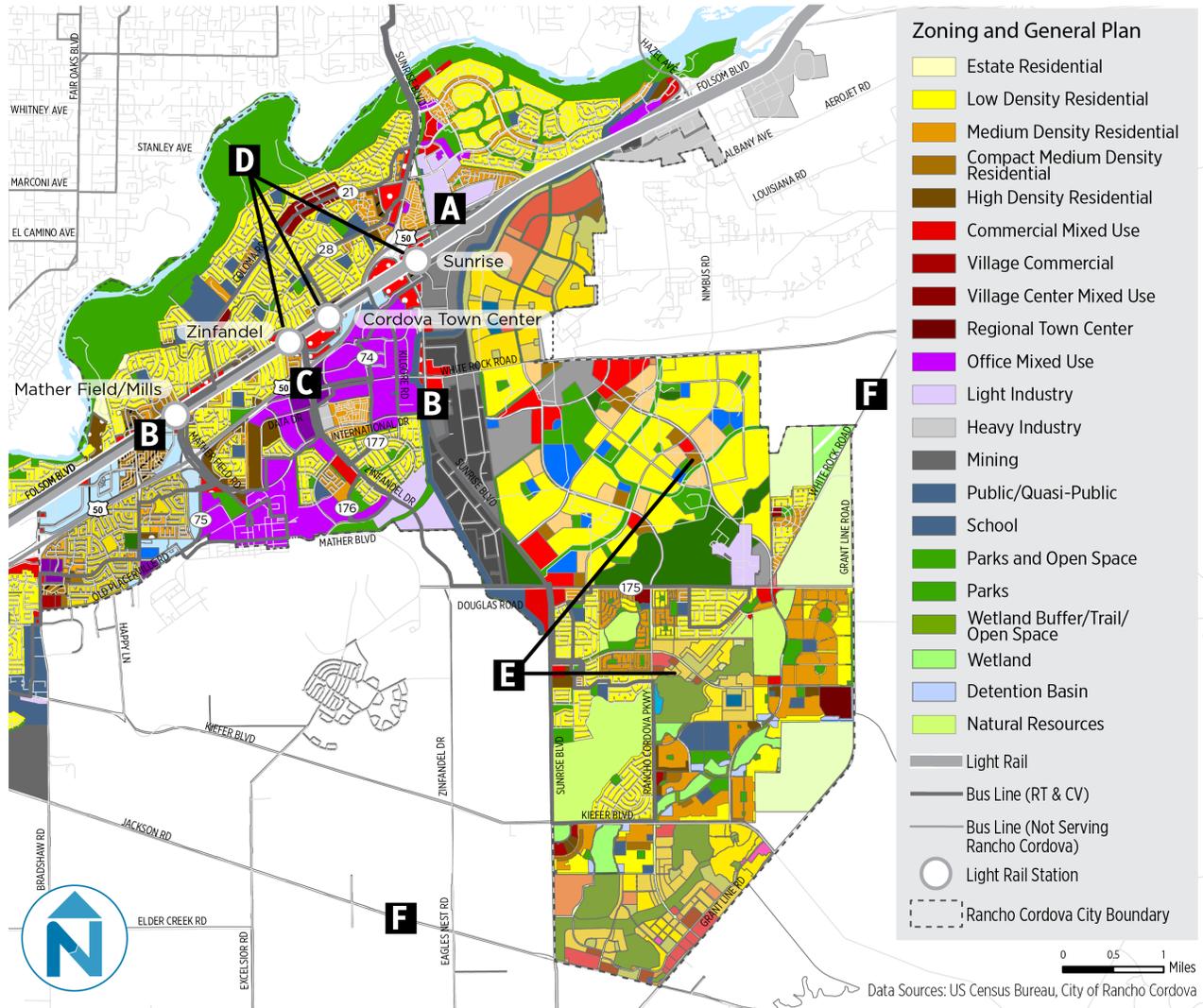
Areas that are zoned for medium residential, high residential, and commercial development have been identified as potential key markets for future mobility options. They include:

- A. North of Folsom Blvd and Hwy 50
- B. Folsom Blvd near the Mather Field Light Rail Station
- C. White Rock Rd through the Business Park between Mather Field and Sunrise Boulevards
- D. Near Zinfandel, Cordova Town Center, and Sunrise Light Rail Stations
- E. Newer neighborhoods in the Rio Del Oro and Suncreek Preserve Planning Areas
- F. Areas outside the city boundaries, along major corridors that connect to Rancho Cordova, such as Jackson Road/Hwy 16 and the Capital SouthEast Connector planned segment on Grant Line Road between Jackson Road/Highway 16 and White Rock Road



Rancho Cordova's Capital Village is a newer, medium- to high-density development south of Highway 50

Key Markets for Future Transit Service



WHAT ARE THE IMPLICATIONS FOR RANCHO CORDOVA?

New planned development in Rancho Cordova will shift peoples' mobility needs. There may be heightened travel demand to and from existing places with increased density or new travel demand to areas of new development in the city. Safe and efficient mobility options will be needed to respond to these land use and development changes.

TREND 3

Transit dependent populations are increasing.

Transit dependent populations, such as zero vehicle households, older adults (65 years or older), and households in poverty are increasing, heightening the demand for mobility options throughout Rancho Cordova. As of 2016:

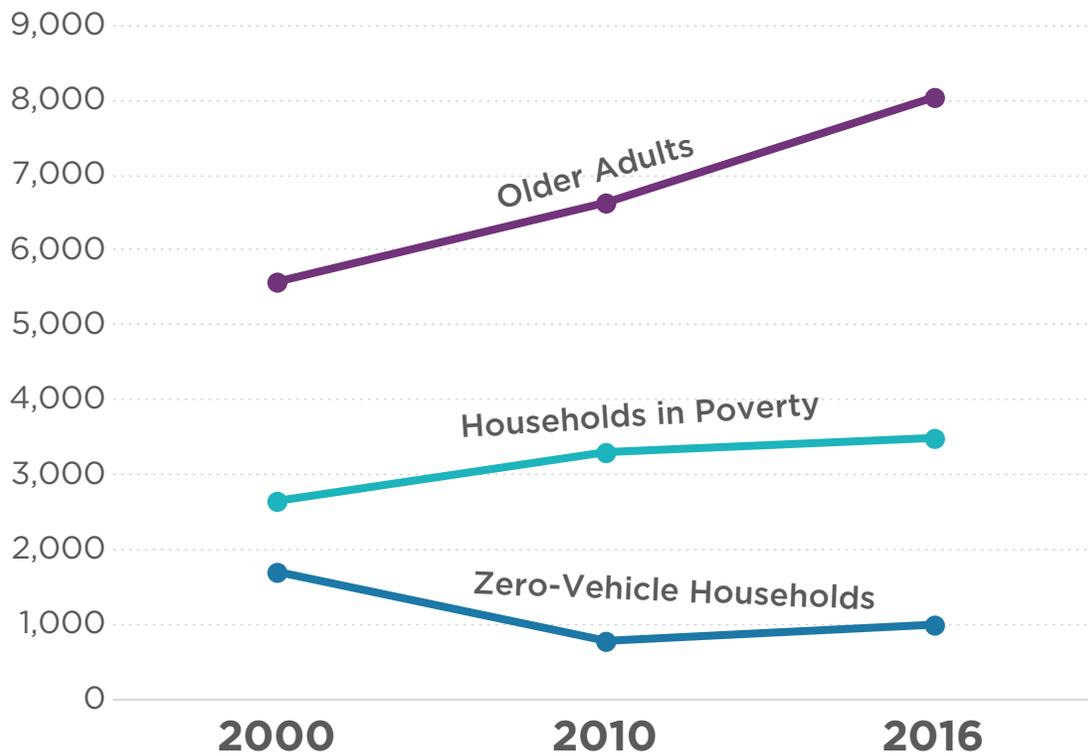
- 1,000 households had zero vehicles—a 30% increase from 2010;
- 3,500 households had a household income below the poverty level—a 6% increase from 2010; and
- 8,000 older adults lived in Rancho Cordova—a 21% increase from 2010.



WHAT ARE THE IMPLICATIONS FOR RANCHO CORDOVA?

Transit dependent populations are more likely to rely on mobility options besides driving alone. Continuing to prioritize automobiles will escalate equity issues. Increases in these populations will heighten demand for the availability of safe and flexible transportation. It's important for the City to continue considering safety and access to opportunity for all.

Transit Dependent Population Trends, 2000–2016



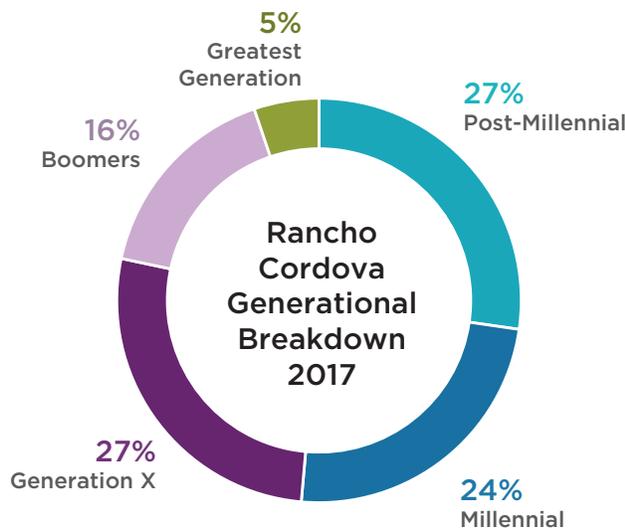
Source: U.S. Census 2000 and 2010, American Community Survey 5-year estimates 2016

TREND 4

Transportation preferences are changing across generations.

Millennials and Post Millennials make up a large percentage of the population, which makes their transportation preferences impactful on the needs of the community overall. Millennials and Post-Millennials tend to take a multimodal approach to transportation, having some flexibility in how they move through the city, and prioritizing in-vehicle communication, along with cost, convenience and time. Earlier generations may rely more on driving personal vehicles for transportation.^{1,2}

Rancho Cordova Population by Generation



Source: ACS 5-year estimates 2017



WHAT ARE THE IMPLICATIONS FOR RANCHO CORDOVA?

Millennials transportation preferences are driving the mobility trends. They want safe options that are coordinated, flexible, and efficient and allow them to be multimodal. This trend has been given a name that is likely to blend into the background in the future, but today is often referred to as “Mobility as a Service” (MaaS). These trends could shift over the decades as the Post-Millennial Generation ages, but may remain fairly unchanged if Post-Millennials continue to prefer mobility options that encourage a shared economy and are presented as a singular service.

As the Post-Millennial Generation ages, these trends may shift. Early predictions suggest, however, that Post-Millennials will continue to embrace the “sharing economy,” such as bike share, car share, or shared rides to a greater degree than Millennials.^{3, 4}

Age breaks provided by the American Community Survey (ACS) do not align exactly with typical age cohort definitions⁵ used to describe generations. The table below shows a crosswalk from the Pew Research Center generations to ACS data.

Birth Years by Generation

Generation	Defined by Pew Research Center		Defined for this Mobility Plan		
	Birth Years	Age in 2018	ACS Age Breaks Included		Birth Years
Post-millennial	1997 to 2012	6 to 21	• Under 5 • 5 to 9	• 10 to 14 • 15 to 19	1998 to 2017
Millennials	1981 to 1996	22 to 37	• 20 to 24	• 25 to 34	1983 to 1997
Generation X	1965 to 1980	38 to 53	• 35 to 44	• 45 to 54	1963 to 1982
Boomers	1946 to 1964	54 to 72	• 55 to 59 • 60 to 64	• 65 to 74	1943 to 1962
Greatest Generation	1928 to 1945	73 to 90	• 75 to 84	• 85 and over	1932 or earlier to 1942

Source: Pew Research Center, ACS 5-year estimates 2017

TREND 5

Demand for regional connections is increasing.

A large portion of Rancho Cordova’s workforce (58,000) travel in from surrounding cities. About half that many workers (26,000) live in Rancho Cordova and travel outside the city for work. On a daily basis the population swells by 26,000 people, growing the population daily to nearly 100,000. Future predictions of settlement and employment patterns indicate regional commuters will continue to be an important and critical market to serve and plan for.

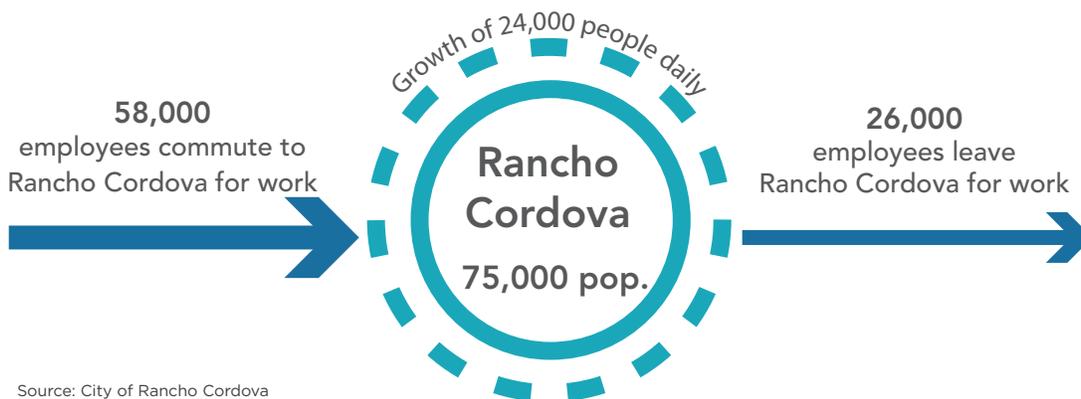


WHAT ARE THE IMPLICATIONS FOR RANCHO CORDOVA?

This travel demand indicates a need for a transportation system that provides a variety of flexible and coordinated mobility options that are safe and efficient for all residents and employees traveling to, from, and within Rancho Cordova.

From the perspective of livability and transportation options accommodating the needs of people who are not Rancho Cordova residents is a major strategic consideration for the city.

Rancho Cordova Work Flow



Source: City of Rancho Cordova

TREND 6

The existing transit and active transportation network can enhance mobility.

Existing transit service within Rancho Cordova is shown on the maps below. Missing transit connections across Folsom Boulevard and Highway 50, and CordoVan service that is limited to AM and PM commutes may be discouraging transit use.

Both the Bicycle and Pedestrian Master Plans also highlight network gaps as a key issue that Rancho Cordova should address. Relevant needs identified in these plans are shown on the next page.



WHAT ARE THE IMPLICATIONS FOR RANCHO CORDOVA?

A more well-connected transportation network may include additional infrastructure that makes pedestrians and bicyclists feel safe, coordinated transportation options that encourage multimodal connections, or mobility options that are responsive to a mix of land uses.

TREND 6 Continued

Bicycle Master Plan

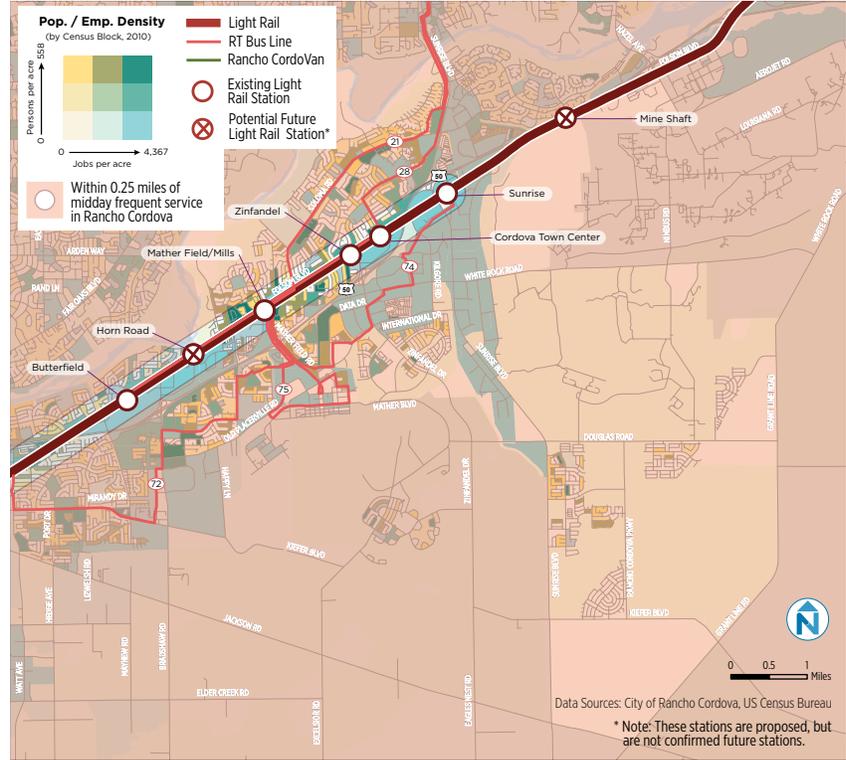
- An expanded on-street bikeway network.
- Additional bicycle parking including, long-term parking options at light rail stations.
- Improved access across Highway 50.

Pedestrian Master Plan

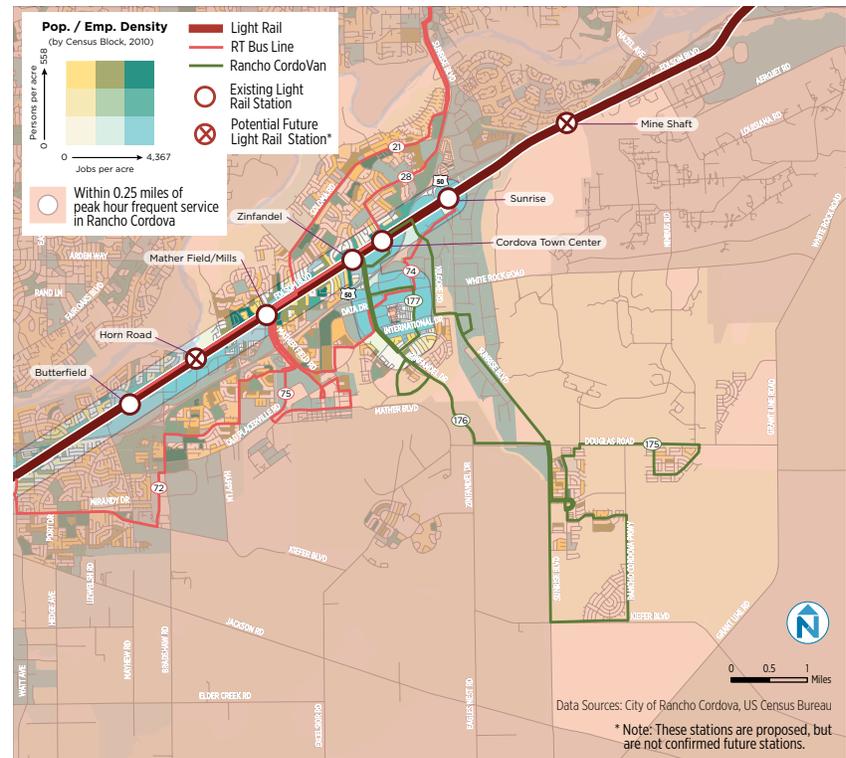
- Grade-separated crossings, particularly to cross Highway 50 and the Folsom South Canal.
- Closed sidewalk gaps and improve substandard sidewalks.
- Developments with a mix of land uses that promote walking.
- Additional public transportation options to help extend pedestrian walking trips.

Many areas of Rancho Cordova have limited access to frequent transit service (every 15 minutes or less). During midday, only the light rail operates frequently. During the morning and evening peaks, the Cordovan provides frequent service around Zinfandel and Prospect Park Drive. A quarter mile is a typical distance to walk to transit. The maps show that only a small portion of the city has access to convenient, frequent transit.

Rancho Cordova Midday Public Transportation Service



Rancho Cordova Peak Hour Public Transportation Service





3

SAFE

Improved safety for all mobility options will help propel mode shift to non-drive alone modes.

When it comes to moving people, safety is the most important factor. Rancho Cordova wants to ensure that residents, employees, and visitors feel safe while they are traveling to, from, and within the City.

Safety will be a key consideration as the City grows. Population and employment in Rancho Cordova are expected to continue to grow in future decades. New areas of the City will develop. This growth and development will put more stress on the City's transportation network. Rancho Cordova will need to efficiently and safely move more people to more places.

Safety is a critical piece to encouraging the use of mobility options and reducing congestion.

People in Rancho Cordova want a convenient transportation system that provides safe spaces to walk and bike and connect to public transit. If people do not feel safe walking, riding a bike, sharing a ride, or taking transit, it will likely not be their first choice of transportation. This perceived lack of safety can also lead people to choose other cities to work and live.

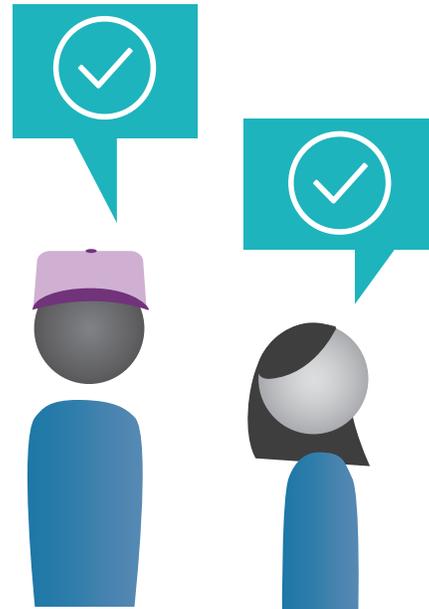


WHAT WE'VE HEARD

Stakeholder interviews indicated that **pedestrian and bicycle activities were broadly viewed as being not as safe** as driving due to perceived lack of facilities.

Similarly, online survey respondents indicated they **do not feel safe walking (29% of survey respondents) or biking (23% of survey respondents) in town.**

When asked about what enhancements could encourage more people to ride public transit in Rancho Cordova more often, **34% of survey respondents selected safe comfortable, and clearly marked transit stops** as the most important.



NEW TECHNOLOGIES

Rancho Cordova will need to review safety considerations of new transportation technologies as they become available. Connected vehicles is one overarching, and system-disrupting transportation technology that can help improve safety for all roadway users.

Connected Vehicles

Connected vehicle technology allows vehicles, infrastructure, and people to communicate with one another via a wireless network. Potential benefits include:

- **Improved safety.** Connected vehicles incorporate a notification system to warn drivers of potential hazards, such as a stopped car, an accident, a car in a blind spot, or a pedestrian crossing the street. These warnings can significantly help reduce collisions.

- **Efficient mobility.** Data generated by connected vehicles can help inform traffic patterns and keep vehicles moving smoothly. This can help improve efficiency of the transportation network and reduce travel times.
- **Decreased air pollution.** When approaching a traffic light, connected vehicles can send a signal to this infrastructure. Adjusting the traffic signal this way can reduce the number of starts and stops, which can reduce emission and decrease air pollution.⁶

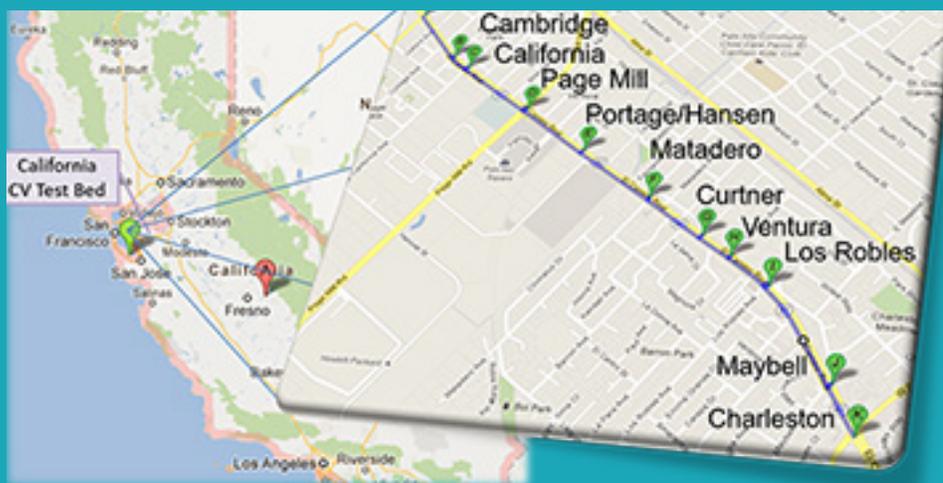
Autonomous vehicles, including shuttles, share many of the same benefits as connected vehicles. See Chapter 7 for more on autonomous vehicles and shuttles.

WHAT'S NEW WITH CONNECTED VEHICLES NEAR RANCHO CORDOVA?

Autonomous Transportation Open Standards Lab (ATOS) is a group of public agencies and private technology companies in Sacramento that are working together to develop protocols and standards for the adoption of connected and autonomous vehicle technology. To support connected vehicles, ATOS is working on deploying a wireless network for power vehicle-to-vehicle (V2V), vehicle-to-infrastructure (V2I), and vehicle-to-pedestrian (V2X) communications.¹

Rancho Cordova has installed four dedicated short range communication (DSRC) units for testing connected vehicles. The City is currently searching for a firm to partner with for a connected vehicle pilot. In the future, the City intends to continue to explore mobility devices and technologies, such as connected and autonomous vehicles, through pilot projects.

Beyond the Sacramento Region, the California Department of Transportation (Caltrans) has partnered with the Metropolitan Transportation Commission (MTC) and the California Partners for Advanced Transportation Technology (PATH) program to create a Connected Vehicle Test Bed in Palo Alto. The Test Bed spans 11 intersections along a two mile portion of State Route 82.² The Test Bed allows Caltrans to understand how connected vehicle technology will perform under real-world conditions and research potential opportunities for improvement with the technology.



1 Autonomous Transportation Open Standards Lab. 2018. Retrieved from <https://sacatos.org/>.

2 Caltrans. Retrieved from <http://www.caconnectedvehicletestbed.org/index.php/>.

STRATEGIES

Strategies that will enhance safety in Rancho Cordova will be applicable across all future scenarios: Scenario 1, Traditional Transportation; Scenario 2, New Mobility Services; and Scenario 3, Future Technologies.

Enhance Bus Stops

Well-designed bus stops can improve the transit rider experience by making people feel more comfortable and safer at transit stops. Enhancements may include:

- Amenities (e.g. benches, shelters, trash cans, restrooms, etc.);
- Passenger information—printed or digital;
- Wayfinding signage; and
- Safety-related features (e.g. lighting, video cameras, open and visible shelters, etc.)

What is the City’s Role?

- Engage Sacramento RT in close partnership to develop local mobility services.
- Inventory and identify enhancement needs at bus stops in Rancho Cordova in coordination with RT..
- Encourage RT to apply for funding to support bus stop enhancements, such as Federal Transit Administration 5339 Bus & Bus Facilities Infrastructure Investment Program.
- Consider what enhancements RT and the City can provide for new rail stations (e.g., the potential Horn Road Station and Mine Shaft Station).

What Capital Investments are Needed?

Capital Investments	Level of Financial Investment
Benches	\$\$
Shelters	\$\$
Trash cans	\$
Lighting	\$
Passenger Information/Signage	\$

Why is this Important?

Bus stop enhancements provide several benefits for transit riders. Amenities make waiting for transit a more comfortable and inviting experience. Clear and simple passenger information that is accessible to a range of transit riders improves rider satisfaction. Wayfinding helps orient people, making it easier to navigate between transit connections and nearby destinations. Safety features improve passenger comfort and support transit ridership.

Mobility hubs are enhanced transit stations serving major transit and other shared mobility services. These may include a range of enhanced amenities such as restrooms and small scale retail. See Chapter 5 for more on mobility hubs.

Connect Bike and Pedestrian Infrastructure

Safe, comfortable, and convenient bicycle and pedestrian connections improve access to transit. Bicycle and pedestrian facilities surrounding transit stops and stations can impact people’s ability and willingness to use transit. Improving these connections may include:

- Wide sidewalks, landscaping, and well-marked crossings for pedestrians;
- A multi-use trail to RT Stations on the American River Parkway;
- Comfortable on-street bicycle facilities that provide convenient access to transit stops and stations; and
- Secure bike parking at transit stops and stations.

What is the City’s Role?

- Support proposed investments outlined in the Pedestrian Master Plan including sidewalk infill and repair, intersection improvements, midblock signalized crossings, walkway upgrades, and lighting improvements. Prioritize investments that will help pedestrians safely connect to public transportation.
- Support proposed projects outlined in the Bicycle Master Plan including new bicycle facilities and infrastructure. Prioritize investments that will help bicyclists safely connect to public transportation.
- Pursue funding opportunities outlined in the Bicycle and Pedestrian Master Plans.
- Consider what bike and pedestrian infrastructure the City can provide at and connecting to new rail stations (i.e., Horn Road Station and Mine Shaft station).
- Create safe pedestrian infrastructure along all major corridors such as Sunrise Boulevard, Zinfandel Drive, and White Rock Road.

What Capital Investments are Needed?

Capital Investments	Level of Financial Investment
Sidewalks	\$\$
Landscaping and lighting	\$
Pedestrian crossings and intersection improvements	\$\$
On-street bike facilities	\$
Off-street bike parking	\$

Why is this Important?

Enhanced pedestrian facilities makes walking to transit more attractive and convenient. Frequent and well-placed crossings also allow pedestrians to easily connect to transit without walking out of their way. Bike facilities that feel safe to a wide range of peoples’ comfort and experience levels helps everyone connect to transit. Secure bike parking at transit stops and stations helps people connect to transit by bike and reduces demand for space on transit vehicles.



Source: Denver Moves: Transit Plan Transit Friendly Streets Guide

Pedestrian-friendly streetscapes with landscaping, marked crossings, and curb ramps in Seattle, WA help provide pedestrian connections to transit.



4

COORDINATED

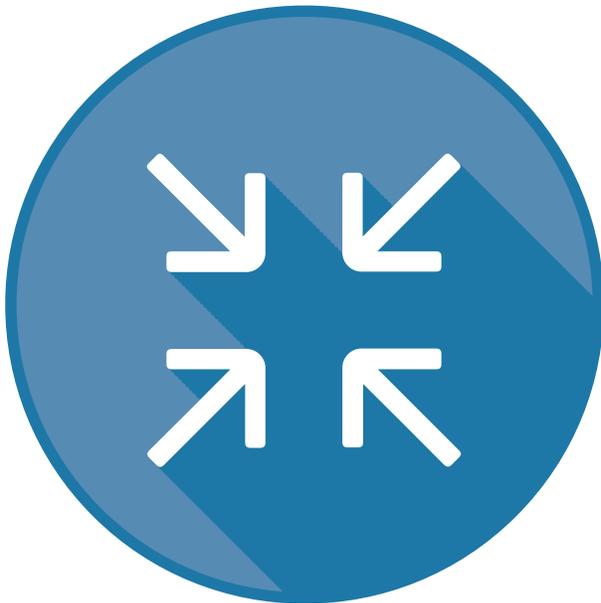
Coordinated mobility options will encourage a multimodal lifestyle for Rancho Cordova residents, employees, and visitors.

Integration and coordination with existing mobility modes will be a key piece of adopting new mobility options as they emerge. As people and cities face new and dynamic mobility options, coordination will be increasingly important to ensure people can conveniently access their transportation choices.

Millennial and post-millennial travel preferences have heightened the need for coordinated mobility options. These generations prefer a multimodal lifestyle that provides more flexibility to meet their changing day to day needs.

A coordinated multimodal system will be challenged by transportation network gaps. The City of Rancho Cordova manages much of the network that connects people to transit, including the streets and sidewalks, and thus plays a critical role in supporting improved coordination of mobility options.

Increasing regional travel demand also requires a coordinated transportation system. A large portion of Rancho Cordova’s workforce travel in from surrounding cities. Housing and job centers will continue to grow and change across the region, making it ever-more important to have flexible and efficient travel choices to, from, and within Rancho Cordova.



WHAT WE'VE HEARD

Stakeholder interviews indicated that **people do not know what transportation services are available or where to find information about their travel options.**

Some stakeholder interviews indicated that **better organization and information about carpools** could reduce the use of single-occupancy vehicles.

According to the online survey respondents, one of the greatest challenges to getting around Rancho Cordova without a car is **limited mobility options (46% of survey respondents).**

NEW TECHNOLOGIES

Dynamic carpooling and car sharing are two mobility options that are becoming more popular among residents and employees. Coordinating carpools in real-time is an emerging commute option for employees. Some residential developments and employers are also adopting car sharing to encourage multimodal travel among residents and employees. Coordinating new mobility technologies is more than just aligning schedules—it will help facilitate connections between modes, providing people with a multimodal transportation network that they can travel through seamlessly.

Several new mobility options, such as dynamic carpooling and car sharing, fall under the category of Mobility as a Service (MaaS)—transportation that is being offered and consumed by customers as a service. New MaaS technologies are emerging that combine several different transportation options under a single platform. Users can plan and pay for a multimodal trip through the platform, which makes coordinating a multimodal trip and maintaining flexibility while on the go much easier. However, these types of platforms have some potential challenges. For example, getting public

agencies to integrate with MaaS platforms can be difficult if there are policy or political barriers. It could also be more challenging to offer fare programs, if users are paying directly through the platform. Some private companies may also be hesitant to integrate with a shared platform. At this time, all the potential implications of MaaS are still unknown but Rancho Cordova may want to consider this technology in the future for helping coordinate mobility options.

Dynamic Carpooling

Dynamic carpooling is a real-time carpooling arrangement, typically made through mobile smartphone applications, that does not require pre-scheduling nor long-term participation commitment. Key elements to a successful program include:

- **Critical mass:** There has to be enough people going relatively close to the same place at the same time to have enough riders and drivers to ensure a successful round trip. Experience has shown that people who fail to be able to arrange a dynamic ride twice are unlikely to re-consider this as a mode of choice. Critical Mass is very important to assure a low failure rate and reasonable adoption rates of the technology.
- **Driving or parking incentives and restrictions:** HOV lanes, priority parking for carpools, and/or restricted or expensive parking incentivize carpooling.
- **Experience with the sharing economy:** Some people are much more open to sharing a car with a stranger than others.

WHAT'S NEW WITH DYNAMIC CARPOOLING NEAR RANCHO CORDOVA?

Waze Carpool, a dynamic carpooling service, operates throughout California. To find a carpool match, commuters download the app, enter their origin, destination, and departure time. Riders have the flexibility to adjust their pick-up time each day to accommodate their schedule. Passengers pay up to \$0.54 per mile for their ride to reimburse the driver. UC Davis encouraged the use of Waze Carpool during summer 2018 with a special promotion. UC Davis passengers rode for free and Waze Carpool covered the driver reimbursement.¹ Rancho Cordova could consider a similar promotion to help increase awareness about the app and promote carpooling.

The 50 Corridor Transportation Management Association (TMA)—which covers Rancho Cordova—has also partnered with Carzac, which provides real-time carpool matches. Users simply enter their commute information (pick-up and drop-off location, schedule, etc.) and are presented with potential carpool matches to choose from. The TMA conducted a promotion with Carzac during October 2018 offering prizes to commuters who tried the new app. Although the promotion ended, Carzac remains an active commute option in the area.²



¹ UC Davis Transportation Services. "Waze Carpool." Retrieved from <http://taps.ucdavis.edu/transportation/waze>.

² 50 Corridor TMA. "Cash In on Carpooling." Retrieved from <https://www.cashinoncarpooling.com/about>

Car Sharing

Car sharing allows people to rent shared vehicles for short periods of time, typically by the hour or minute. Users in traditional station-based car sharing systems, such as Zipcar, are expected to return the car to the same location. One-to-many systems, such as car3go, allow users to return the vehicle to any location within the service area, facilitating one-way trips that better support first-last mile trips to public transportation. Peer-to-peer systems have developed more recently to offer a way for individuals to “rent” their car to other individuals.

WHAT'S NEW WITH CAR SHARING NEAR RANCHO CORDOVA?

In partnership with Electrify America, the City of Sacramento recently launched two new car share services within the City of Sacramento. GIG Car Share launched a “free float” car share service with 260 Toyota Prius Hybrids, allowing users to pick-up and drop-off vehicles anywhere within the designated home zone. Envoy Technologies provides electric car share vehicles at residential properties. Currently, eight residential complexes have Envoy vehicles. Envoy plans to deploy a total of 142 electric vehicles and charging stations at 71 residential properties throughout the Sacramento region—two vehicles at each property.¹ In the future, there may be opportunities to expand these new services to nearby communities like Rancho Cordova.



Source: Gig Car Share

¹ City of Sacramento. “Electrify American and the City of Sacramento Announce New Zero-Emissions Car Sharing Programs, Zero-Emissions Shuttle Bus Routes and Electric Vehicle Charge Infrastructure.” June 13, 2018. Retrieved from <https://www.cityofsacramento.org/Mayor-Council/Districts/Mayor/Press-Releases/2018-06-13-Electrify-America-and-City-Announce-New-Projects>

STRATEGIES

Strategies that will improve coordination and enhance mobility in Rancho Cordova will be applicable in Scenario 1, Traditional Transportation. These service and programmatic strategies would not require any capital investments.

Increase Transit Service Frequency

Frequent transit service is typically defined as service that arrives every 15 minutes or less. SacRT's Gold Line operates at a 15 minute frequency Monday through Friday but the SacRT bus routes that serve Rancho Cordova operate at a frequency of 30 or 60 minutes.

What is the City's Role?

- Work with RT to increase the frequency on SacRT transit routes within Rancho Cordova (Routes 21, 28, 72, 74, 75).
- Follow-up with RT about the outcomes and implications of their Route Optimization Study.

Why is this Important?

Increased transit frequency can help improve service reliability and encourage the use of transit. Transit riders can have more flexibility with their schedule because when they arrive at the bus stops, they know the next bus isn't far behind.



Source: SacRT

Improve CordoVan Service

Three CordoVan routes are operated by SacRT and provide peak-hour connections between Rancho Cordova housing and employment centers, and the Zinfandel Gold Line Station.

- **Rancho CordoVan Route 175** connects Zinfandel Station, the Anatolia Clubhouse, and Sunridge Park. This route operates three runs between 6 and 9 a.m. and four runs between 3 and 7 p.m.
- **Rancho CordoVan Route 176** operates between Zinfandel Station, Anatolia Clubhouse, and Kavala Ranch with three runs in the morning between 6 and 9 a.m. and four runs in the afternoon/evening between 3:30 and 7:30 p.m.
- **Rancho CordoVan Route 177** connects Zinfandel Station and Baroque Drive. This route operates in a loop with 14 runs between 6 and 9:30 a.m. and 15 runs between 3:30 to 7 p.m.

These CordoVan routes serve the “new” areas in Rancho Cordova—the properties located south of Route 50. The residents and businesses in the new area contribute to a local transportation tax that funds the CordoVan and transportation demand management services available to residents and employees in the City.

Performance of CordoVan Routes 175, 176, 177 is shown below. Route 177 exceeds all measure targets while Routes 175 and 176 fall short of each target.

Rancho Cordova Performance

Performance Measure	Route 175	Route 176	Route 177	Target
As identified by SacRT	3.2	4.7	12.9	8.06
Passengers per Revenue Mile	0.2	0.3	0.9	0.56
Operating cost per passenger	\$45.47	\$31.26	\$11.38	\$21.45

Sources: City of Rancho Cordova Monthly Reports (Routes 175, 176, 177); Sacramento Regional Transit District’s 2017 Quarter 2 Performance Report, and September 2017 Ridership Report.

What is the City’s Role?

- Consider modifying Route 177 as a bidirectional service rather than a loop to help increase frequency, improve reliability, and increase ridership.
- Consider modifying fixed route CordoVan service to dynamic transit. Consider smart-phone enabled scheduling applications.

Why is this Important?

Service changes to each CordoVan route can help improve performance of the service.



Source: Rancho Cordova

A CordoVan vehicle in Rancho Cordova.

Develop TDM Programming

Changes in service and capital investments are only part of what is needed to achieve Rancho Cordova’s vision for transportation. Transportation demand management programs and policies help improve awareness and understanding of the transportation services available and encourage people to use public transportation.

Transportation demand management (TDM) promotes programs and policies that support the use of travel options (i.e., walking, biking, riding transit, ridesharing) or reduce travel demand (i.e., telecommuting, flexible work schedule).

The City - and partners - may also consider first/last mile employment center shuttles, including electric and autonomous technology.

What is the City’s Role?

Work with the 50 Corridor TMA to expand the TDM program in Rancho Cordova, such as education and outreach efforts, an employer/commuter program, a Guaranteed Ride Home program, and financial incentives to use transit, transportation network companies, and bike share programs.

Why is this Important?

The 50 Corridor TMA manages TDM programming in Rancho Cordova. However, the organization’s status and availability has changed based on regional priorities. The City can consider taking on some TMA responsibilities, as needed, to promote the use of mobility options and the benefits of capital investments. Support from the City in the form of education, outreach, or incentives can help increase awareness and use of new mobility options, such as dynamic carpooling. This requires more commitment in terms of staff resources and funds from the City in coordination with the TMA.

Regardless of the organizational structure, successfully implementing will require close partnership with large employers.

Explore Pilot Projects

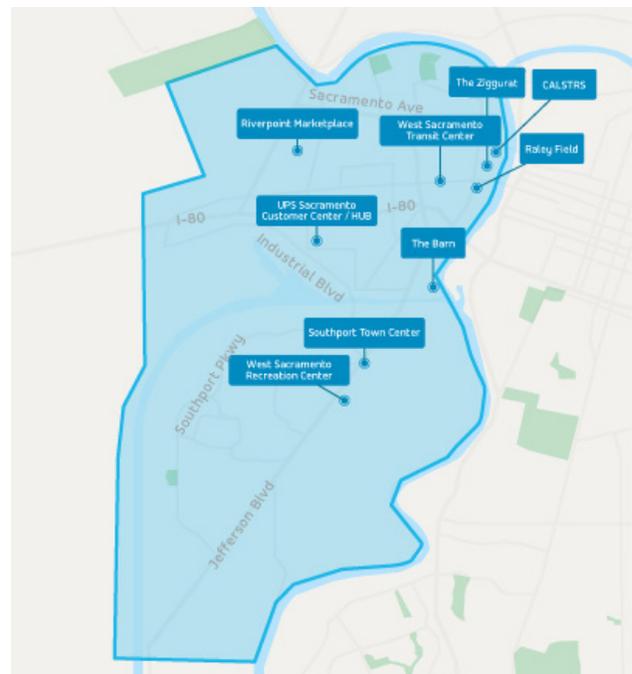
Pilot projects give the city a way to plan, develop, and try out mobility services, such as TNC subsidies, bike or scooter sharing, or transit services. The City is exploring a bike and scooter share program with Gotcha Group and may launch a pilot in 2019.

What is the City’s Role?

Reach out to neighboring cities (i.e. West Sacramento, Sacramento, etc.) to discuss lessons learned and opportunities for collaboration.

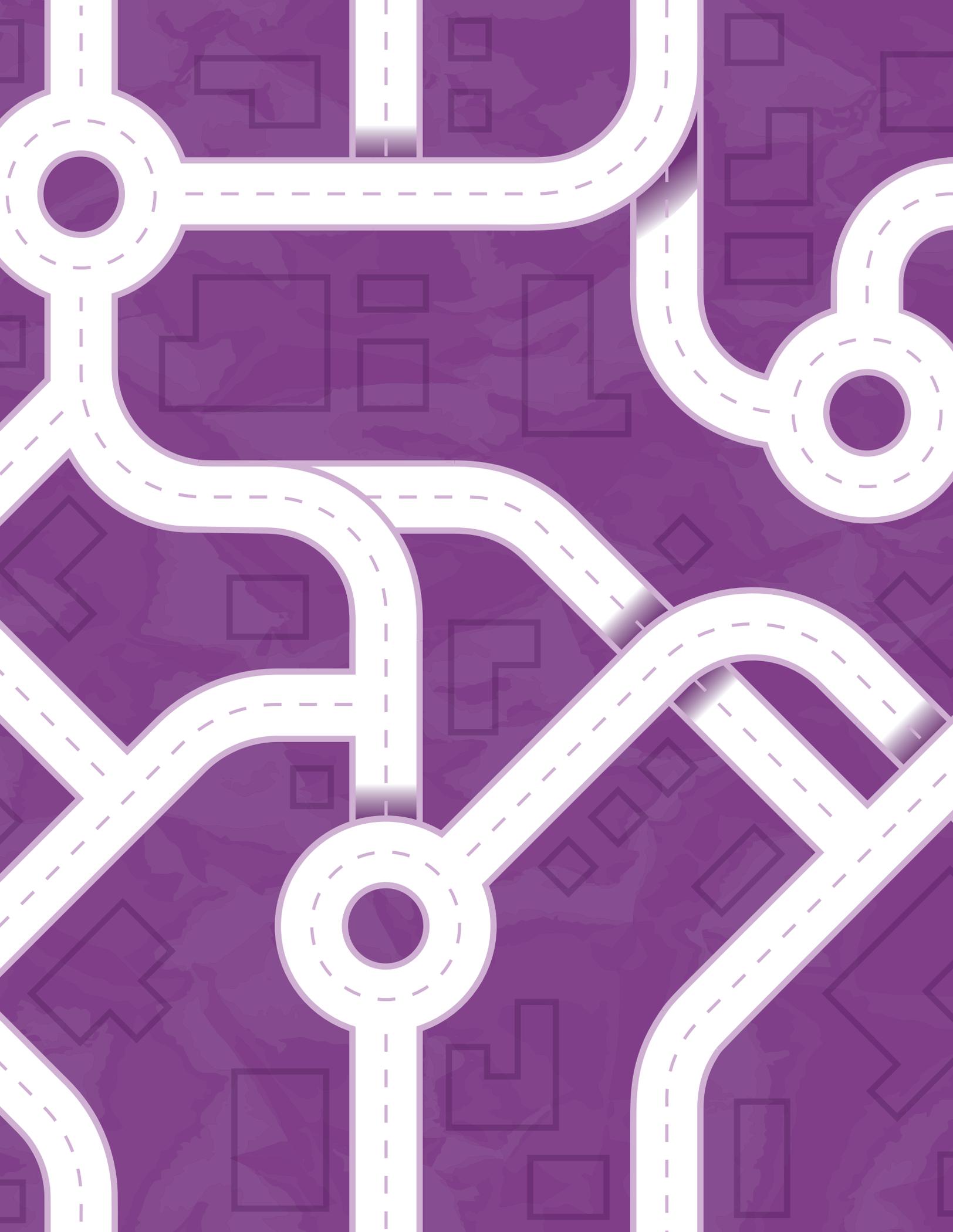
Why is this Important?

Pilot projects are a great way to test a new service or technology. If a temporary pilot is successful, the transition to permanent implementation can be fairly seamless. If a pilot is unsuccessful, the city has gained valuable experience, and can explore other options.



Source: City of West Sacramento

West Sacramento is conducting a yearlong pilot project with Via for dynamic transit for travel anywhere within the City.



5

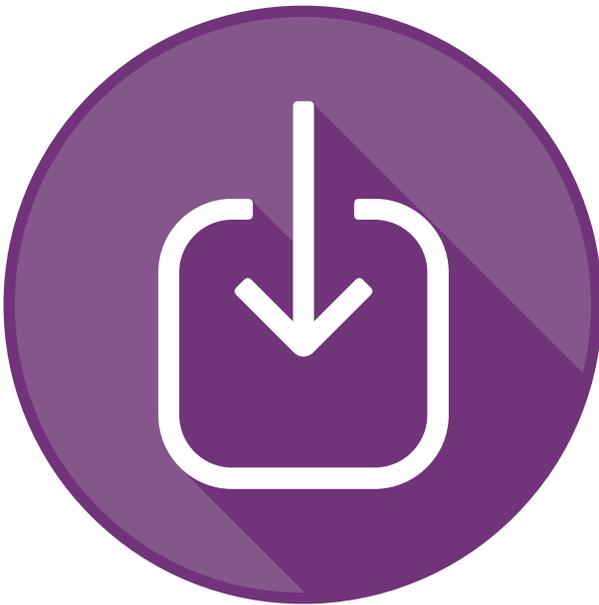
RESPONSIVE

Provide a mix of land uses that support the community’s socioeconomic needs and are adaptable to a greater variety of mobility options.

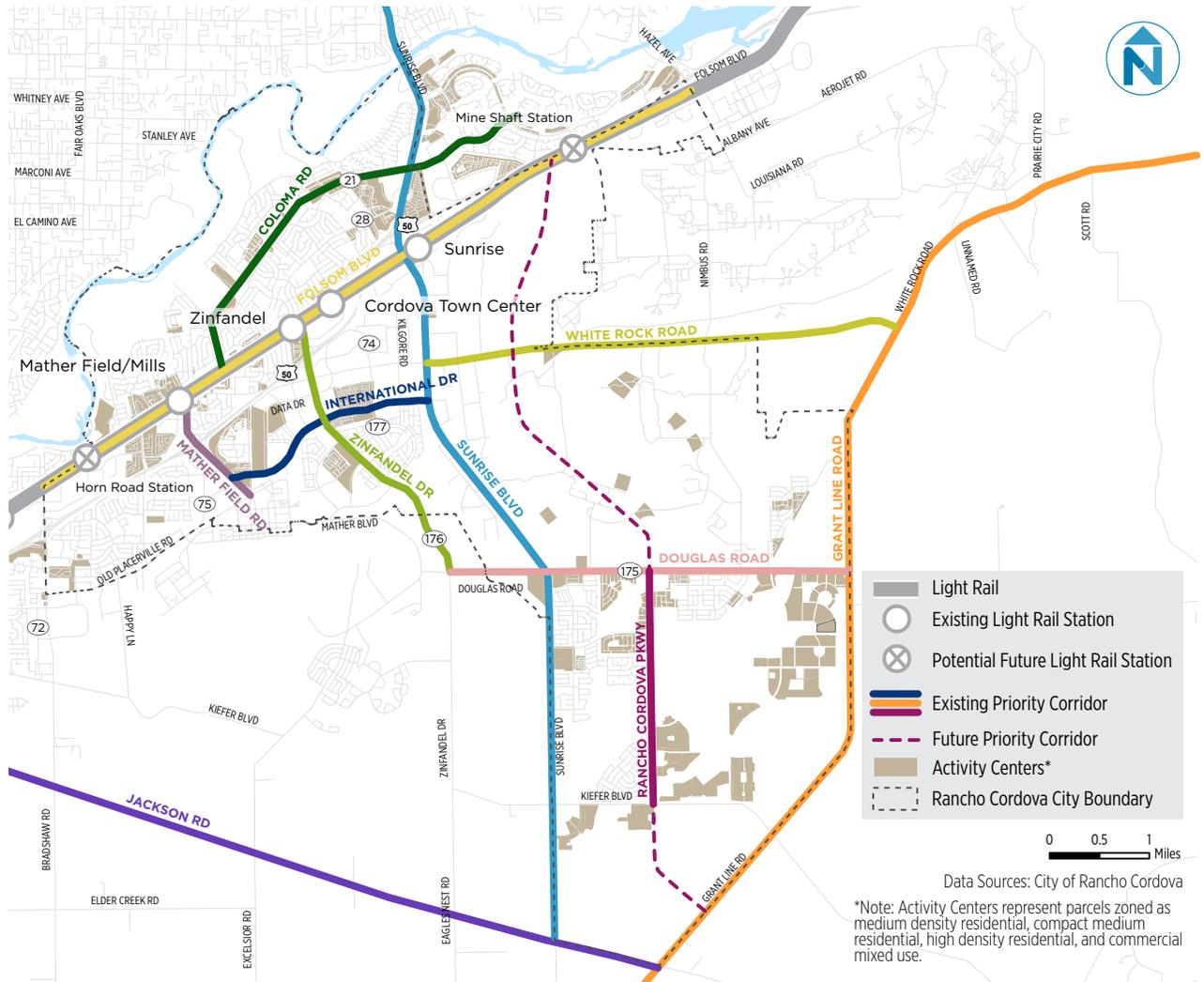
Transportation needs tend to follow land use patterns and adapt to the built environment. The built environment in Rancho Cordova will change slowly but how people desire to access that built environment will change more quickly. Some land use patterns, particularly those that provide a mix of uses, are more flexible and are adaptable to a greater a variety of mobility options.

Existing land uses and the current transportation system encourages single occupancy vehicle (SOV) travel because other mobility options are perceived by people to be less convenient, more costly, or not as safe. The built environment is unlikely to change rapidly but there is still opportunity to shift these perceptions through adjustments to the transportation system coupled with strong education and outreach. These are important considerations for Rancho Cordova moving forward.

Potential key markets for the Mobility Plan were identified in Chapter 2. These include higher density areas, such as areas zoned for medium residential, high residential, and commercial development. Based on these markets, eight priority corridors were identified as critical transportation connections for people traveling within the city and to neighboring communities that should be prioritized for large scale mobility investments.



Rancho Cordova Priority Corridors



The eight priority corridors are:

- **Sunrise Boulevard:** Jackson Highway to Madison Avenue in Citrus Heights
- **Zinfandel Drive:** Folsom Boulevard to Douglas Road
- **Douglas Road:** Zinfandel Drive to Grant Line Road
- **Folsom Boulevard:** Bradshaw Road to Nimbus Road (along the Gold Line route)
- **International Drive:** Mather Field Road to Sunrise Boulevard
- **White Rock Road:** Sunrise Boulevard to Grant Line Road
- **Coloma Road:** Folsom Boulevard to Gold Country Boulevard
- **Mather Field Road:** Folsom Boulevard to Peter A McCuen Blvd
- **Jackson Road:** Grant Line Road to S Watt Avenue
- **Rancho Cordova Parkway:** Grant Line Road to Highway 50
- **Capital SouthEast Connector Project:** Interstate 5 to Highway 50 via Kammerer Road, Grant Line Road, and White Rock Road

These corridors connect areas throughout the City that are zoned for medium residential, high residential, or commercial development. Senate Bill 743 influence development on these corridors, but will not shift their priority for the City. Moving forward, care needs to be taken in ensuring that the design of these corridors support multi-modal choices.

WHAT WE'VE HEARD

Stakeholder interviews acknowledged that **parking is easy and inexpensive**, which keeps driving your own car as the most convenient and affordable option.

People noted that **riding transit can be too hard to understand, time consuming, and hard to access** when compared to driving.

For some, **existing pedestrian connections from transit to major activity centers are perceived to be a threat to personal safety**. Many forms of mobility have significant dependence on a well-developed and perceived as “safe” pedestrian environment.

City Council indicated that **mobility decisions will impact land use**, and vice versa. Comments recognized that it will always be difficult to efficiently and frequently serve low density neighborhoods with public transit, and that multiple transportation options should be a consideration for new development areas.

Online survey respondents identified **traffic congestion near Hwy 50 as one of the greatest challenges to getting around Rancho Cordova (62% of survey respondents)**.

When asked about what enhancements could encourage more people to ride public transit in Rancho Cordova more often, **39% of survey respondents selected transit stops closer to where people live or want to go** as the most important.

NEW TECHNOLOGIES

Development within Rancho Cordova has been designed over the decades to facilitate personal car use, with ample free parking. New shared mobility technologies, such as ride-hailing services and dynamic transit, have the potential to shift user preferences and contribute to reduced parking demand. Unlike driving your personal vehicle, shared mobility options do not require the availability of parking at your origin or destination, which can cause space dedicated to parking to be underutilized.

Ride-Hailing and Taxis

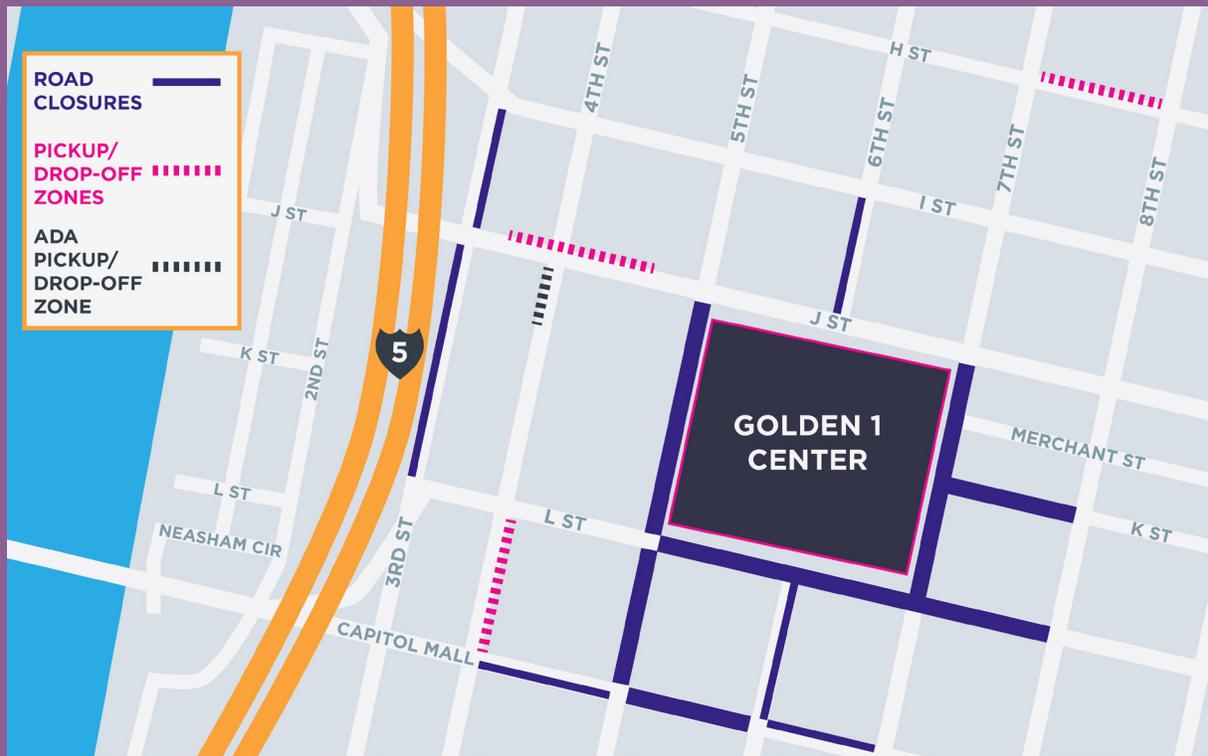
Ride-hailing services—also known as Transportation Network Companies (TNCs)—provide flexible on-demand transportation services that connect drivers with passengers at the request of passenger. Rising demand for services like dynamic transit, TNCs, and local taxis, could shift roadway demands away from parking and more to passenger loading areas, elevating discussions about—and conflicts over—how the city allocates curb space. According to a study conducted by the University of Colorado, a large portion of TNC trips, such as Uber and Lyft, are reducing the demand for parking.⁷

National professional and research organizations are studying and providing best practice guidelines for curb space. Recent examples include the Institute of Transportation Engineers' [Curbside Management Practitioner's Resource](#) and the National Association of City Transportation Officials' [Curb Appeal: Curbside Management Strategies for Improving Transit Reliability Whitepaper](#).

WHAT'S NEW WITH RIDE-HAILING AND TAXIS NEAR RANCHO CORDOVA?

SacRT partnered with Uber, Lyft, and Yellow cab for a pilot program that provided up to \$5 off rides for people traveling to or from one of six SacRT Gold Line Stations (Roseville Road, Florin, Franklin, Watt/Manlove, Sunrise, or Power Inn) to or from an event at Golden 1 Center. Designated rideshare curb zones were located a couple blocks away from the arena.¹ Rancho Cordova could apply this same approach, creating specific loading areas and policies near transit stations, business parks, shopping areas, and other popular destinations.

In addition to the program at Sacramento's Golden 1 Center, Rancho Cordova received a grant from the Sacramento Area Council of Governments (SACOG) for a pilot project with Lyft. This pilot will target first-last mile trips to and from transit. Anyone taking Lyft to or from a light rail station in Rancho Cordova will be eligible for a subsidy of \$5 for their trip. The pilot is expected to start in the spring of 2019 and continue until grant funds (about \$60,000) are depleted.²



Source: Lyft

¹ Bizjack, Tony. "Sacramento light rail announces arena partnership with Uber, Lyft, and Yellow Cab." October 4, 2016. Retrieved from <https://www.sacbee.com/news/local/city-arena/article105758206.html>.

² City of Rancho Cordova TDM Innovations Grant Program 2017-2018 Application.

STRATEGIES

Strategies that will enhance the responsiveness of land use and mobility will most likely fit best in Scenario 2, New Mobility Services.

Evolve Land Use Policies

The City can help shape future mobility projects through development policies and processes. Transportation and mobility can be incorporated at the time of new development and redevelopment by including incentives or requirements in the development review process.

New development that is clustered close together and incorporates mix of uses and offers better access and circulation for non-motorized modes will best accommodate a variety of mobility options. Higher capacity modes—such light rail or bus rapid transit—or modes that typically carry people a shorter distance—such as walking, biking e-bikes or e-scooters—are best suited for high density areas that have a mix of land uses. Less frequent bus service can be suited to medium- and low-density areas or connecting more homogenous land uses.

Retail and offices surrounded by parking often encourage people to drive, and may not always be the best or most efficient use of space. Replacing this parking with mobility hubs (see below), sidewalks, bike lanes, access to transit, or even redevelopment can create an environment conducive to mitigating the need to drive personal cars. Reducing or even eliminating minimum parking requirements can also help shift development trends to better accommodate mobility options rather than SOV.

What is the City's Role?

- City land use policies can ensure new development—including residential and commercial developments as well as new roadways—consider and accommodate transportation options, such as public transit, shared mobility services (TNCs, bike share, car share, etc.), bike and pedestrian connections. This may include, but is not limited to, requiring new developments to:
 - » Provide new bike parking or install a bike share station.
 - » Dedicate parking spaces to car share vehicles.
 - » Make infrastructure enhancements to bicycle facilities or pedestrian crossings adjacent to or near the property.
 - » Adopt a curb management policy and consider dedicating curb zones for TNC to pick-ups and drop-offs.
 - » Ensure site designs offer easy and safe access for non-motorized modes.
 - » Reduce, cap, or eliminate parking requirements.
 - » Install electric charging stations.

Why is this Important?

Policies and processes for new development can help ensure that supportive infrastructure for transportation, including new mobility services, is incorporated throughout Rancho Cordova.

Mobility Hubs

Mobility hubs provide access to a variety of transportation modes in one location allowing for convenient multimodal connections. They can include:

- Accessible, universal design that allows people of all physical abilities to the hub and mobility options.
- Transit stops or stations with real-time arrival information and payment kiosks.
- Bike parking and convenient route access to the surrounding network.
- Safe and convenient pedestrian infrastructure that connects the hub comfortably to nearby destinations.
- Shared mobility service spaces (e.g., bike share stations, car share vehicle parking, dedicated curb zones for TNC services, electric scooters, free-floating bike and e-bike share, etc.).
- Placemaking elements, such as public art, landscaping, lighting, public seating, and trash cans.
- Nearby commercial uses that are important generators, general retail, libraries, medical, etc.
- Goods delivery lockers, letting people come to get ordered items, rather than home or office delivery.
- Electric charging stations for people to charge their electric vehicles.

What is the City’s Role?

- Identify potential mobility hub locations within Rancho Cordova.
- Support the development of mobility hubs with investments in transit stop and station amenities, bike facilities, and pedestrian infrastructure.

What Capital Investments are Needed?

Capital Investments	Level of Financial Investment
Commercial development	\$\$\$\$\$
Benches	\$
Shelters	\$
Trash cans	\$
Lighting	\$
Passenger Information/Signage	\$
Sidewalks	\$
Landscaping	\$
Pedestrian crossings	\$
On-street bike facilities	\$
Off-street bike parking	\$

Why is this Important?

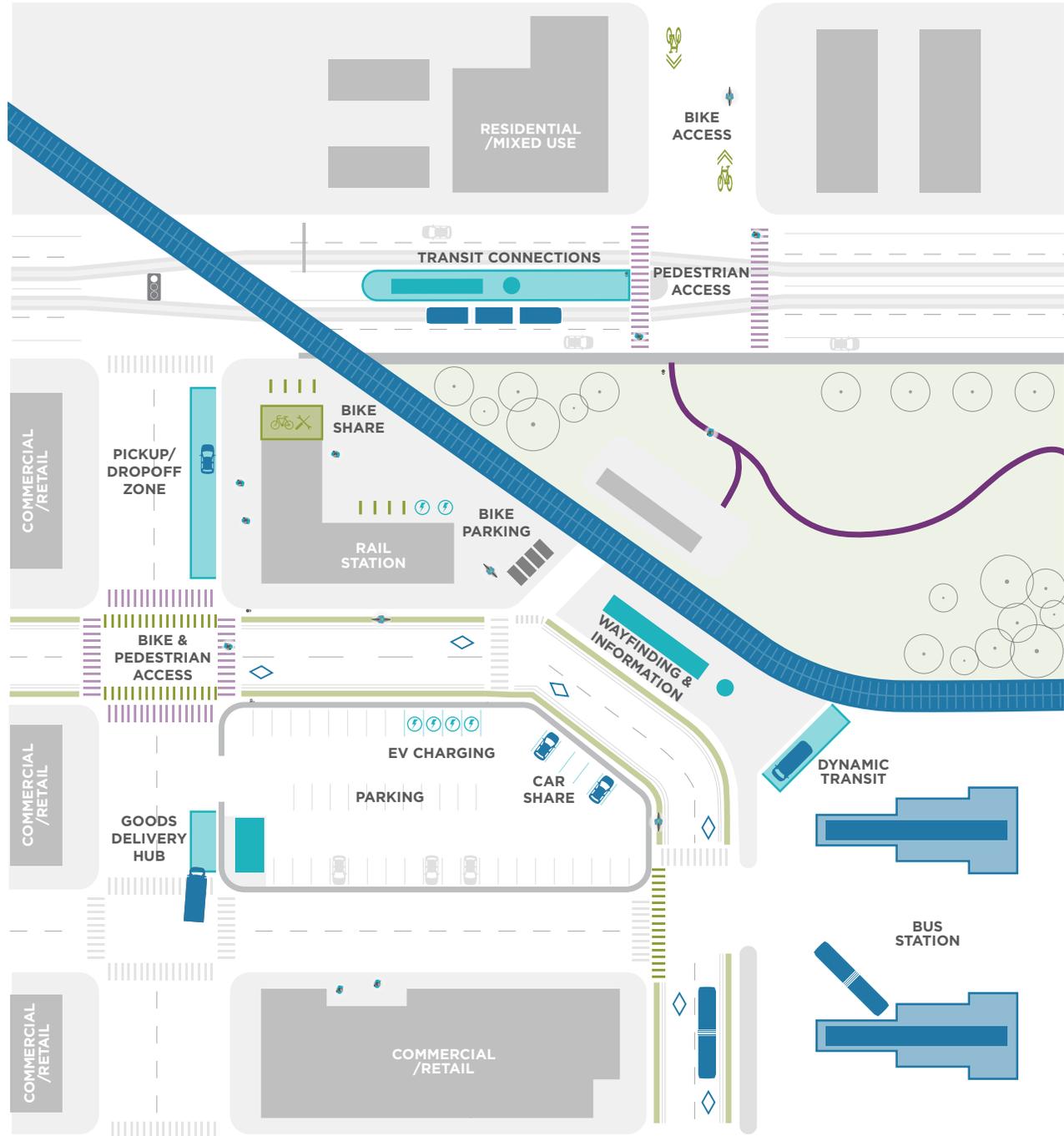
Mobility hubs can help encourage transit use by providing seamless connections between modes, integrating multiple travel options with convenience, safety and efficiency for cities and travelers.

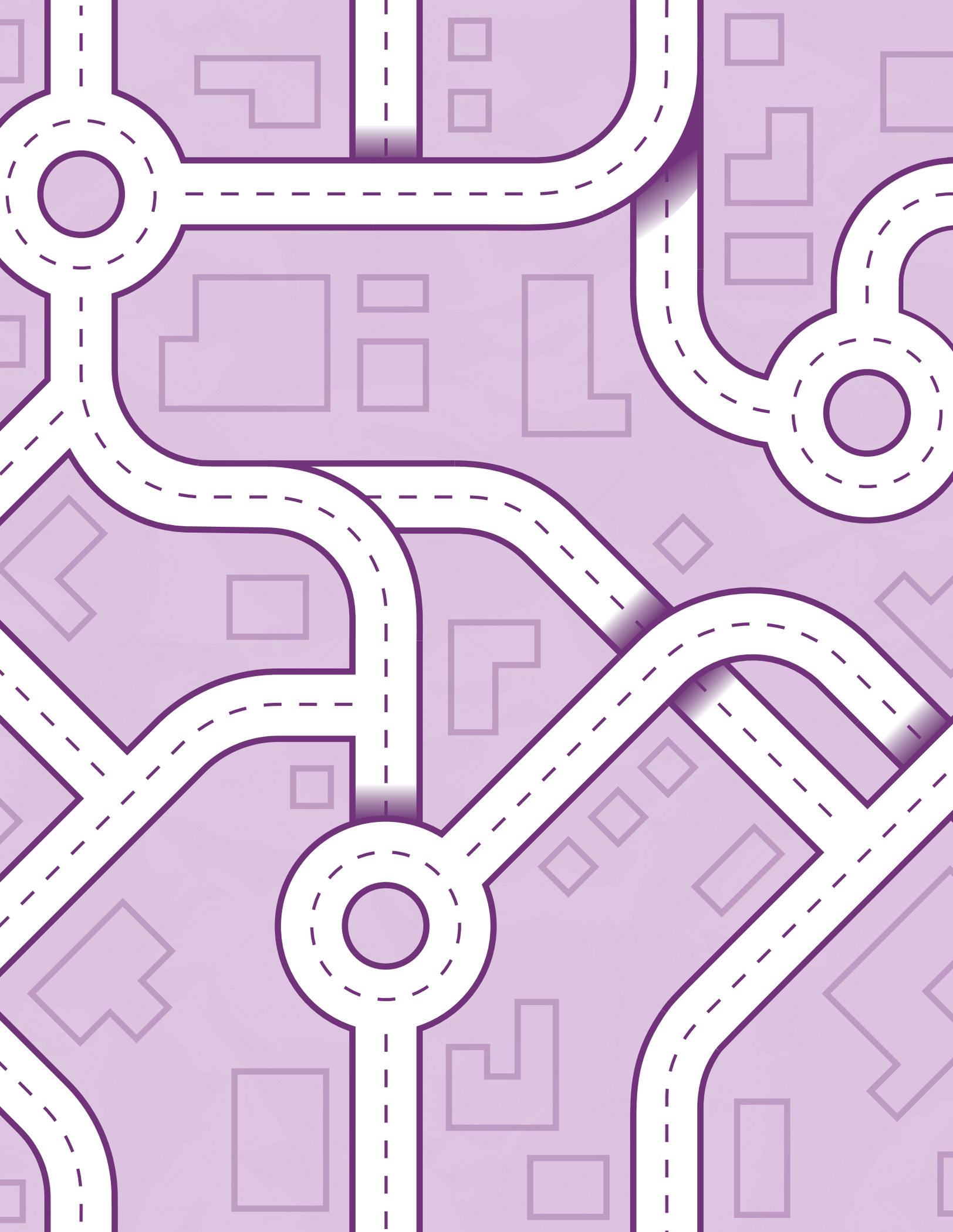


People traveling through Union Station in Denver can make multimodal connections via bus, light rail, bike, or walking. The central hub also provides retail and restaurants.

Source: Nelson\Nygaard

Mobility Hub Elements





6

EFFICIENT

Move people efficiently to, from, and within Rancho Cordova.

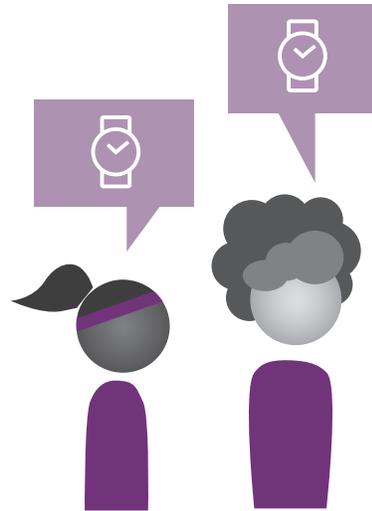
Efficient mobility options will be in high demand as Rancho Cordova continues to grow. More people moving to more jobs will require more efficient transportation choices to reduce congestion and increase convenience. When it comes to mobility, efficiency can refer to several elements. Mobility options themselves need to operate efficiently and move people efficiently—which will be particularly important as regional travel demand increases—but this also speaks to the use of capital. Today, mobility options, such as biking or riding public transit, physically take up less space than driving alone. New mobility technologies may also allow the City to operate efficiently by maximizing existing infrastructure rather than new investments. For example, connected vehicle technology in the future will allow vehicles to communicate with other vehicles as well as surrounding infrastructure and may remove the need for traffic control signals and signage for automobiles, buses, trains, and more.⁸



WHAT WE'VE HEARD

City Council indicated that Rancho Cordova needs to ensure that **all parts of Rancho Cordova**—established neighborhoods, new neighborhoods, business centers, etc.—**can be connected for both local and regional travel**. Transportation modes need to be **appropriate for the context and demand** in Rancho Cordova.

When asked about what enhancements could encourage more people to ride public transit in Rancho Cordova more often, **33% of survey respondents indicated that faster, more direct transit that is competitive with automobile travel times**.



NEW TECHNOLOGIES

Dynamic transit can provide a more flexible and efficient mobility option for neighborhoods with limited access to transportation compared to expanding existing services by investing in new infrastructure, such as new bus stops or light rail stations.

Dynamic Transit

Dynamic transit provides on demand, shared ride vehicles operated publicly or privately, typically with vans or small buses, that provide service on dynamically generated routes. In some cases, private companies (e.g. Bridj, Via) operate their services independent of local public transportation agencies. Other companies offer a software platform (e.g. TransLoc) that lets public transportation agencies deliver dynamic routing on bus services with agency vehicles and drivers. The companies have offered driver- and customer-side mobile applications.

WHAT'S NEW WITH DYNAMIC TRANSIT NEAR RANCHO CORDOVA?

In May 2018, The City of West Sacramento began a yearlong dynamic transit pilot project with Via, a New York based rideshare company. People can book a ride using the app from 7a.m. to 7p.m. Monday through Friday and 9a.m. to 7p.m. on Saturdays.¹

RT began operating its own dynamic transit service, SmaRT Ride, in the communities of Citrus Heights, Antelope, and Orangevale. People can request a ride from 6 a.m. to 9 p.m. using the TransLoc smartphone app.²

Rancho Cordova is working with Sac RT and Transloc to conduct a pilot dynamic transit service in the Riverside neighborhoods north of Highway 50. This shift could help the City improve operational efficiencies and provide people using the service with a more flexible and efficient mobility option.³



Source: City of West Sacramento



Source: SacRT

¹ City of West Sacramento. "On-Demand Rideshare Now Available in West Sacramento." May 14, 2018. Retrieved from <https://www.cityofwestsacramento.org/Home/Components/News/News/874/67>

² Sacramento Regional Transit District. "SacRT's SmaRT Ride Expands Service to Orangevale and Antelope." April 23, 2018. Retrieved from <https://www.sacrt.com/apps/sacrts-smart-ride-expands-service-to-orangevale-and-antelope/>.

³ TransLoc Dynamic transit Pilot Proposal for Rancho Cordova.

STRATEGIES

Strategies that will promote efficiency—both with service operations and the use of capital—will be applicable across all future scenarios: Scenario 1, Traditional Transportation; Scenario 2, New Mobility Services; and Scenario 3, Future Technologies.

Optimize Bus Transit Routes

Route optimization may include grade separation or rerouting transit. On streets with very high transit volumes, physical separation of transit lanes with running-way treatments provides the highest level of transit reliability, speed, and comfort. However, it also requires the most significant capital investment. Rerouting transit to existing roadways typically requires less capital investment.

What is the City's Role?

Discuss grade separation feasibility with RT for Gold Line Light Rail crossings at Bradshaw, Routier, Mather, and Zinfandel.

Identify potential locations for dedicated transit lanes (i.e., traffic lanes that are only for public transit). One example might include a dedicated transit lane along the Citrus Road bike trail north from the Sunrise Light Rail Station across the Sunrise Boulevard Bridge.

Why is this Important?

Optimizing transit routes can reduce turn-related delays for buses and help eliminate potential conflicts between transit and other roadway users.

RT GOLD LINE GRADE SEPARATION

Reconstructing Gold Line Light Rail crossings would be a significant investment to reduce the opportunity for train-car collisions; reduce conflicts for people driving, walking, and biking in Rancho Cordova; and reduce travel times on the Gold Line. However, this high cost investment may not be necessary as new mobility options become available, such as connected vehicle technology.



Source: flickr Creative Commons user Paulkimo9

Prioritize Transit Service

More direct transit service can help increase the speed of transit, such as off-board fare payment, transit signal priority and queue jump lanes.

- **Off-board fare collection systems** allow passengers to board transit vehicles without waiting in line to pay fares.
- **Transit signal priority** is activated by an approaching transit vehicle and can be very effective on streets with long signal cycles or significant distances between signals. This technology is also called out in the Rancho Cordova’s Smart Region Technology Implementation Plan (see the “Invest in Intelligent Transportation Systems” strategy).
- **Queue jump lanes** are short sections of exclusive transit lanes that allow transit vehicles to bypass congested areas.

Why is this Important?

Off-board fare payment can make each stop of the vehicle shorter and more efficient. Adopting the Connect Transit Card system for CordoVan could also make connections between transit systems throughout the region more convenient.

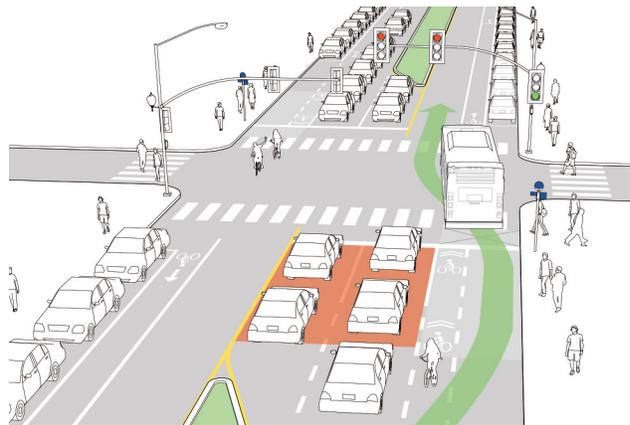
Transit signal priority and queue jump lanes can significantly reduce delay and improve speed and reliability.



Source: City of Roseville

What is the City’s Role?

- Consider adopting the Connect Transit Card for the CordoVan.
- Work with SacRT to identify the locations where transit service experience the most delay due to traffic congestion. Where appropriate, implement transit signal priority or queue jump lanes.



Source: NACTO

What Capital Investments are Needed?

Capital Investments	Level of Financial Investment
Off-board fare payment kiosks	\$\$
Transit Signal Priority infrastructure	\$\$\$\$
Queue jump infrastructure or restriping if needed	\$\$

Connect Card readers (top) are available on-board RT buses and are located on the platform of light rail stations. **Queue jumps (bottom)** can help transit vehicles bypass congestion.

Invest in Intelligent Transportation Systems

Rancho Cordova has partnered with the cities of Sacramento, Citrus Heights, Elk Grove, and Folsom as well as Sacramento County, SACOG, El Dorado County, and Caltrans District 3 on the Smart Region Sacramento Intelligent Transportation Systems (ITS) Architecture and Future Technology Project. Rancho Cordova has its own Smart Region Technology Implementation Plan that provides a list of prioritized projects to meet the needs of the city. Strategies in this plan overlap with several other regional efforts including the Sacramento Region ITS Plan, Capital SouthEast Connector Joint Powers Authority Smart Corridor Plan, and Caltrans Integrated Corridor Management Plan.

The City of Rancho Cordova ITS Improvements Project has invested \$5.5 million to create 20 miles of fiber optic network, install smart technology including 80 Econolite Cobalt (smart) controllers, 40 PTZ CCTV cameras, Bluetooth travel time readers, and a Traffic Management Center (TMC) with a new Centracs (ATMS) system.

What is the City’s Role?

Pursue the prioritized projects included in Rancho Cordova’s Smart Region Technology Implementation Plan. The City recently updated its ITS Master Plan as part of the regional efforts by SACOG and should refer to this plan for future ITS expansion.

What Capital Investments are Needed?

Capital Investments	Level of Financial Investment
<p>Fill in gaps of existing ITS investments and connect with regional network. As described in the September 2018 Draft Plan Smart Region Technology Implementation Plan, investments include:</p> <ul style="list-style-type: none"> • Vehicle video detection • Transit signal priority • Closed Circuit Television (CCTV) cameras • Ethernet over copper for communication • Filling any gaps in fiber communication • Dedicated Short Range Communications (DSRC) radio units • Automated Traffic Signal Performance Measures (ATSPM) • Changeable Message Signs (CMS) for travel information • New interconnect • Communication hub • Upgrading any older ITS equipment 	<p>\$\$\$\$\$</p>

Why is this Important?

ITS can improve the safety, reliability, and overall performance of a transportation system. Strong ITS infrastructure supports the integration of transportation options and helps new mobility solutions reach their full potential. A regional effort will also support the development of an efficient regional transportation network.

Assess City Staff Structure and Organization

New mobility services are not only changing the way people travel but also the way public agencies operate. Some agencies may serve as a promotional partner to these services while others may choose to be more hands-on.

- **Information provider:** The agency provides information about the mobility service, letting residents, employees, and visitors know what is available.
- **Promotional partner:** The agency encourages the use of the mobility service by providing an incentive. For example, RT encouraged the use of ride-hailing and taxi services with a financial incentive.
- **Broker:** The agency contracts with a third party provider to offer the mobility service. For example, the City of West Sacramento contracted with Via to provide dynamic transit anywhere within the city.
- **Service provider:** The agency provides the mobility service themselves. For example, RT is providing dynamic transit within several communities in the Sacramento region.

Rancho Cordova should consider what role is most appropriate for the organization to serve the transportation needs of the community.

What is the City's Role?

- Conduct an internal assessment of current city staff capacity to take on the strategies of these plans.
- If deemed appropriate, hire city staff dedicated to public transportation, TDM, and emerging mobility services.

Why is this Important?

Adequate staff capacity will be essential as the City transitions to using new mobility services. Additional staff responsibilities could be added to support the strategies outlined in this plan. It is an opportune time to restructure city staff, if necessary, to better support mobility and transportation.

Identify Stable Funding Sources

Rancho Cordova will likely become eligible for new funding sources as new mobility services become available within the City.

What is the City's Role?

- Review the potential funding sources provided in the following chapter.
- Pursue additional funding to support new mobility services.

Why is this Important?

Rancho Cordova has benefitted from stable funding, providing new and innovative approaches to transportation needs, and continuing those services consistently. Continuing to build a base of stable funding is critical to develop new services, and to leverage with federal funds targeted for major infrastructure initiatives.

Adopt a Strategy Risk Assessment Process

A risk assessment will provide a formal process to evaluate strategies and ask questions about the strategy such as:

- What do we know? What do we need to know?
- How well does this project further our citywide vision and goals?
- Is this major capital investment at risk of obsolescence due to technological change?

What is the City's Role?

The eight step risk assessment procedure template below describes how the City will identify and arrive at a clear business case for the City's future investments. The next page illustrates the process with key questions.

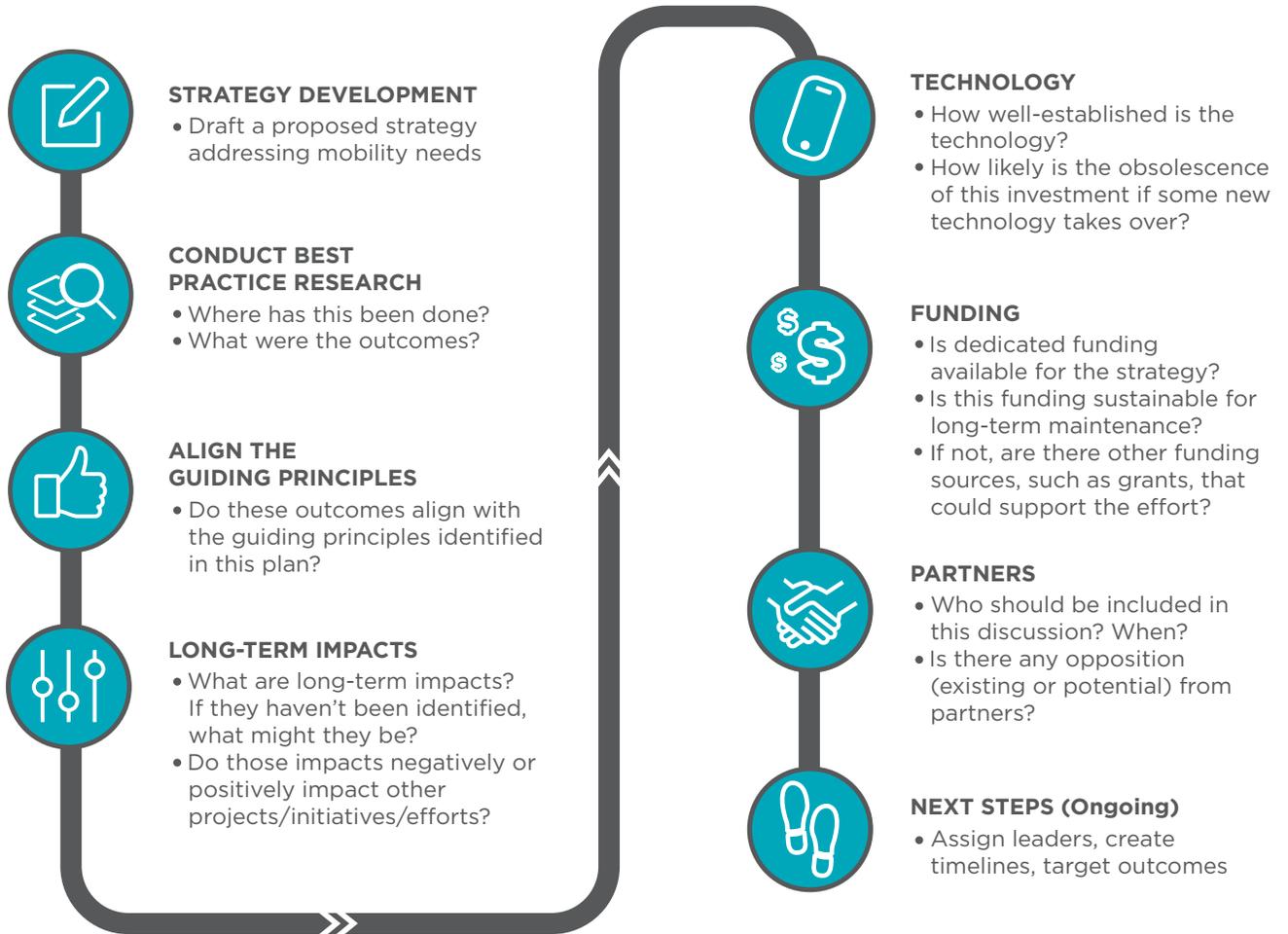
1. **Strategy development:** A description of the proposed project provides a starting point from which to assess potential opportunities, risks, and costs. This could be derived from an adopted plan, or proposed to address an emerging transportation need.
2. **Best practices research:** Other communities are implementing projects, and peer project managers and city leaders can share insights to continually improve service delivery.
3. **Guiding principles:** Rancho Cordova has laid a clear path for developing into the key principles and values, and this will help ground an assessment and provide context along with key focus areas from recent short-range planning. Note that this step is also where key performance measures are established that are intended to measure the degree of success the intended strategy will contribute to the City's principles and values.

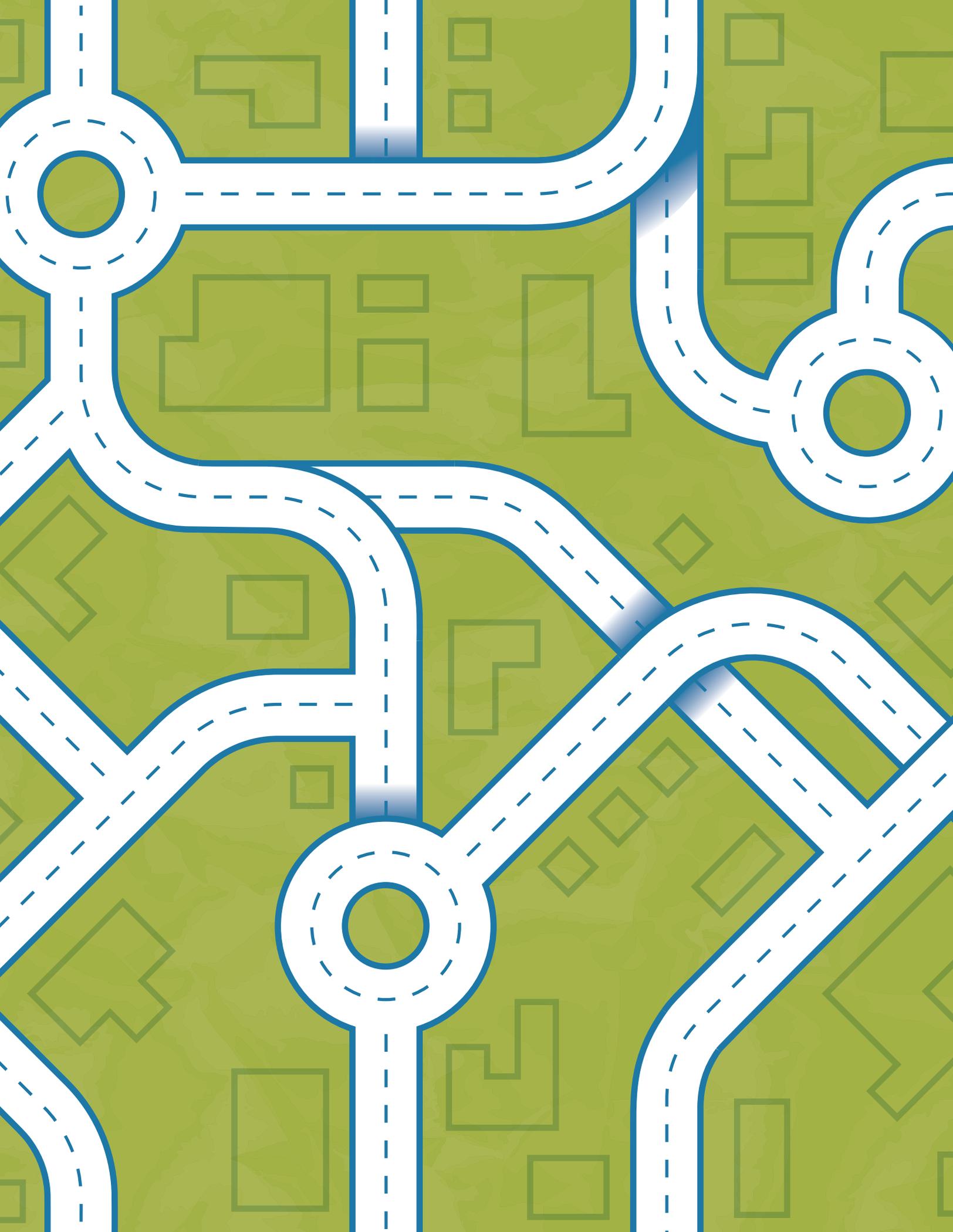
4. **Technology:** More developed and tested technologies will present less risk to the City, from hardware and software components, to service delivery models; however, even traditional modes are subject to obsolescence as new technologies like autonomous vehicles come online.
5. **Long-term impacts:** To the extent possible, understanding and comparing long term impacts will clarify decision-making by helping compare costs and benefits.
6. **Funding:** Knowing potential funding resources and requirements is crucial to weighing risk and opportunity, and informing what partners are needed to move forward.
7. **Partners:** Relationships between agencies and businesses can stabilize projects or inject significant local risk; an objective look at partners' strengths and weaknesses provides critical long-term information.
8. **Next steps:** This step will only be completed if the City decides to move forward with the strategy. For projects moving forward, it will be important to carry forward the key actors, actions, and target delivery dates.

Why is this Important?

A strategy risk assessment will help answer core questions to mobility project investments, improve planning and delivery, and prioritizing effective solutions to mobility needs.

Risk Assessment Process





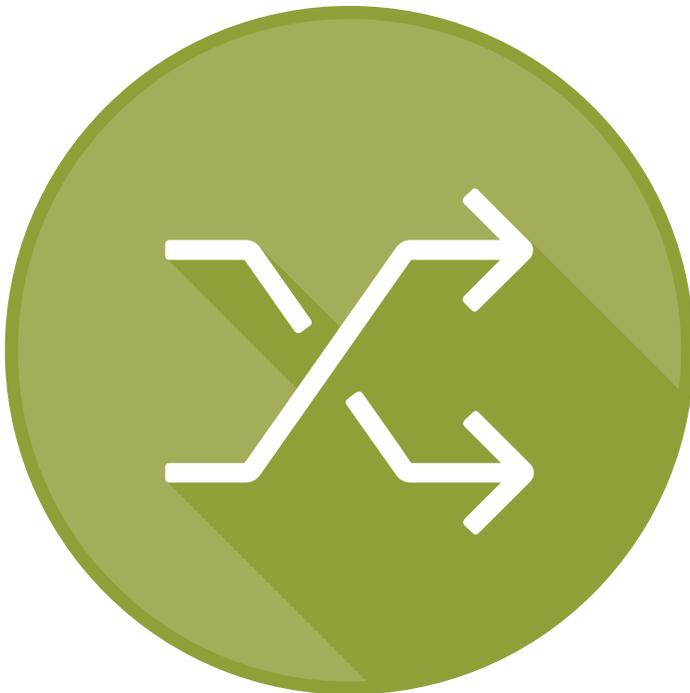
7

FLEXIBLE

Provide flexible mobility options.

When it comes to transportation, there is no one size fits all option. People may travel a far distance requiring them to use multiple modes; others may need a mobility option that picks them up right at their door; and some may choose to change their transportation mode from day to day (bike on Mondays, ride transit on Tuesdays, etc.). Offering a variety of mobility options provides people with flexibility to design a commute that meets their changing daily needs.

Flexible mobility options not only refers to a wide range of choices to meet a wide range of needs but also mobility choices that people can rely on. New transportation technologies have caused a shift in peoples' mobility preferences. People have come to expect mobility choices that are reliable and readily available. This is a key component to help reduce congestion and encourage the use of non-drive alone modes. For example, if you miss the bus, you want to know that another bus is not far behind or that there is another option (bike share, Lyft or Uber to a light rail station) that you can turn to.



WHAT WE'VE HEARD

Stakeholder interviews acknowledged that people are interested in more flexible travel options, particularly those that support door to door service.

Current trends in non-single occupancy vehicle transportation indicate several possible futures, but no certainty in any particular direction. City Council indicated this Mobility Master Plan needs to be flexible enough to embrace an unknown future. Due to limited predictability, financial forecasting also needs to be flexible.

NEW TECHNOLOGIES

Bike and scooter sharing is one of the most flexible transportation options available. People can pick-up a bike or scooter, ride it to their destination, and simply leave it behind without having to rely on a transit schedule or worry about parking for shorter distances.

Autonomous vehicles are also expected to provide flexibility. Although the impact of them is unknown at this time, they have potential to reduce car ownership and parking demand.

Bike and Scooter Sharing

Bike/Scooter sharing allows people to rent shared mobility devices for short periods of time—typically by the hour or minute—and short-distance point-to-point trips. Some systems use dock stations—customers pick up a device at one self-service docking station and return it to any other station within the service area. Other systems are dockless, which allows people to pick-up and drop-off devices anywhere in the service area. Bike and scooter share are often seen as an extension of the transit system, allowing users to easily and inexpensively complete the first or last mile of their trip.

WHAT'S NEW WITH BIKE/SCOOTER SHARING NEAR RANCHO CORDOVA?

JUMP—an electric bike share system—launched 900 e-bikes in the neighboring cities of Davis, Sacramento, and West Sacramento in summer 2018. The new bike share system will be the largest electric-assist bike share system in North America. Offering this new mobility option was made possible by a unique public-private partnership between Social Bicycles (SoBi), the Sacramento Area Council of Governments (SACOG), and the cities of Davis, Sacramento, and West Sacramento.¹ In addition to e-bikes, JUMP brought 100 e-scooters to Sacramento and West Sacramento in February 2019.² The City of Sacramento has updated their city code to regulate the operation of bike share and e-scooter businesses.³ Rancho Cordova is exploring a pilot bike share program with Gotcha Group that is expected to launch in 2019.



Source: City of West Sacramento

¹ Sacramento Area Council of Governments. "Jump Bike Share System Launches." Retrieved from <https://www.sacog.org/post/jump-bike-share-system-launches>

² Sacramento Bee. "Electric street scooters are coming to Sacramento. See when and where." Retrieved from <https://www.sacbee.com/news/local/transportation/article225420220.html>

³ City of Sacramento. "Chapter 5.18 Bicycle-Share Business." Retrieved from https://www.qcode.us/codes/sacramento/view.php?version=beta&view=mobile&topic=5-5_18.

Autonomous Vehicles

Autonomous vehicles may be deployed in a variety of formats, such as autonomous buses that follow fixed routes, autonomous cars that are a driverless version of current ride-hailing services, or personal autonomous vehicles. Research and development activity around autonomous vehicle technology continues to develop, with pilot services in a number of cities across the United States and around the globe. Although the widespread impact of this new technology is unknown at this time, they have potential to reduce car ownership and parking demand. For example, a public fleet of autonomous

vehicles may deter people from purchasing their own. However, if most people end up purchasing their own autonomous vehicle, the car could drop them off at their destination and return home to park rather than taking up public parking.

Once driverless vehicles are available for widespread consumer use, they are expected to steadily gain market share and carry a major portion of motorized passenger travel within two or three decades.⁹ The exact timeline will not be clear for some years, given unknowns about the technology itself and the regulatory efforts that will shape it.

WHAT'S NEW WITH AUTONOMOUS VEHICLES NEAR RANCHO CORDOVA?

An active and ongoing autonomous shuttle pilot was launched at Sacramento State in February 2019. The College secured \$88,000 of funding from SACOG for the pilot project, which will continue for three months during the 2019 spring semester!



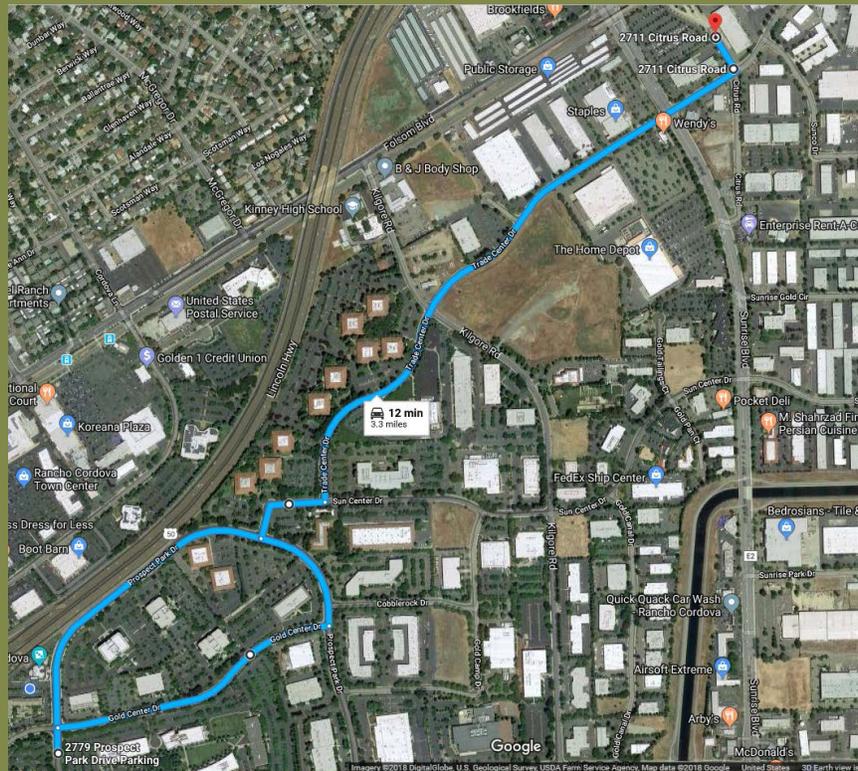
Source: SACOG

¹ Sacramento State News. "Driverless shuttles to start rolling after official debut." Retrieved from <https://www.csus.edu/news/articles/2018/12/12/All-aboard-for-Olli,-the-driverless-shuttle-coming-to-campus.shtml>.

WHAT'S NEW WITH AUTONOMOUS VEHICLES NEAR RANCHO CORDOVA? (CONTINUED)

City of Sacramento has contracted with Phantom Auto to use downtown streets for testing autonomous vehicles that will be monitored by remote “drivers” sitting at computers who can control the vehicle if needed. This agreement is the first such cooperative testing effort in the country. Phantom Auto is currently in the process of testing wireless connections to ensure people monitoring the vehicles will not lose connectivity. Phantom will then conduct autonomous vehicle demonstrations on two initial test routes: one that will connect City Hall, the state Capitol, and the convention center and another that will connect Sacramento State to the 65th Street Light Rail Station.^{1,2}

In June 2018, Rancho Cordova also submitted a funding request to SACOG for an autonomous shuttle pilot project. The preliminary 3.3 mile route (shown below) would connect Sunrise Light Rail Station with Rancho Cordova businesses include the Rancho Cordova Town Center.³ This project is committed and will be funded by SACOG, once DMV regulations allow use of public streets by fully autonomous shuttles. This pilot should remain a future consideration for Rancho Cordova.



Source: City of Rancho Cordova

1 Bizjack, Tony. "Autonomous cars would navigate Sacramento streets with a back-up driver 100 miles away." August 2, 2018. Retrieved from <https://www.sacbee.com/news/local/transportation/article215835505.html>.
 2 City of Sacramento. August 1, 2018. Retrieved from <http://www.cityofsacramento.org/Mayor-Council/Districts/Mayor/Press-Releases/2018-08-01-Sacramento-and-Phantom-Auto-create-safe-testing-environment-for-autonomous-vehicles>.
 3 City of Rancho Cordova. "Funding Request Proposal for Autonomous Shuttle Pilot Project." June 29, 2018.

STRATEGIES

Strategies that will enhance flexibility in Rancho Cordova will be applicable across Scenario 2, New Mobility Services and Scenario 3, Future Technologies.

Formalize Emerging Mobility Service Partnerships

Formalize partnerships with private third party mobility service providers, such as TNCs, electric bike-and scooter-share, dynamic carpooling, etc.

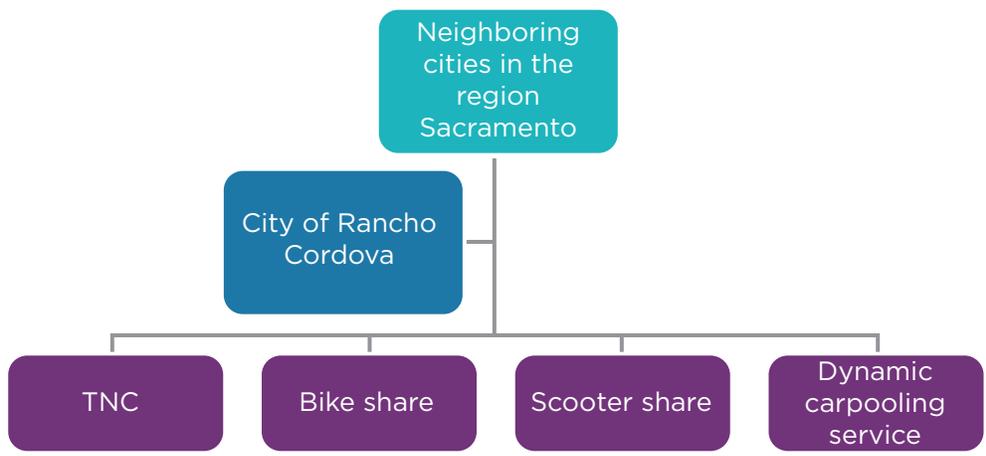
What is the City’s Role?

- Consider what role is most appropriate for the organization to serve the transportation needs of the community (i.e. information provider, promotional partner, broker, or service provider).
- Discuss opportunities to leverage existing partnerships with neighboring cities.
- Update City Code and polices to regulate the operation of shared mobility services, such as bike share and e-scooters.

Why is this Important?

Making connections and formalizing partnerships with neighboring cities and private service providers now can help streamline future processes for implementing new mobility services. People in the region have no political boundaries when it comes to mobility. This is clearly demonstrated by the daily inflow-outflow commute travel patterns.

Rancho Cordova’s mobility challenges are not siloed within the City but shared with the region. As such, partnerships with other jurisdictions will be crucial to finding solutions.



Encourage the Use of Autonomous Vehicles

Autonomous vehicles may be deployed in a variety of formats, such as autonomous buses that follow fixed routes, autonomous cars that are a driverless version of current ride-hailing services, or personal autonomous vehicles. Although it is unclear when autonomous vehicle technology will be made available to the public, there is opportunity for Rancho Cordova to support the research and development of this new technology.

Autonomous vehicle pilot services already exist in a number of cities across the United States and around the globe.

What is the City's Role?

- Review outcomes of the City of Sacramento's autonomous vehicle testing.
- Review and if necessary update to City code to allow for testing of autonomous vehicles.
- Pilot an autonomous bus/shuttle in Rancho Cordova.

What Capital Investments are Needed?

Capital Investments	Level of Financial Investment
Autonomous bus/shuttle	\$\$\$\$

Why is this Important?

Autonomous vehicles are already in testing and may be on the city streets by 2025. Rancho Cordova will benefit from preparing for new technology now—especially with newly installed smart devices that are ready for this new technology—by having the organizational expertise and capacity to address rapidly evolving changes to transportation programming and infrastructure, and potentially land use development patterns.

Convene a Transportation Technology Committee

With several unknowns about what the future holds, Rancho Cordova will need to stay up-to-date and informed about new transportation technologies.

A committee dedicated to transportation technology can promote innovation and help Rancho Cordova make progress toward the implementation of new mobility services.

What is the City's Role?

- Convene an internal transportation technology committee to monitor trends in this industry and discuss opportunities for how these new technologies could be implemented in Rancho Cordova.

Why is this Important?

This committee could help:

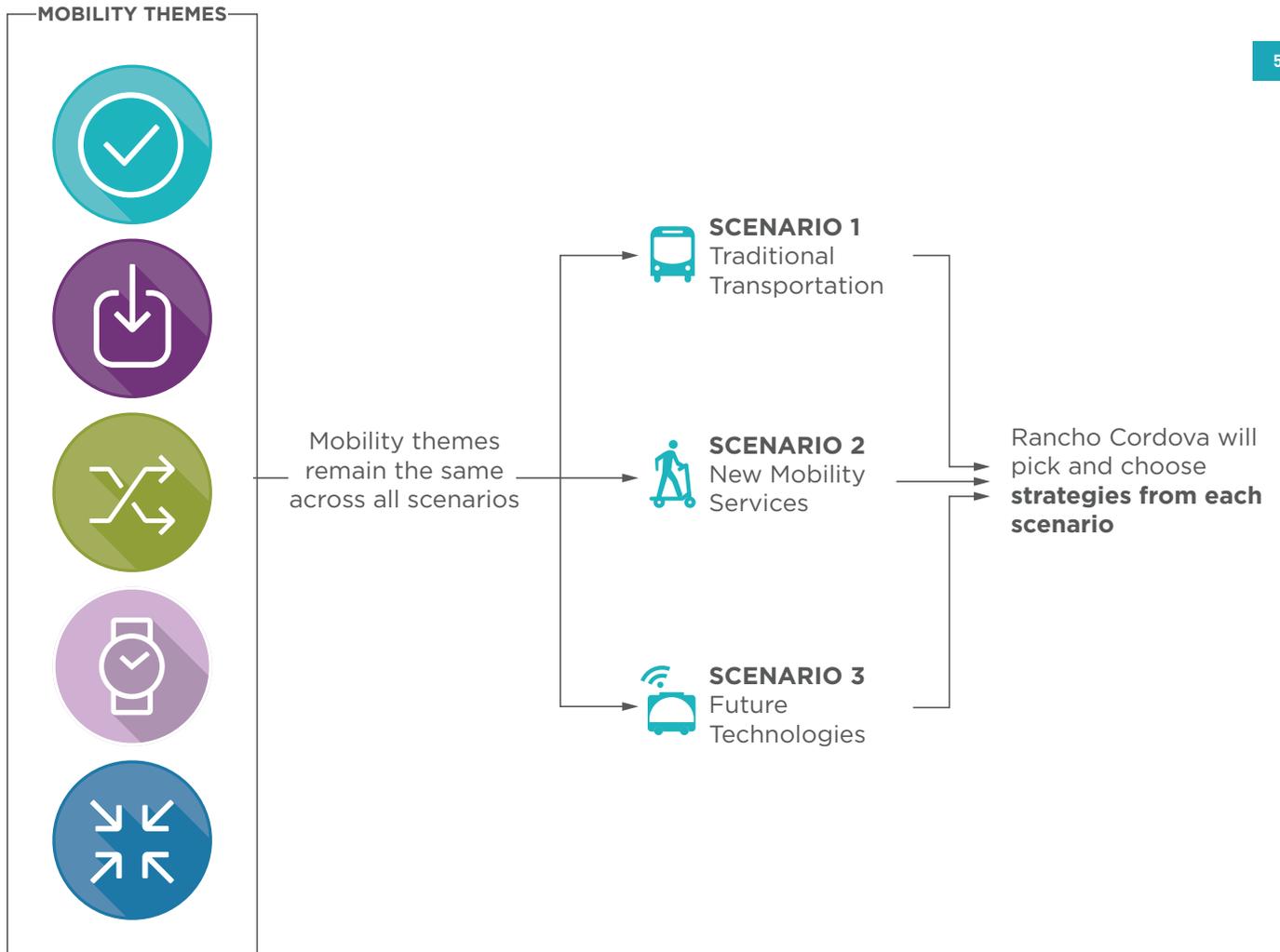
- Brainstorm and explore a topic that is not well defined, such as future transportation technologies;
- Apply for grants to fund and establish pilot programs that leverage new technologies; and
- Coordinate and streamline implementation processes of new transportation technologies.
- Support the [Smart Region Sacramento Initiative](#).



8

IMPLEMENTATION PLAN

A complete summary of all the strategies listed is included on the following pages. For most Mobility Themes, each strategy is associated with a specific scenario, indicating that these strategies are best suited for implementation within that scenario, however, they could also be carried forward into more futuristic scenarios.



Summary of Mobility Master Plan Strategies

Scenario	Strategy	Partners	Level of Financial Investments	Phase
 Safe				
All Scenarios   	Enhance Bus Stops	<ul style="list-style-type: none"> Rancho Cordova Public Works Sacramento RT 	\$ - \$\$	Near-term
	Connect Bike and Pedestrian Infrastructure	<ul style="list-style-type: none"> Rancho Cordova Public Works Sacramento RT 	\$\$\$	Mid-term
 Coordinated				
Scenario 1 	Increase Transit Service Frequency	<ul style="list-style-type: none"> Rancho Cordova Public Works Sacramento RT 	\$\$	Near-term
	Improve CordoVan Service	<ul style="list-style-type: none"> Sacramento RT Private sector 	\$\$\$	Near-term
	Develop TDM Programming	<ul style="list-style-type: none"> Rancho Cordova Public Works 50 Corridor TMA SACOG Local businesses 	\$ - \$\$	Near-term
	Explore Pilot Projects	<ul style="list-style-type: none"> Sacramento RT Private sector 	\$\$ - \$\$\$	Near-term
Scenario 2 	None			
Scenario 3 	None			
 Responsive				
Scenario 1 	None			
Scenario 2 	Evolve Land Use Policies	<ul style="list-style-type: none"> Rancho Cordova Public Works Rancho Cordova Community Development Rancho Cordova Development Services 	\$	Near-term
	Mobility Hubs	<ul style="list-style-type: none"> Rancho Cordova Public Works Rancho Cordova Development Services Rancho Cordova Economic Development Sacramento RT 	\$ - \$\$\$\$	Long-term
Scenario 3 	None			

Scenario	Strategy	Partners	Level of Financial Investments	Phase
 Efficient				
Scenario 1 	Optimize Transit Routes	<ul style="list-style-type: none"> • Rancho Cordova Public Works • Sacramento RT • SACOG • Sacramento County • Neighboring cities 	\$\$\$\$\$	Long-term
	Prioritize Transit Service	<ul style="list-style-type: none"> • Rancho Cordova Public Works • Sacramento RT • SACOG • Private sector 	\$\$\$\$	Mid-term
Scenario 2 	Invest in Intelligent Transportation Systems	<ul style="list-style-type: none"> • SACOG • City of Sacramento • City of Citrus Heights • City of Elk Grove • City of Folsom • Sacramento County • El Dorado County • Caltrans District 3 	\$\$\$\$\$	Long-term
	Assess City Staff Structure and Organization	<ul style="list-style-type: none"> • Rancho Cordova Public Works 	\$	Near-term
	Identify Stable Funding Sources	<ul style="list-style-type: none"> • Rancho Cordova Public Works 	\$	Near-term
Scenario 3 	Adopt a Strategy Risk Assessment Process	<ul style="list-style-type: none"> • Rancho Cordova Public Works 	\$	Near-term
 Flexible				
Scenario 1 	None			
Scenario 2 	Formalize Emerging Mobility Service Partnerships	<ul style="list-style-type: none"> • Rancho Cordova Public Works • Neighboring cities • Private sector 	\$\$\$\$	Mid-term
Scenario 3 	Encourage the Use of Autonomous Vehicles	<ul style="list-style-type: none"> • Rancho Cordova Public Works • Private sector 	\$\$\$	Mid-term
	Convene a Transportation Technology Committee	<ul style="list-style-type: none"> • Rancho Cordova Public Works • Neighboring cities • SACOG 	\$\$	Long-term

NEAR-TERM IMPROVEMENTS

Implementing the mobility themes and long-range planning scenarios will require Rancho Cordova to flexibly use existing and future planning and development processes to monitor and react as conditions and needs change. Elements of the themes and scenarios may progress in chronological order, however, it is more likely that strategies will surge in priority with technological advances or innovations by partner agencies, and at other times potential strategies will retreat to lower priority as funding and program risks emerge.

The City’s organizational and administrative capacity, therefore, is the backbone to successfully implementing the Plan. The City must be able to monitor and understand mobility indicators, to understand how needs and available solutions match, and then strategically pursue opportunities.

Today, Rancho Cordova is firmly within the Traditional Transportation scenario, with elements of transition into the New Mobility Services scenario. There are several low risk, and potentially low cost improvements the City can move forward with in the near term: increase organizational capacity, maintain regional partnerships, and make quick wins with the existing system, such as enhanced bus stops, pilot projects, and TDM programming.

Organizational Capacity

\$ - \$\$

The risk assessment process described above is one overarching element to the city’s capacity to understand and adapt to a changing transportation environment. Other capacity improvements within the organization can ensure the city is ready to respond and can also inform the decision-making processes.

- Maintain staffing assigned to periodically monitor mobility opportunities and best practices;
- Align departmental expertise needed to understand and address mobility services, such as policy, funding and finance, procurement, and planning; and
- Keep leadership informed about transportation needs, costs, and long-term transportation initiatives.
- Consider merging Mobility Plan strategies with the Rancho Cordova Smart City Plan, which is not yet adopted but under consideration.
- Create a strategy risk assessment for mobility project investments to improve planning, prioritization, and service delivery.

Maintain Regional Partnerships

\$ - \$\$

Rancho Cordova’s interests are closely aligned with agencies serving and located across the region. This is reflected in past regional capital projects, and in staff’s ongoing participation in initiatives, plans, and studies today. Delivering improvements to public transportation and mobility services, even if provided by private vendor-partners, will be best served by coordination with these agencies, to ensure a region-wide network of transportation services provides seamless connections for residents, employees and visitors. City leaders and staff should continue to join colleagues from across the region. Regional partnerships may likewise be critical to implement some strategies such as transportation demand management policies that are most effective at a regional scale.

Quick Wins For Local Mobility

While the transit and mobility services environment is evolving quickly, there are low-cost steps the city can take today to improve the local mobility services. This is partly because the investments can benefit more than one mode or can be re-purposed.

Enhance Bus Stops, \$ - \$\$

Existing and potential bus riders noted in a survey they found the bus stops potentially unsafe and unfamiliar. Relatively small investments in bus stops, such as shelters, trash cans, lighting, and updated posters, can improve customer comfort and access. This can be true even as services move away from fixed routes in some areas, as major destinations typically still have group waiting areas. Improvements to key stops can be designed as initial steps into developing the mobility hub concept, where a station can offer pick up and drop off facilities for multiple modes.

Explore Pilot Projects, \$\$ - \$\$\$

As of 2018, the City is already partnering with Sacramento RT to pilot flexible, on-demand shuttle services for low-density neighborhoods to connect across the city. Short-term pilot projects offer a great opportunity to “try on” different service types, building information and experience to help the city build administrative capacity and operational know-how. The City must proceed carefully, using the risk assessment process, as many vendors’ costs are artificially low thanks to substantial investor funding. Prices and terms can change significantly as the private market growth patterns change.

Transportation Demand Management (TDM) Programming, \$ - \$\$

TDM programs and policies help improve awareness and understanding of the transportation services available and encourage people to use public transportation. The 50 Corridor Transportation Management Association provides a range of TDM services to people living and working in Rancho Cordova. The City can supplement the programming with relatively little cost, such as distributing information about bus routes, pilot programs, walking and biking to people across the community. One common example of TDM a program includes employee education and outreach. Programs targeted to major employers or employment sites can encourage use of existing systems, and provide information to support and improve program delivery. Partnerships with local non-profits, such as WALKSacramento or Sacramento Area Bicycle Advocates (SABA), can help support and strengthen the impact of TDM programs.

FUNDING RESOURCES

The Mobility Master Plan is not fiscally constrained. The projects and investments described here are intended to offer a flexible long-term paths to achieving the City's goals, and funding strategies need to be flexible, too. Rancho Cordova will continue to document near-term transportation plans and committed funding sources in the Sacramento Area Council of Governments' Regional Transportation Plan, in SacRT's long- and short-range transportation plans, and city Capital Improvement Plans.

Rancho Cordova's funding opportunities of tomorrow, like today, will be from a blend of local funds, and state and federal grant programs. The information below provides general information about potential future funding sources. More information about funds can be found in the City of Rancho Cordova budgets and Comprehensive Annual Financial Reports.

Local Sources

Rancho Cordova is in a unique position of having stable local funding sources for transportation projects. This is important to accessing outside grant funds that require a local matching requirement – enabling the city to leverage grants covering 50 to 80 percent of the project cost. Below are several local funding options to consider and pursue to fund strategies described in this plan.

Property Tax

California's one percent property tax base rate is collected and distributed following state law. Rancho Cordova maintains property tax revenues in the General Fund. A local taxing district can include additional property tax rates based on current property values to pay for voter-approved debt, typically used to repay general obligation bonds for infrastructure projects. The Rancho Cordova Sunridge North Douglas Community Facilities District tax levy is one example of this.

Local governments may also add assessments that directly benefit real property for the community approving the tax.

Sales Tax

Sales taxes are assessed on the purchase of goods or services within the jurisdiction of a taxing authority. The California statewide sales tax rate is 7.25%, and local jurisdictions may add district taxes that increase the sales tax, ranging statewide from 0.1% to 1.0%. Some areas may have more than one district tax in effect. Rancho Cordova's sales tax rate is 8.25%, which includes Rancho Cordova Measure H, a 0.5% add-on for local community development (passed 2014). Sacramento County Transportation Authority was created and funded by a countywide half-cent sales tax; this is a major funding source for Sacramento RT (see State and Federal below).

System Development Charges / Development Impact Fee

Systems Development Charges (SDCs) are fees paid by land developers intended to reflect the increased capital costs incurred by a municipality or utility as a result of a development. Development charges are calculated to include the costs of impacts on adjacent areas or services, such as increased school enrollment, parks and recreation use, or transit use.

Rancho Cordova has several Development Impact Fee programs. Each program includes one or more fees to support improvements to facilities needed to serve future development. The programs provide detailed expenditure plans, which are overseen by the Rancho Cordova City Council and based on the city's General Plan. The Development Impact Fee Programs include the Community Facilities Fee, Sunrise Douglas Impact Fee, Traffic Mitigation Impact Fee, Villages of Zinfandel Impact Fee, and the Housing Trust Development. Expenditures, revenues, and program balances are described in the city's Development Impact Fee Reports.

Property Access Fee, Land Value Capture, or Benefit Assessment Districts

Property access fee, land value capture, and benefit assessment districts are mechanisms for sharing transit costs with owners of property located near a transit resource who benefit directly from the proximity to the transit resource. These mechanisms help finance transit through taxes on nearby private development, where the property value increased as a result of transit investments.

Tax Increment Financing

Tax increment financing (TIF) is the primary finance tool used within urban renewal areas. TIF is generated when an urban renewal area (URA) is designated and the assessed value of all property in the area is ‘frozen.’ Over time, the total assessed value in the area increases above the ‘frozen base’ from appreciation and new development. The value in the area greater than the frozen base is called the incremental assessed value, and taxes generated on the incremental assessed value are received by the URA, rather than other taxing districts.

Since 2011 California changed the way TIF was used through Redevelopment Agencies. Similar structures though with less flexibility include Enhanced Infrastructure Financing Districts and Community Revitalization and Investment Authorities. Using these tools would require innovative approaches and close coordination with regional partnerships.

Other Possible Local Sources

- **Advertising:** Agencies can display paid advertisements on vehicles and bus stops, including the inside and outside of fleet vehicles, bus shelters, benches, and in mobility stations. An agency can manage the agreements directly or offer space through a marketing broker / vendor.
- **Pass Programs:** Pass programs are partnerships between an agency and employers or institutions, offering discounted pass (e.g. transit, e-scooters)

for all employees, often at discounted rates. The partner organization may be able to take a tax deduction on the cost of the transit pass.

- **Naming Rights / Sponsorships:** Historically, the selling of naming rights to people or organizations that make a donation for a capital improvement was most common for large organizations, such as universities or hospitals. Selling naming rights has become more common among smaller agencies for vehicles, stations, or corridors.
- **Public-Private Partnerships and Joint Development:** A public-private partnership is a mutually beneficial agreement between public and private entities that seek to improve the value of an asset. Transit funding from public-private partnerships are most likely to be for capital projects such as a mixed use development that combined a transit station or center.
- **Mobility Service Taxes:** Several cities across the country have established taxes on TNCs. Most existing taxes are paid by the user in the form of a flat rate—such as \$0.50 per trip in Portland, OR—or a percentage of the total fare—such as 1.4% of the total fare on trips originating inside the City of Philadelphia, PA.¹⁰ In California, there is a statewide tax on TNC companies rather than on the user. On a quarterly basis, TNC’s pay a 0.33% tax on their California gross revenue plus a \$10 administrative fee to the California Public Utility Commission (CPUC). These funds are dedicated to the CPUC’s Transportation Reimbursement Account to fund expenses incurred from regulating TNCs, TNC drivers, and TNC vehicles.¹¹ The cities of San Francisco and Oakland are consider city taxes on TNCs. Rancho Cordova could implement a local tax on TNCs that helps fund other transportation investments or could potentially apply this model to other mobility options.

State and Federal Sources

Rancho Cordova benefits from Sacramento RT service, which is funded through a mix of state and federal funding programs. Sacramento RT works closely with the Sacramento Area Council of Governments (SACOG) to plan for, and remain compliant with, federal funding sources. Rancho Cordova must continue to work closely with regional partners to have access to all grant and financing opportunities.

California funding includes a mix of funds from bond proceeds (for capital projects), and the Transportation Development Act (TDA) public transportation funds: the **Local Transportation Fund (LTF)** and **State Transit Assistance (STA)** fund. These funds support a wide variety of transportation programs, including planning and program activities, pedestrian and bicycle facilities, community transit services, public transportation, and bus and rail projects. The LTF is allocated back to counties based on local collections. The STA is appropriated by the state legislature which is then allocated to local agencies based on population and prior year operating revenues. In the Sacramento region distribution of TDA funds is a function of SACOG and the existence of Sacramento RT modifies how funds are distributed as TDA funds are the major funding resource for SacRT.

Sacramento RT and SACOG access federal funds critical for the regional transit and mobility network. Key programs today include the Federal Transit Administration's **Urbanized Area Formula Grant** (49 U.S.C. section 5307), **Capital Investment Grants** (49 U.S.C. Section 5309), and other sources such as the **Congestion Mitigation and Air Quality** program (CMAQ), and flexible funding from the Federal Highway Administration **Surface Transportation Program (STP)**.

Major capital funding may be available through major federal funding sources. The USDOT **BUILD Grants Program** (formerly known as TIGER Grants) are competitive funds for capital projects that will have a significant impact on a region, metropolitan area, or the nation. The grant has been available every two to five years. Applicants must propose projects directly to USDOT and local match may vary. Rancho Cordova would work closely with regional partners for major transit infrastructure projects. The **Transportation Infrastructure Finance and Innovation Act (TIFIA)** provides federal credit assistance for surface transportation projects, such as secured loans, loan guarantees, and lines of credit. Eligible project have been large scale surface transportation investments including public transit.

NEXT STEPS

Four key next steps for the City will help initiate the implementation of the MMP. These steps include:

Review the Existing Organizational Staff Structure

Consider whether the City has adequate staff and is organized in a way to move the strategies outlined in this plan forward. In the immediate term, this will include discussion about the City's role in transportation demand management (e.g., education, outreach, and incentives for the use of mobility options). The City could support existing programs and efforts of the 50 Corridor TMA or may decide to develop their own programs and services.

Adopted a Risk Assessment Framework

A template framework is included in this Plan. Adopting that framework—or a similar one—will help ensure the City is prepared to assess the strategies included in this plan or future strategies that arise.

Assess Current Transportation Projects

All currently funded transportation projects that are not yet under construction should be reviewed and evaluated using this plan and the risk assessment framework. The City should consider what mobility themes these projects support, what scenario they might fall under, and if they meet the requirements of the risk assessment framework.

Adopt Mobility Options Policies

Policies to regulation new mobility options, such as bike share and e-scooters are needed in the City. Reviewing the policies of neighboring cities, such as Sacramento, can help provide insight about how Rancho Cordova may want to structure their own policies.

ENDNOTES

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APPENDIX A:
STAKEHOLDER
INTERVIEW
SUMMARY



MEMORANDUM

To: City of Rancho Cordova

From: Nelson\Nygaard

Date: April 20, 2018

Subject: Rancho Cordova Mobility Plan – Stakeholder Interview Key Takeaways

STAKEHOLDER INTERVIEW KEY TAKEAWAYS

The City of Rancho Cordova is updating its Mobility Plan—a public transportation plan to improve the quality of life for all who live and work in Rancho Cordova. As part of the outreach efforts for this plan, Nelson\Nygaard interviewed staff at organizations throughout Rancho Cordova and the Sacramento Area to get input on transportation needs, challenges, and opportunities for improvement. The following summarizes the key takeaways from these interviews.

Overview

Common themes that arose from these interviews:

- **Mobility options** – Some of the individuals interviewed represent organizations that provide services to people that are less likely to be able to walk, or that have a need for greater mobility than current options offer.
- **Parking** – Many of the interviewees acknowledged that parking is too easy and inexpensive.
- **Flexible services** – People are interested in more flexible travel options, particularly those that support door to door service.
- **Public awareness of options** – People either do not know what services are available, or where to find information about their travel options.
- **Carpools** – In some cases better organization and information about carpools could encourage less SOV usage.
- **Perception of safety** – Pedestrian and bicycle activities were broadly viewed as being not as safe as driving due to perceived lack of facilities.
- **Proximity to transit** – Even where transit is somewhat proximate, it is either too awkward, or too time consuming to use.

Folsom Lake College – Rancho Cordova Center

Interview with Joyce Heiland, Educational Center Supervisor, and Brian Robinson, Dean

Key takeaways

- **No direct path between campuses is challenging.** Many Folsom Lake College students are required to travel between the main Folsom Lake College campus and the Rancho Cordova Center. It can take a while to take the Gold Line between the campuses.
- **Improvements to pedestrian safety are important.** Bike share does not seem like a good addition around the Rancho Cordova Center since it is located in a high traffic area. Pedestrian improvements would be useful though. People tend to roll through stop signs near the Rancho Cordova Center.
- **Interested in a rideshare program.** There is currently no formal rideshare program. This could be useful for students who have a flexible schedule.

National University

Interview with Denise Brandt, Community Relations

Key takeaways

- **Need for late night and reliable travel options.** Many students attend late night classes (i.e., between 5 and 10 p.m.). People who visit National University during the day may be taking time off work. They need reliable transportation since they do not have a flexible schedule.
- **Bike share could be useful.** National University staff has heard that the City is considering a bike share program. This could be useful for connecting people to the nearby light rail station.

Neil Orchard Senior Activities Center (CRPD)

Interview with Heather Schelske, Recreation Supervisor

Key takeaways

- **Interested in a dial-a-ride service.** Taxis are expensive and CRPD visitors are not the most familiar with Uber and Lyft. There is a paratransit service in Sacramento County but it is not the most reliable for CRPD visitors.
- **Need for education about how to use transit.** People are confused about how to use transit. It can be intimidating to know what service to use and which direction to go. It would be great to have access to technology (i.e., computers and smart phones) at CRPD so that staff could teach people how to use Uber, Lyft, and transit.
- **A direct connection to light rail would be helpful.** Light rail is close to CRPD but it is too far for our visitors to walk from. Having direct access to light rail via a bus or shuttle would be helpful for CRPD visitors.
- **Free transit for 55+ was useful.** People 55 years and older used to be able to get free rides on buses. Visitors to the CRPD liked that. This is not available anymore.

Rancho Cordova Adult Day Health Care Center Interview with Henry Horn, Program Director

Key takeaways

- **People like the features of paratransit service.** People like the door to door pickup, drop-off and personal assistance on the local paratransit service. These features are particularly important for older adults and persons with disabilities.
- **Additional transportation services would be useful.** Visitors to the Adult Day Health Care Center could benefit from a dial-a-ride service and ride-hailing services (e.g., Lyft, Uber) or taxis.

Sacramento State

Interview with Tony Lucas, Senior Director of Transportation, Parking, & Support Services

Key takeaways

- **Sacramento state is already in the process of moving forward with transportation technologies.**
 - The university is in the process of developing a formal rideshare program and potentially using a rideshare platform, such as Zimride, Scoop, or Waze.
 - They are working with the city and SACOG to develop an autonomous shuttle that would connect campus to light rail.
 - They have a shuttle system that includes two neighborhood routes. They are working with RT to replace those two neighborhood routes with microtransit.

San Joaquin Valley College

Interview with Amy Bianco, Campus Dean

Key takeaways

- **Some students are actively using rideshare.** Some students carpool with one another but there is no formal carpooling/ridesharing program.
- **Opportunity to promote/enhance light rail service.** Most students choose to drive since they are required to visit different clinical sites. It is surprising that light rail is not a more popular mode choice.

UC Davis Medical Center

Interview with Sarah Janus, TDM and Green Commute Coordinator of Parking & Transportation Services

Key takeaways

- **Almost 4% of the student/employee population commute from Rancho Cordova.** The following data was provided by UC Davis Medical Center.

Mobility Plan | Stakeholder Interview Key Takeaways
City of Rancho Cordova

Zip Code in RC	# of students/employees
95670	268
95827	126
95655	23
95742	134
Total coming from RC	551
University total	14,063
% coming from RC	3.836%

- **Need to make transit more competitive with driving.** It is difficult to make the case for transit. Transit to the UC Davis Medical Center location is not as direct and takes longer than driving. People have to transfer to a shuttle to get directly to campus. There is opportunity to work with local transit providers and enhance transit connections to campus.
- **Promoting the use of Uber and Lyft could have negative impacts.** The use of Uber and Lyft can actually increase trips and contribute to more congestion.
- **Interested in autonomous vehicles.** UC Davis is interested in using autonomous vehicles for an intercampus shuttle connection but does not currently have funding for this.
- **Interested in using bike share for intercampus transportation.** Jump bikes will be coming to the region. Using the same bike share system on campus would be a good option for intercampus transportation.

APPENDIX B:
CITY COUNCIL
MEETING NOTES



RANCHO CORDOVA TRANSPORTATION MASTER PLAN

Council Briefing

April 2, 2018

Key Messages

1. The plan needs to embrace an unknown future. Current trends in non-SOV transportation indicate several possible futures, but no certainty in direction. Some key trends:
 - App-based rideshare (like Uber and Lyft) have changed the way many people think about their mobility.
 - Autonomous vehicles, be they personal, app-based rideshare, or transit system, will change what we can do with mobility.
 - For many, if not all, parts of Rancho Cordova—fixed route services with big buses seem to be fading into history and may not be an effective tool.
 - The CordoVan meets some needs, but misses many others in established neighborhoods.

Plan implications: Need to consider several future scenarios and make investments in plan elements that can adapt to a future that is less certain than what was assumed in 2006.

2. We need to ensure that all parts of Rancho Cordova can be connected locally and regionally and ensure that established neighborhoods, new neighborhoods, and business centers are connected for local travel as well as regional travel.
 - While the overall statement is about geography, there is equal concern about ensuring mobility for seniors and low income residents. There was a suggestion to consider ADA Paratransit as part of Rancho Cordova's services.
 - Mobility means more than convenience, it also means safety, comfort, and cost to the individual.
 - For business areas TMA's are a necessary part of the picture and need to continue to advocate for people using options to reach employment locations in Rancho Cordova.

Plan implications: Plan needs to comprehensively address all needs in the community regardless of modal considerations.

3. More traditional transit modes need to be appropriate to the context and demand in Rancho Cordova. Higher capacity modes such as BRT and Streetcars seem to be an unlikely "fit."
 - The idea of connecting the major parts of the community with an easy to use and easy to understand mode is an important consideration even though a streetcar may, or may not, be in Rancho Cordova's future.

- Planning to provide transit priority at key locations may make sense if the service is high frequency and is designed to move higher volumes of people. For example, a Gold Line LRT grade separation over Zinfandel, or traffic signal priority for buses leaving Butterfield Station.
- Dedicated lanes as an element of transit do not seem to be a good investment in right of way utilization.

Plan implications: Need to maintain concept of a “signature route” and transit priority needs to be strategically applied, rather than being a comprehensive concept.

4. Transportation and land use context need to bring into focus. While not really an issue to be solved in the master plan, the idea of evolution of concept could be introduced.
 - Future zoning and building codes should consider different parking requirements as the actual need for parking is likely to shrink in the future.
 - Pedestrian access should be more thoroughly considered in new development or re-development.

Plan implications: Need to include a chapter on mobility decisions and how those integrate with land use.

5. The future is not easily predicted, which also implies that our financial forecasting needs to be adaptable.
 - We need to establish a vision for future mobility that is more dependent on performance than mode and investment.
 - Regional transportation funding may not be currently directed in the most efficient or equitable manner, especially with respect to the needs of Rancho Cordova

Plan implications: The plan needs to focus more on setting performance goals and less on how to finance the plan.

Key Understandings from Individual Council Members

City Council Member #1

- The City of Sacramento's approach to bike share has soured the potential
- Mobility/transportation needs in the bay area are driven by cost and congestion. We have some congestion in Rancho Cordova but parking cost is not a key driver for us.
- Some new technologies may not be practical in Rancho Cordova.
- How will the plan affect low income earners?
- The days of fixed routes are numbered.
- RT ridership increased with the opening of the arena.
- Unless it becomes so inconvenient, folks are going to use Uber/Lyft (instead of traditional transit services).
- Do we need to reserve right of way for BRT or rail that make our roads wider than they already are?
- As we build out commercial and retail, we need smaller parking lots and to change parking standards.
- Rancho Cordova needs a better Jobs/Housing balance.
- Menlo Park example: Rather than building a \$25m parking structure the city provided vouchers for Uber/Lyft.
- Zoning code and development standards need to be considered.

City Council Member #2

- Bus lanes have not proven to be particularly effective in Sacramento. The ones on Watt Avenue seem to be a failed experiment.
- Sacramento doesn't have transit to the airport.
- Transit needs to react to our aging communities.
- Talk to developers about how they intend to serve millennials and active seniors.
- Our roads are prepared for autonomous vehicles. Willing to have Uber come to Rancho Cordova to test autonomous vehicles.

City Council Member #3

- The CordoVan needs to also serve established communities.
- Will the entire City of Rancho Cordova be served by the Lyft TDM project? (Assume this is a reference to the Mobility Lab project)
- Look at SmaRT Ride (Transloc/Via) and see how it's going. Is there potential for Rancho Cordova?
- Get people from Ambassador Drive (by American River Parkway) to the Gold Line.
- The city is sensitive to changes in the economy. Our city went nose down in 2008—big impact.
- Look at economy and speculate on future.
- Want people to be comfortable and safe with these services.
- Want Mather Mills RT Station to be the best (comfort and safety).

City Council Member #4

- We want to be free to use our imagination. This is one aspect of our 2006 plan that is so great. Because it is NOT fiscally constrained, it allowed us to dream big.
- BRT would not seem to be as useful concept for Rancho Cordova. We need right of way space for cars or landscaping.
- Why are we still building big buses?
- RT ridership is rebounding due to the arena. Older folks are using transit as they feel safe with the patrol officers and ticket checkers.
- Need to move older folks who don't want to drive and can't get on the bus.
- As we do with homes, build transit system that is useable by seniors.
- Sad about bike share (Lime bike cancelled).
- RT is evaluating origins and destination in their planning work. There are better service planning approaches.
- West Jackson corridor is paying a transit fee. Need to integrate their services

City Council Member #5

- We need to add a consideration for Paratransit. The service model should be changed to reduce cost and to improve service. Concern about reserving it 24 hours early and how drop off and pick up can't be within 2 or 3 hours. Move toward a TransLoc type model. Legal issues understood. I'd suggest that Rancho Cordova take the Paratransit funding and Rancho Cordova provide the service ourselves using Uber or Lyft or other technologies. Modify paratransit to include Sunrise-Douglas area.
- Old big buses are dead, for Rancho Cordova. We do not have the population/employment densities needed to support these vehicles in the older neighborhoods in the City.
- We have very large parking lots that are free—this works against building ridership.
- We need to pursue new technologies—opportunities along Folsom Boulevard and opportunities for our 50k employees. Subsidized rideshare in the City for increasing ridership with better service and less is possible with new technologies.
- RT and SACOG need to focus more on Rancho Cordova. They are focusing on Sac City, West Sac, and Davis. We are moving ahead of these communities on a lot of initiatives. RT needs a serious reform.
- TMA funding is changing. SACOG has provided a year extension from their original plan to end the programs this summer. It will likely not go beyond the extended time period. TMA staff are leaving this summer and we have elementary school programs and vanpools in Rancho Cordova to consider. SACOG will not be able to replace the TMA's in their work.
- James Corless is working on Intelligent Transit Options. Barry Broom, Greater Sacramento Economic Development, is tracking this work and some feel that Sacramento is behind on implementing new technologies.

APPENDIX C:
ONLINE SURVEY
PROMOTIONAL
MATERIALS

RANCHO CORDOVA WANTS TO HEAR FROM YOU!

The City of Rancho Cordova is updating its Mobility Plan—a public transportation plan to improve the quality of life for all who live and work in Rancho Cordova.



We need your input to help us understand how people get around Rancho Cordova, and what would improve mobility throughout the city.

Please visit <https://www.surveymonkey.com/r/MobilityPlan> to take our short survey by **April 27th**. Your opinions are critical to making this project a success.

RANCHO CORDOVA WANTS TO HEAR FROM YOU!

The City of Rancho Cordova is updating its Mobility Plan for public transportation. We need your input to help us understand how people get around Rancho Cordova, and what would improve mobility throughout the city.

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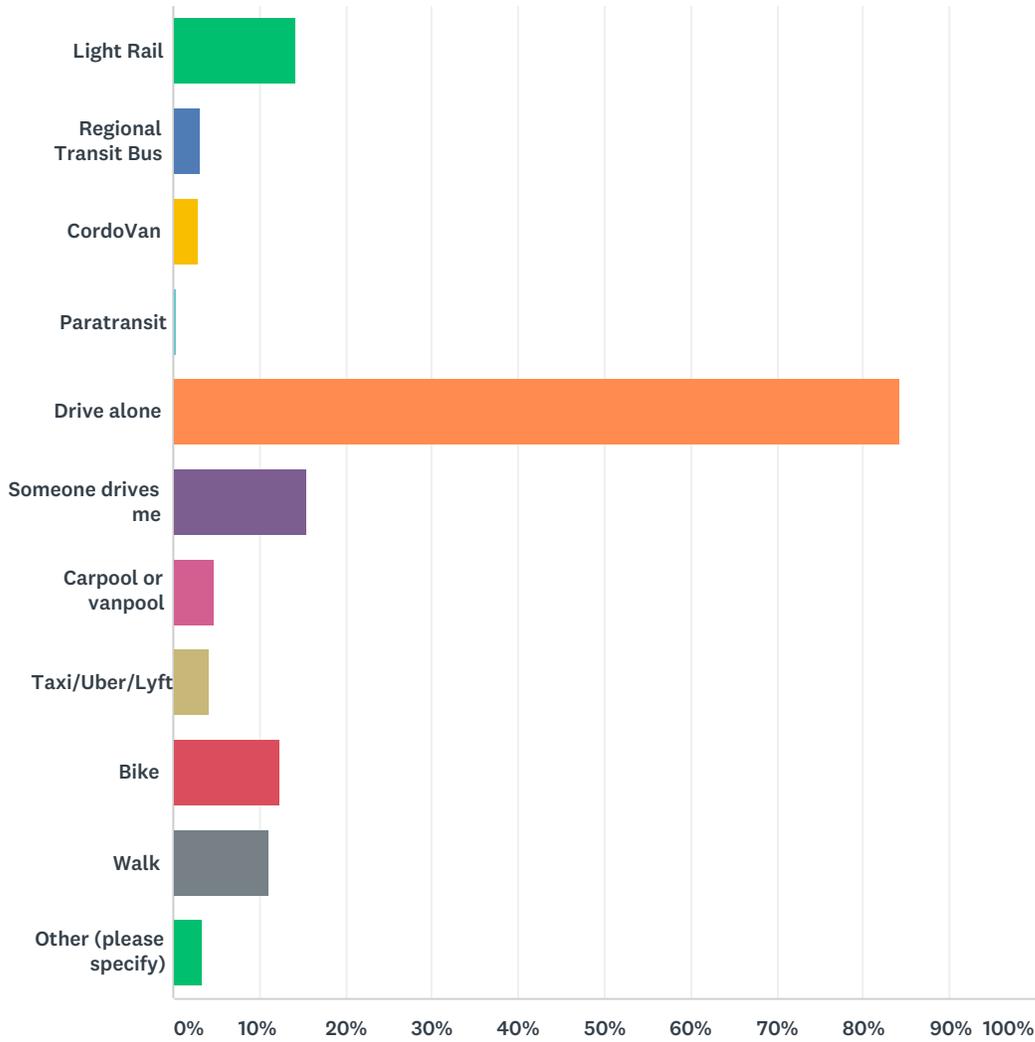
Please visit <https://www.surveymonkey.com/r/MobilityPlan> to take our short survey by **April 27th**. Your opinions are critical to making this project a success.



APPENDIX D:
ONLINE SURVEY
ANALYSIS

Q1 What are your primary modes of transportation to/from/within Rancho Cordova? Choose up to two.

Answered: 501 Skipped: 0



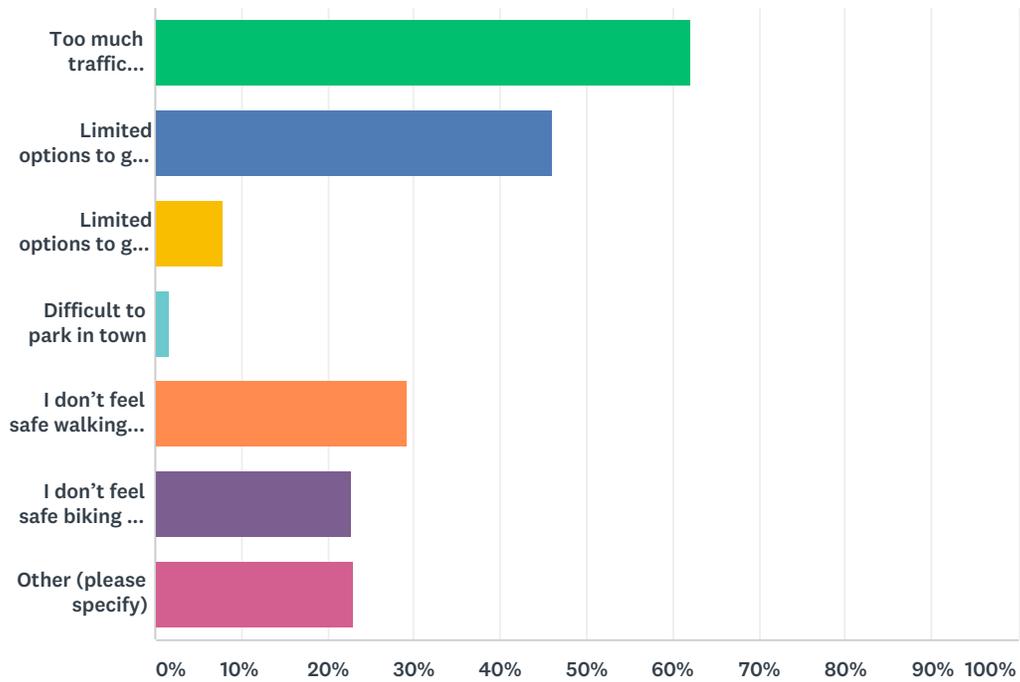
ANSWER CHOICES	RESPONSES	
Light Rail	14.17%	71
Regional Transit Bus	3.19%	16
CordoVan	2.99%	15
Paratransit	0.40%	2
Drive alone	84.23%	422
Someone drives me	15.57%	78
Carpool or vanpool	4.79%	24
Taxi/Uber/Lyft	4.19%	21
Bike	12.38%	62

Rancho Cordova Mobility Plan

Walk	11.18%	56
Other (please specify)	3.39%	17
Total Respondents: 501		

Q2 What are the greatest challenges to getting around in Rancho Cordova? Choose up to three.

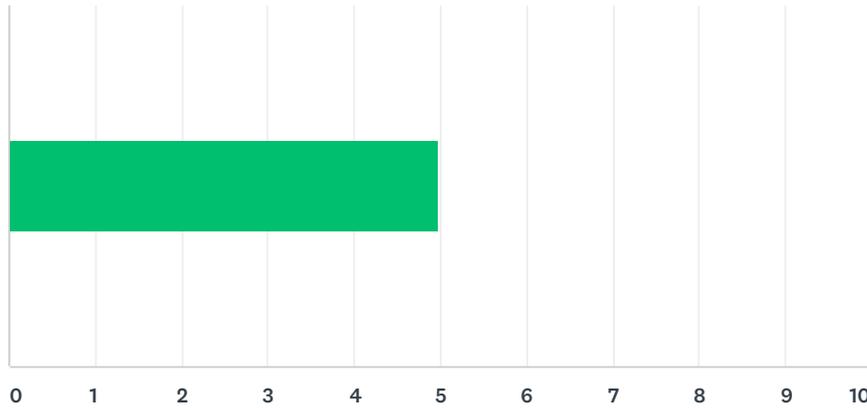
Answered: 501 Skipped: 0



ANSWER CHOICES	RESPONSES	
Too much traffic congestion near Hwy 50	62.08%	311
Limited options to get around without a car	46.11%	231
Limited options to get around that I can afford	7.98%	40
Difficult to park in town	1.60%	8
I don't feel safe walking in town	29.34%	147
I don't feel safe biking in town	22.75%	114
Other (please specify)	22.95%	115
Total Respondents: 501		

Q3 On a scale of 1 to 10, how useful is public transportation in Rancho Cordova for your friends, family, and community in general (even if you don't personally ride bus or light rail today)?

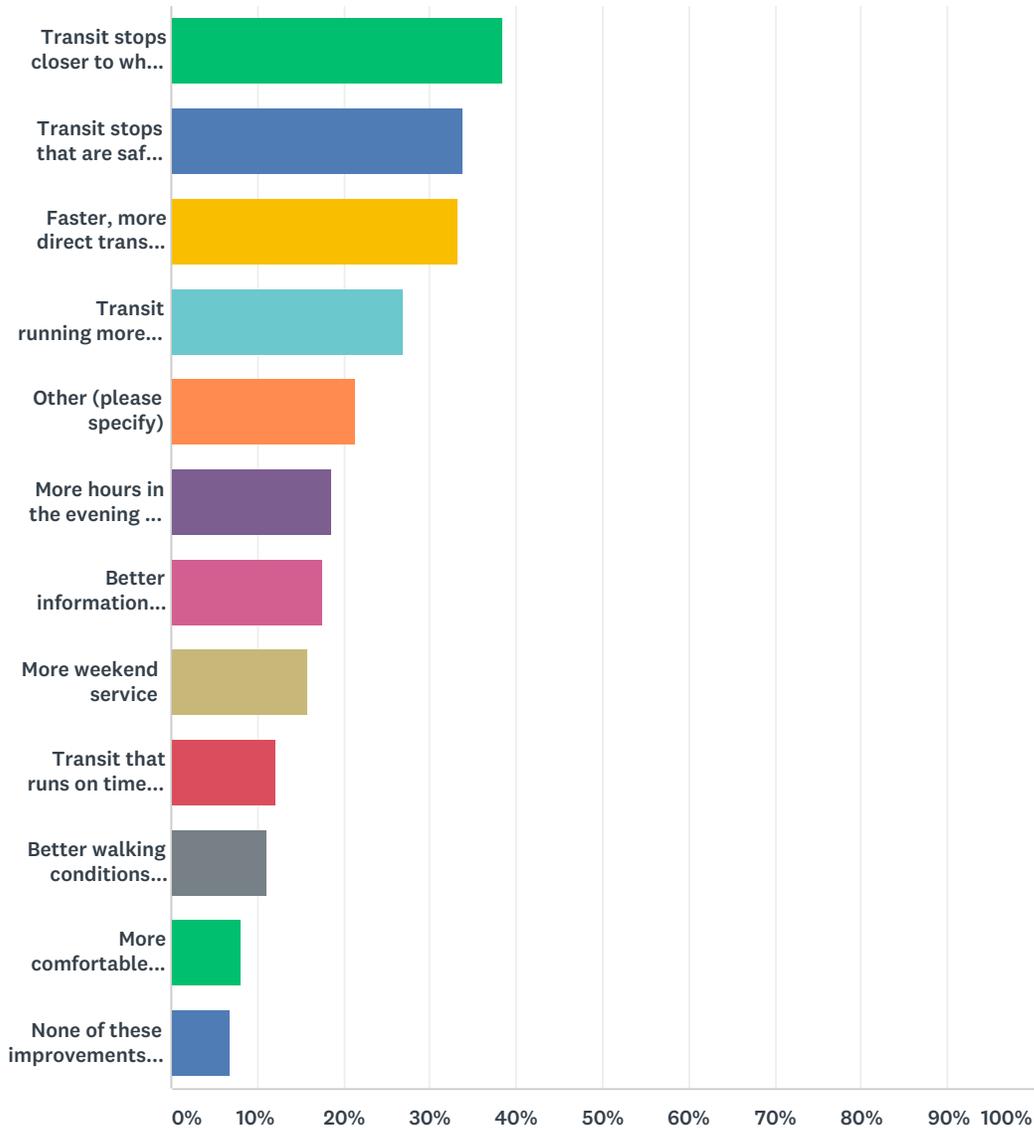
Answered: 399 Skipped: 102



ANSWER CHOICES	AVERAGE NUMBER	TOTAL NUMBER	RESPONSES
	5	1,984	399
Total Respondents: 399			

Q4 What enhancements do you believe would encourage more people to ride public transit in Rancho Cordova more often? Choose up to three.

Answered: 446 Skipped: 55



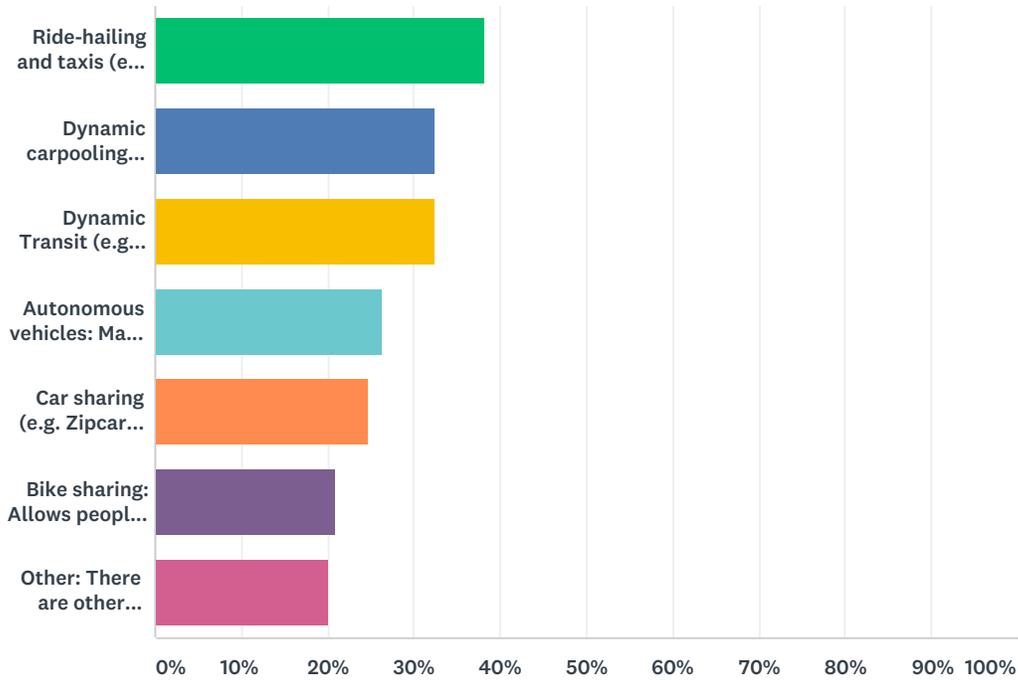
ANSWER CHOICES	RESPONSES	
Transit stops closer to where people live or want to go	38.57%	172
Transit stops that are safe, comfortable, and clearly marked	33.86%	151
Faster, more direct transit that is competitive with automobile travel times	33.18%	148
Transit running more frequently	26.91%	120
Other (please specify)	21.30%	95
More hours in the evening or morning	18.61%	83
Better information about how to ride transit	17.49%	78

Rancho Cordova Mobility Plan

More weekend service	15.92%	71
Transit that runs on time and avoids car congestion	12.11%	54
Better walking conditions (sidewalks) to/from transit stops	10.99%	49
More comfortable trips on transit	8.07%	36
None of these improvements would encourage more people to ride transit more often	6.95%	31
Total Respondents: 446		

Q5 In the future, which mobility options do you think are the most important for the City of Rancho Cordova? Choose up to three.

Answered: 446 Skipped: 55



ANSWER CHOICES	RESPONSES
Ride-hailing and taxis (e.g. Lyft, Uber): Flexible services that connect drivers with passengers at the request of passenger.	38.34% 171
Dynamic carpooling (e.g. Waze Carpool, Scoop): Real-time carpooling services that do not require pre-scheduling nor long-term participation commitment.	32.51% 145
Dynamic Transit (e.g. TransLoc, Via, Chariot, Bridj): On demand, shared ride vehicles operated publicly or privately, typically with vans or small buses, that provide service on dynamically generated routes.	32.51% 145
Autonomous vehicles: May be deployed in a variety of formats, such as autonomous buses that follow fixed routes, autonomous cars that are a driverless version of current ride-hailing services, and personal autonomous vehicles.	26.46% 118
Car sharing (e.g. Zipcar): Allows people to rent shared vehicles for short periods of time, typically by the hour or minute.	24.66% 110
Bike sharing: Allows people to rent shared bikes for short periods of time—typically by the hour or minute—and short-distance point-to-point trips.	20.85% 93
Other: There are other mobility options that I think are the most important for the City of Rancho Cordova. Please specify.	20.18% 90
Total Respondents: 446	

Q6 Is there anything else you would like to tell us that would help the City of Rancho Cordova better serve the mobility needs of Rancho Cordova residents, employees, and visitors?

Answered: 186 Skipped: 315

Q7 Where do you live?

Answered: 423 Skipped: 78

ANSWER CHOICES	RESPONSES	
Cross streets, neighborhood, or Zipcode:	100.00%	423

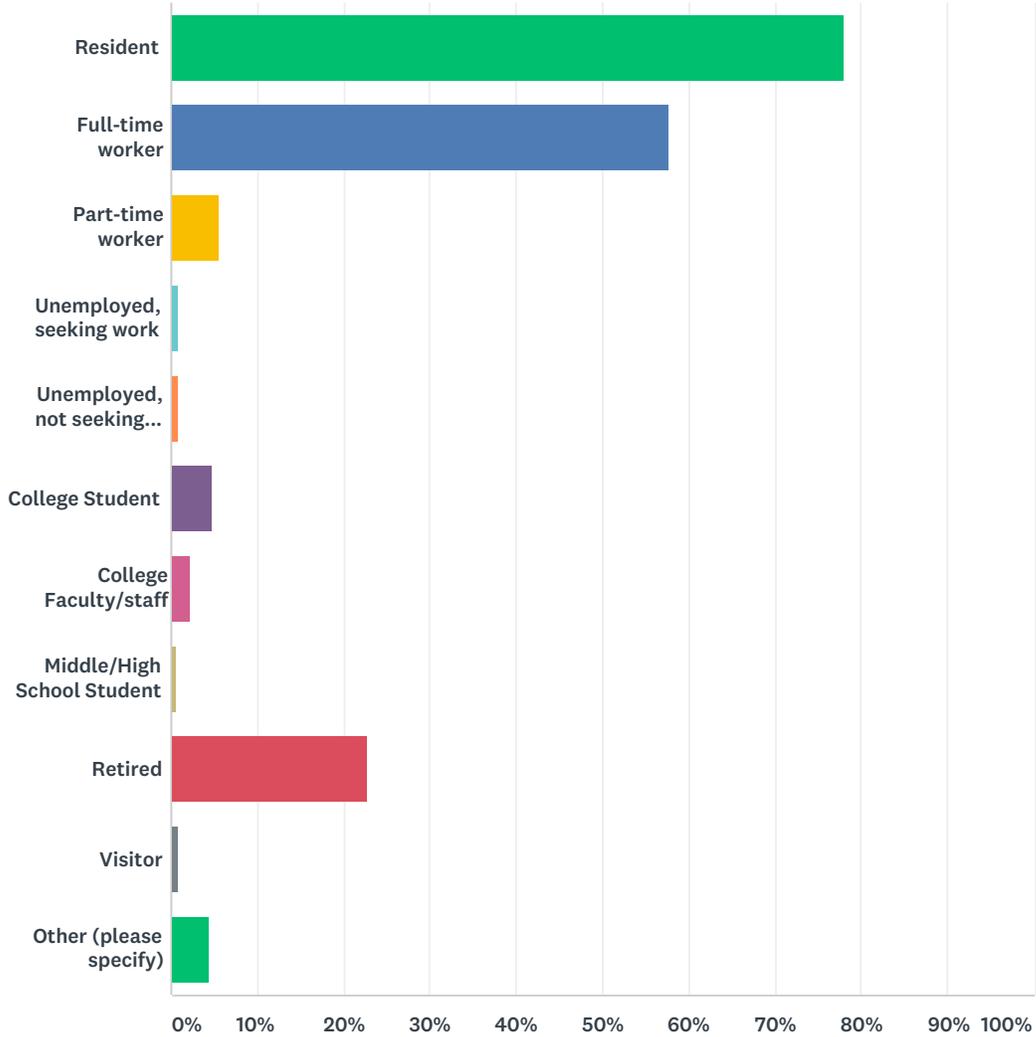
Q8 Where do you work or go to school?

Answered: 392 Skipped: 109

ANSWER CHOICES	RESPONSES	
Cross streets, neighborhood, or Zipcode:	100.00%	392

Q9 Are you... (Select all that apply)

Answered: 428 Skipped: 73



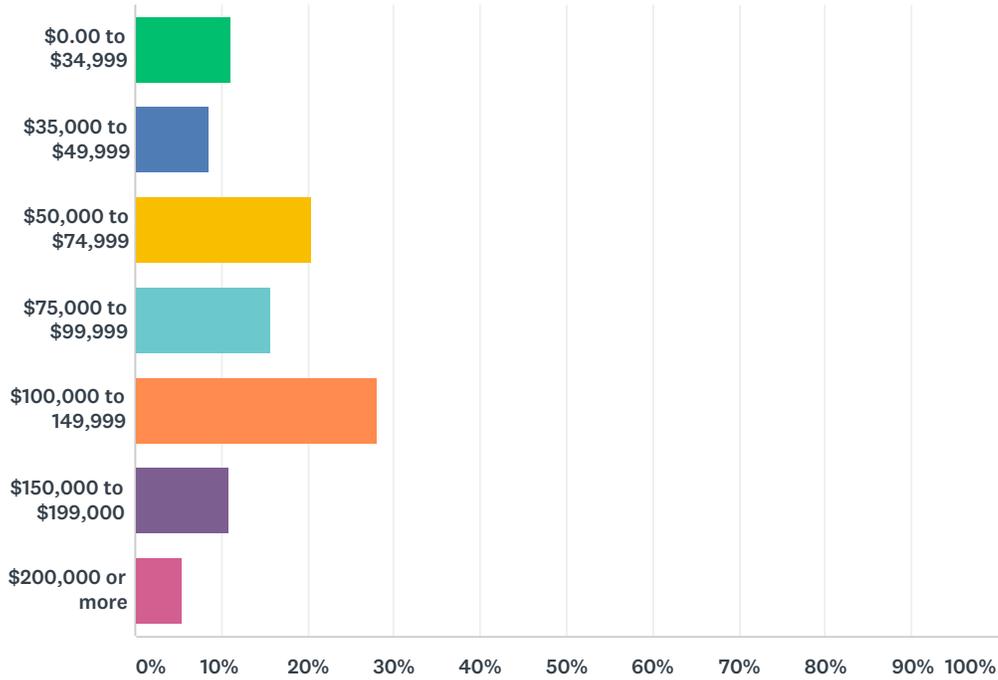
ANSWER CHOICES	RESPONSES	
Resident	78.04%	334
Full-time worker	57.71%	247
Part-time worker	5.61%	24
Unemployed, seeking work	0.93%	4
Unemployed, not seeking work	0.93%	4
College Student	4.91%	21
College Faculty/staff	2.34%	10
Middle/High School Student	0.70%	3
Retired	22.90%	98
Visitor	0.93%	4

Rancho Cordova Mobility Plan

Other (please specify)	4.44%	19
Total Respondents: 428		

Q10 What is your total annual household income, before taxes?

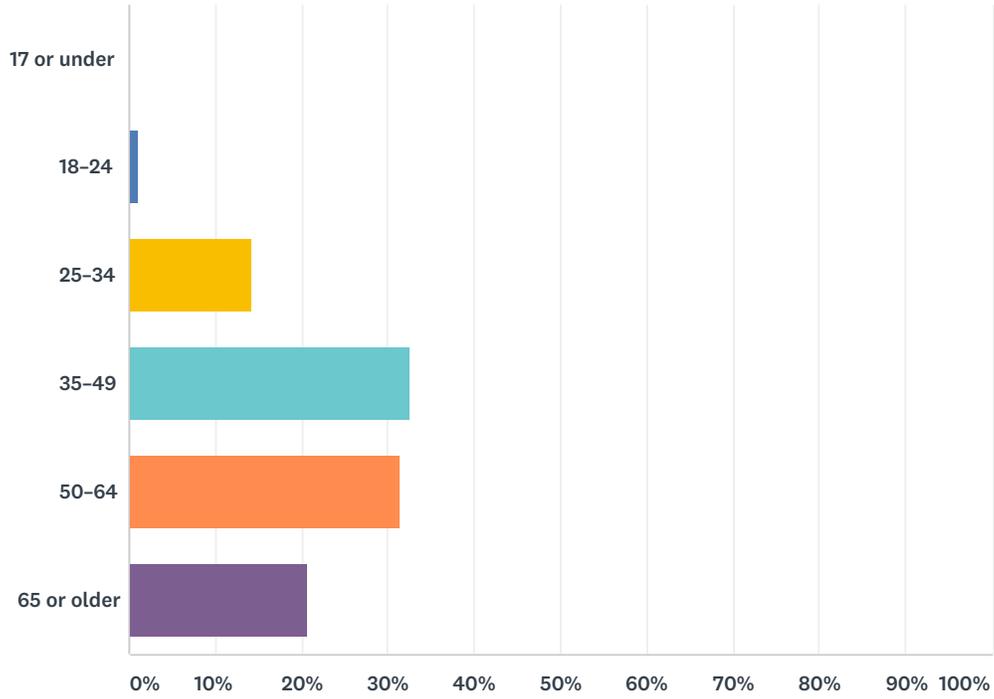
Answered: 397 Skipped: 104



ANSWER CHOICES	RESPONSES	
\$0.00 to \$34,999	11.08%	44
\$35,000 to \$49,999	8.56%	34
\$50,000 to \$74,999	20.40%	81
\$75,000 to \$99,999	15.62%	62
\$100,000 to \$149,999	27.96%	111
\$150,000 to \$199,000	10.83%	43
\$200,000 or more	5.54%	22
TOTAL		397

Q11 What is your age?

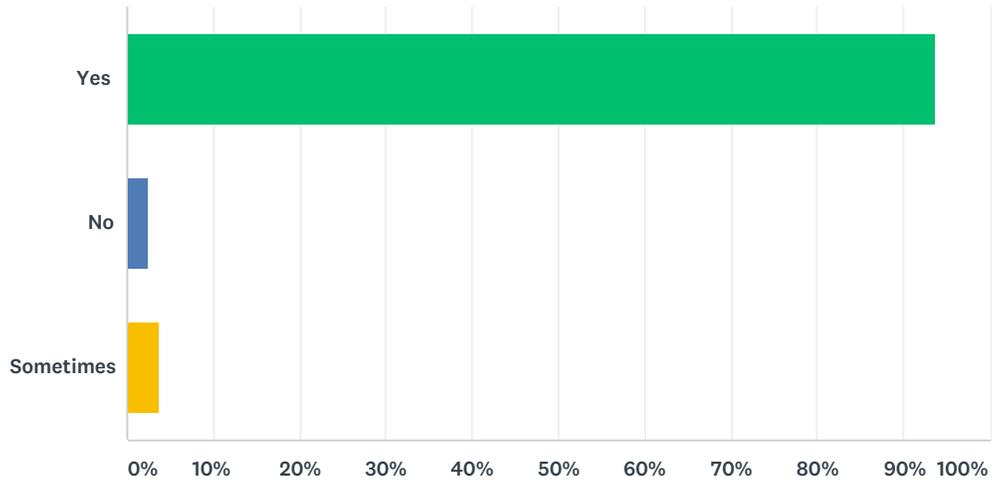
Answered: 417 Skipped: 84



ANSWER CHOICES	RESPONSES	
17 or under	0.24%	1
18-24	0.96%	4
25-34	14.15%	59
35-49	32.61%	136
50-64	31.41%	131
65 or older	20.62%	86
TOTAL		417

Q12 Do you own or have access to a car?

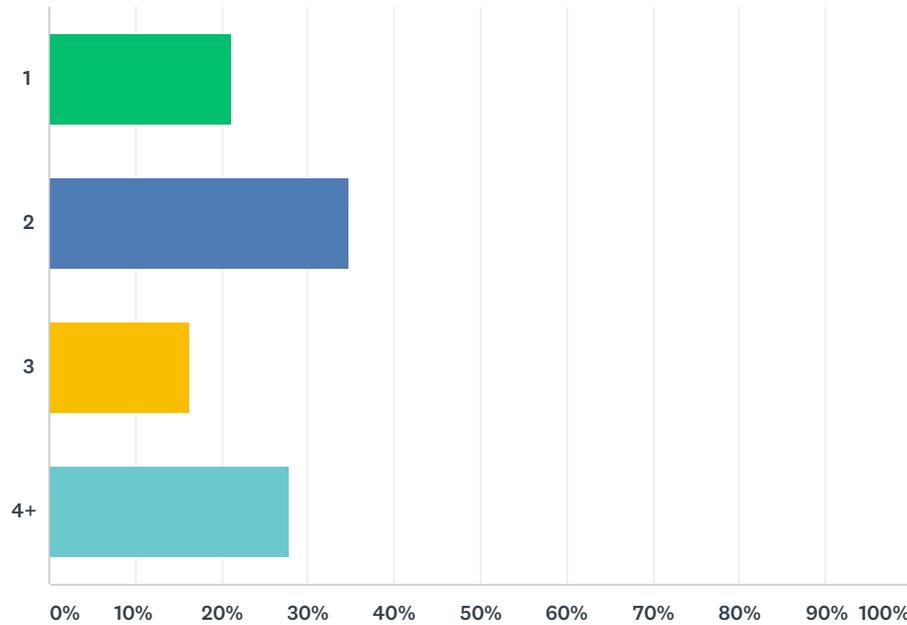
Answered: 427 Skipped: 74



ANSWER CHOICES	RESPONSES	
Yes	93.68%	400
No	2.58%	11
Sometimes	3.75%	16
TOTAL		427

Q13 How many people are in your household?

Answered: 423 Skipped: 78



ANSWER CHOICES	RESPONSES	
1	21.04%	89
2	34.75%	147
3	16.31%	69
4+	27.90%	118
TOTAL		423



RANCHO CORDOVA TRANSPORTATION MASTER PLAN

Online Survey Analysis

Question 6 Analysis

Survey question: Is there anything else you would like to tell us that would help the City of Rancho Cordova better serve the mobility needs of Rancho Cordova residents, employees, and visitors?

Purpose of this analysis: What were the key takeaways from the responses to this question?

Category	Key Takeaways
Older Adults & Person with Disabilities	<ul style="list-style-type: none"> ▪ Need a service geared towards seniors and persons with disabilities. Paratransit can have long wait times.
Street Lights & Traffic	<ul style="list-style-type: none"> ▪ Street light timing along Sunrise Blvd needs to be reassessed ▪ Douglas Road near Sunridge Park, at Timberland, and Elmanto Drive may need a street light.
Transit Operations & Coverage	<ul style="list-style-type: none"> ▪ Desire for more frequent, reliable transit with reduced travel times ▪ Consider later hours for weekdays and weekends ▪ Consider expanding the CordoVan or adding a new local services that serves: <ul style="list-style-type: none"> ○ Business park shuttle for employees ○ Network gaps in Mather Independence and Anatolia area
Affordability	<ul style="list-style-type: none"> ▪ More affordable transit. Consider fareless system.
Bus Stops	<ul style="list-style-type: none"> ▪ Enhance bus stops with shelters ▪ Cleaner, safer bus stops ▪ More convenient bus stops, particularly at: <ul style="list-style-type: none"> ○ New development sites ○ New shopping center ○ From Rancho Murieta down Jackson Hwy
Bike Facilities	<ul style="list-style-type: none"> ▪ More off road bike paths and bike lanes. ▪ Improve access to and extend the existing bike trail ▪ Safe bike routes to get people to other mass-transit hubs (e.g. light rail stations). ▪ Improve safety and awareness with signage and painted bike lanes ▪ More secure bike parking at public places such as parks, hospitals, light rail stations
Pedestrian Facilities	<ul style="list-style-type: none"> ▪ Sidewalks at: <ul style="list-style-type: none"> ○ Pedro, Charbono, Barbara and Aramon Ways ○ Folsom Blvd to Hazel ▪ ADA compliant sidewalks with curb ramps
Bike & Ped Crossings	<ul style="list-style-type: none"> ▪ Safer bike crossing at White Rock Rd.

Online Survey | Q6 and Q12 Analysis
City of Rancho Cordova

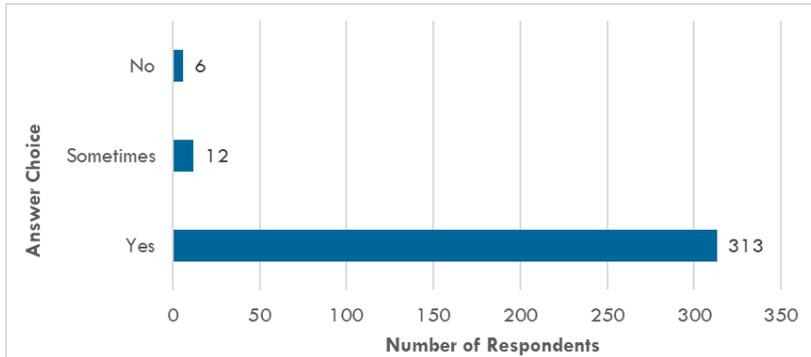
Category	Key Takeaways
	<ul style="list-style-type: none"> ▪ Safer crossings at: <ul style="list-style-type: none"> ▪ Hwy 50 on Zinfandel ▪ Sunrise Blvd ▪ Consider bike/ped bridges: <ul style="list-style-type: none"> ○ Across river nearer to Carmichael ○ Over Sunrise between Gold River and Sun River
Roads	<ul style="list-style-type: none"> ▪ Repair roads ▪ More roadway connections between: <ul style="list-style-type: none"> ○ Rancho Cordova Parkway to Douglas ○ Kiefer Blvd, Mather Blvd, and Douglas Road
TOD	<ul style="list-style-type: none"> ▪ TOD development along light rail ▪ Develop retail and dining near Anatolia/Kavala Ranch to reduce trips.
Safety and Comfort	<ul style="list-style-type: none"> ▪ Safety concerns <ul style="list-style-type: none"> ○ In older parts of Rancho Cordova ○ Along Folsom Blvd ○ Near Mather field exit area ○ At Zinfandel light rail station ▪ Add security at bus stops and light rail stations ▪ Clean light rail stations and vehicles ▪ More lighting
Wayfinding & Information	<ul style="list-style-type: none"> ▪ More of the new directional signs ▪ Lack of education about what services are available
Emerging Mobility	<ul style="list-style-type: none"> ▪ Promote rideshare ▪ More EV charging ▪ Need dynamic transportation ▪ Limebike
Enforcement	<ul style="list-style-type: none"> ▪ More enforcement for speeding, running red lights, running stop signs, blocked bike lanes, bike laws

Question 12 Analysis

Survey question: Do you own or have access to a car?

Purpose of this analysis: How many of these respondents are residents?

In question 9 of the survey, respondents identified themselves from a series of characteristics, one of which was resident. Of the 501 survey respondents, 334 of them identified as a resident in question 9. Of those 334 respondents, 331 also answered question 12. Most of these respondents (313) indicated that they own or have access to a car. Twelve respondents who identified as a resident indicated they own or have access to a car sometimes, and six respondents said they do not own or have access to car.



APPENDIX E:
TECHNICAL
MEMORANDUM
1: NEEDS AND
OPPORTUNITIES



RANCHO CORDOVA

Existing Conditions

March 2018

Table of Contents

		Page
1	Introduction.....	E-4
2	Plan and Policy Review.....	E-5
3	Market Analysis.....	E-18
	Population	E-18
	Employment.....	E-27
	Land use and Development	E-29
	Travel Patterns	E-32
4	Service Analysis	E-34
	System Overview.....	E-34
	Ridership Trends.....	E-38
	Performance.....	E-42
5	Other considerations.....	E-45
6	Key Findings.....	E-50
7	Appendix A Land Use Maps.....	E-52

Table of Figures

			Page
Figure 1	Plan and Policy Review Documents.....		E-5
Figure 2	Jobs and Households in Rancho Cordova		E-16
Figure 3	Regional Housing and Employment within Transit Priority Areas, 2012 – 2036 ...		E-17
Figure 4	Population Trends, 2000 – 2016.....		E-18
Figure 5	Population Density, 2010.....		E-19
Figure 6	2035 Population Density Forecast		E-20
Figure 7	Rancho Cordova Households by Median Household Income, 2000 – 2016.....		E-21
Figure 8	Rancho Cordova Households by Median Household Income, 2000 – 2016.....		E-21
Figure 9	Median Household Income, 2010.....		E-22
Figure 10	Poverty in Rancho Cordova , 2000 – 2016		E-23
Figure 11	Households Below Poverty Level, 2010.....		E-23
Figure 12	Households with Zero Vehicles, 2000 – 2016.....		E-24
Figure 13	Households with Zero Vehicles, 2010.....		E-25
Figure 14	Older Adult Population, 2000 – 2016.....		E-25
Figure 15	Population Age 65 and Older, 2010		E-26
Figure 16	Youth Population, 2000 – 2016.....		E-26
Figure 17	Population Age 15 to 24, 2010.....		E-27
Figure 18	Employment Trends, 2010 – 2016		E-27
Figure 19	Employment Density		E-28
Figure 20	Rancho Cordova Top 30 Employers with Most Employees		E-29
Figure 21	Rancho Cordova Zoning		E-31
Figure 22	Where Employees in Rancho Cordova Live		E-32

Transit Master Plan | Existing Conditions
City of Rancho Cordova

Figure 23	Where Employed Residents Work	E-33
Figure 24	Rancho Cordova Public Transportation System Map	E-37
Figure 25	Average Daily Boardings in Rancho Cordova, 2013-2017	E-38
Figure 26	CordoVan Ridership by Month and Route, 2014 - 2017	E-40
Figure 27	Bus Ridership in Rancho Cordova by Stop	E-41
Figure 28	Average Daily Riders per Revenue Hour in Rancho Cordova.....	E-42
Figure 29	Weekday On-Time Performance	E-43
Figure 30	Weekday Transit Performance Summary, 2017	E-44
Figure 31	Mobility Service Examples by Type	E-45
Figure 32	Rancho Cordova General Plan Map	E-53
Figure 33	Rancho Cordova Future Land Use Map	E-54

1 INTRODUCTION

The City of Rancho Cordova is updating its Transit Master Plan (TMP) to develop a long-range vision for public transportation services in Rancho Cordova. Since the last plan in 2006, population, jobs, and transportation services have changed dramatically. The TMP will describe how the City will prioritize and leverage resources to provide a public transportation system that best meets the needs of residents, visitors, and employees over the next 20 years. The plan will guide future leaders and stakeholders to public transportation strategies that best advance the shared community vision.

This technical memorandum analyzes trends in demographics, socioeconomics, land use, and transportation systems to help identify challenges and opportunities for mobility in Rancho Cordova. This memorandum is organized into the following sections:

Plan and Policy Review summarizes plans and policy documents that may influence the TMP over the short- and long-term.

Market Analysis provides information about changes in demographic and socioeconomic growth in the City and greater Sacramento region.

Service Analysis details the public transportation services available in Rancho Cordova and how the services have performed in the recent past.

Other Considerations provides an overview of emerging service models and technologies likely to change the way public transportation is provided and their anticipated role in cities like Rancho Cordova.

Key Findings summarizes information and data gleaned from this memorandum, with particular consideration to how the information can influence Rancho Cordova's vision for transportation services, and how future strategies will be developed in the Transit Master Plan.



2 PLAN AND POLICY REVIEW

This section provides a summary of regional and local transportation and land use plans. The review identifies relevant goals and policies related to local public transportation, and highlights short- and long-range expectations affecting travel behavior and public transportation needs in Rancho Cordova. Figure 1 summarizes key issues or takeaways from relevant plan or policy documents. These notes provide a quick understanding of what issues are important for the City’s next TMP. The text following Figure 1 provides greater detail on each document.

Figure 1 Plan and Policy Review Documents

Document	Key Issues and Takeaways
City of Rancho Cordova Plans	
General Plan Circulation Element, 2016	<ul style="list-style-type: none"> ▪ Primary public transportation markets include employees, seniors, youth, and people with disabilities ▪ Pedestrian and bicycle connections to activity centers and modes are important to future development ▪ Identifies connections between existing and new development as a top need ▪ Goals and policies support integration of public transportation into future land use planning and development
General Plan Land Use Element, 2012	<ul style="list-style-type: none"> ▪ Emphasizes the need to create land use patterns conducive to public transportation, walking, and biking ▪ Includes actions to create land use development conditions for transit-oriented development near major transit routes ▪ Specific plans identify future medium- to high-density residential and commercial development areas conducive to efficient fixed-route public transportation
Transit Master Plan, 2006	<ul style="list-style-type: none"> ▪ Serves as a supplemental document expanding on the City’s General Plan ▪ Long-term goals, policies, and actions for public transportation offering local and regional connectivity, inviting environment, and clear customer information ▪ Presents specific service models and vehicle technology for a built out local and regional public transportation network ▪ Over \$100 million worth of future strategies included a central streetcar route (Signature Route), a connecting network of Bus Rapid Transit routes, and local circulator routes ▪ Details three phases of network development, including two new Gold Line stations

Transit Master Plan | Existing Conditions
City of Rancho Cordova

Document	Key Issues and Takeaways
Rancho Cordova Transit Service Plan, 2012	<ul style="list-style-type: none"> ▪ Service analysis resulting in adjustments to Routes 176 and 177 as operated today
Rio Del Oro Specific Plan, 2016	<ul style="list-style-type: none"> ▪ Two Regional Town Centers and two employment centers are located within the Plan Area ▪ Medium (MD) and high density residential (HD) are located throughout the area, within one mile of regional centers
Folsom Boulevard Specific Plan, 2013	<ul style="list-style-type: none"> ▪ High density corridor including mixed use (commercial, residential, office industrial), medium density residential, and high density residential ▪ Assumes a new transit station at Horn Road
SunCreek Specific Plan, 2013	<ul style="list-style-type: none"> ▪ Specific plan area will accommodate 5,104 dwelling units, generate 1,330 jobs, and 13,530 new residents by 2030 ▪ Medium and high residential density nodes provide higher propensity for non-automobile travel choices. There is a regional town center planned in the northeast corner of the plan area
SunRidge Specific Plan, 2002	<ul style="list-style-type: none"> ▪ Low density area primarily covered by single family residential and green space ▪ Proposes 9,886 dwelling units, ranging from single family dwellings to apartments
Sacramento Regional Transit District (RT) Plans	
TransitRenewal 2012 – 2017, 2012	<ul style="list-style-type: none"> ▪ Details a regional five year service improvement plan ▪ Travel demand patterns indicate strongest demand between Rancho Cordova and Gold River by automobile and between Rancho Cordova and Sacramento by public transit ▪ There is additional travel demand between Rancho Cordova and Southeastern Sacramento ▪ Identified several short-term improvement strategies for routes serving Rancho Cordova
TransitAction Plan, 2009	<ul style="list-style-type: none"> ▪ Proposes ‘Hi-Bus’ network investments in Rancho Cordova ▪ The high frequency, high capacity, high speed bus routes included Bradshaw, Sunrise and Jackson Highway corridors that are planned but not implemented ▪ Includes the City’s 2006 proposed streetcar service, though ranked medium to low priority

Document	Key Issues and Takeaways
Strategic Plan 2015-2020, 2015	<ul style="list-style-type: none"> ▪ Provide vision, goals, and performance indicators to guide the agency over the short- and long-term ▪ Agency growth goals included: <ul style="list-style-type: none"> - Improve access within and between communities in a cost-effective manner - Increase transit market share - Adjust to legislative & regulatory changes and stakeholder & community initiatives and support complementary efforts ▪ Identified strategy area include: service demand, safety and security, system preservation, funding, workforce development, and legislative and regulatory changes
Sacramento Area Council of Governments (SACOG) Plans	
Metropolitan Transportation Plan/ Sustainable Communities Strategy, 2016	<ul style="list-style-type: none"> ▪ Summarizes regional development priorities and 20-year investment strategy to achieve long-range goals to meet State and Federal requirements ▪ Projections indicate significant growth in the region by 2036 and identify significant investments in transit to reduce per capita vehicle miles traveled ▪ Rancho Cordova estimated to add approximately 28,000 new housing units and 25,300 new jobs by 2036

City of Rancho Cordova General Plan, 2016

The General Plan serves as the blueprint for future growth and development. The plan contains goals, policies and programs designed to provide decision makers with a solid blueprint for land use and development decision-making. It describes a long-term vision for Rancho Cordova that will guide future development of the City’s physical, social, economic, and environmental character.

Two main elements of the General Plan guide and reflect public transportation planning in the City, including the Circulation Element, and the Land Use Element. These are summarized below.

General Plan Circulation Element

The Circulation Element describes existing and future transportation conditions and systems. The Element establishes goals, policies, and strategies for the roadway network, public transportation, and bicycle and pedestrian facilities. The element is the basis for the development of the City’s transportation network. Transit-related issues addressed include:

- Increasing the number and convenience of transit opportunities within the Planning Areas, by expanding routes, increasing frequency, and reducing safety concerns.
- Enhancing the functionality of light rail as an employee commuter option by providing convenient transit extensions from light rail to job centers.
- Providing better integration or expansion of the existing regional bus transit and light rail system that yields opportunities for increased transit use.

- Improving pedestrian and bicycle connections between light rail stations and local retail uses, especially retail uses along Folsom Boulevard.

The goals and policies in the TMP align with the goals and policies of the Circulation Element. Transit-specific Circulation Element goals and policies include:

Goal C.3: Establish a viable transit system that connects all parts of the City and links with regional destinations.

Policy C.3.1: Advocate and develop transit services which meet the needs of residents and employees in Rancho Cordova.

Policy C.3.2: Maintain and improve access and mobility for seniors, youth, and the disabled with programs that meet their mobility needs.

Policy C.3.3: Promote the integration of transit facilities into new development.

Policy C.3.4: Promote the establishment and use of employee shuttles that help reduce trips on City roads.

General Plan Land Use Element

The Land Use Element is central to the City's General Plan and guides planners, the general public, and decision makers to a vision of future development. The element includes existing and future land use activity that will achieve the City's long-range goals for community character, sustainability, and livability. This element is consistent with, and references, the City's 2006 TMP. Public transportation issues include:

- Establishing more livable and sustainable neighborhoods where residents can walk to commercial services and recreational amenities.
- Promoting accessibility and walkability by integrating uses and expanding transportation options.
- Unifying the community and ensuring mobility between areas separated by U.S. Highway 50 and the Folsom South Canal.
- Extending the benefits of growth to areas of the City developed prior to incorporation in 2003.
- Invest in all areas of the City – financially, socially, and physically.

Transit-specific Land Use Element goals and policies include:

Goal LU.1: Achieve a balanced and integrated land use pattern throughout the community

Policy LU.1.7: Promote higher density and intensity land uses that support transit within one-half mile of major transit stations. Development should be pedestrian- and transit-friendly with direct connections to transit. Large, expansive parking fields that separate the retail from the station are prohibited.

Goal LU.5: Redevelop, regenerate, and raise the value of areas of the City developed prior to incorporation

Policy LU.5.5: Support the assembly of land for new development where the fragmentation of parcels or the limited size of existing parcels acts as a deterrent to new development.

City of Rancho Cordova Transit Master Plan, 2006

The City of Rancho Cordova's Transit Master Plan (TMP) followed the 2006 Rancho Cordova General Plan. The TMP describes new access service to neighborhoods and business centers. The TMP proposed a system of city, neighborhood, and regional transportation services. The routes were centered on the Signature Route, an 18-mile streetcar system.

The vision described public transportation as a powerful investment tool to provide new access and opportunities for infill development. Local service would re-energize and sustain economic momentum in urban districts, re-develop and transition underutilized properties into productive real estate and community assets. The TMP identifies five principles to guide the development of transit service in the city, consistent with the City's General Plan:

- Join existing and future city areas
- Foster north/south and east/west connectivity
- Possible adjustments to current and future routes
- Clarify and identify system to riders
- Make service fun, fast, and frequent

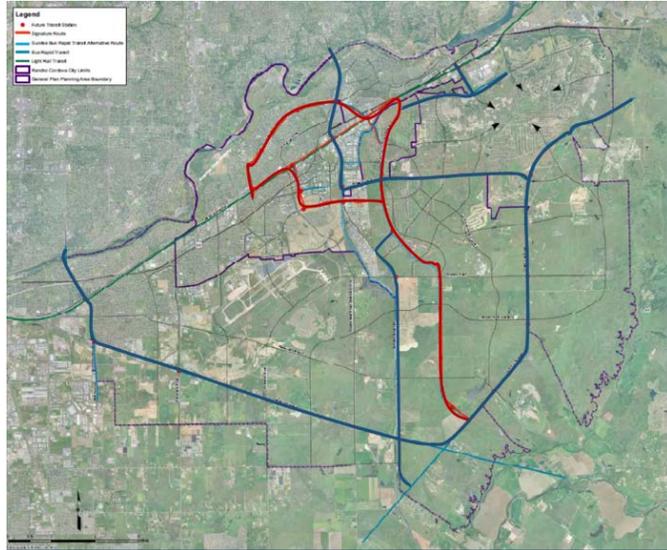
The TMP goal was to establish a high quality transit system that connects all parts of the city, serves neighborhoods, meets the needs of special populations, and links to regional destinations. The Policies guiding the vision included:

- *Policy 1:* Develop a transit system to meet the multiple mobility needs of Rancho Cordova residents.
- *Policy 2:* Promote transit-supportive land use at all scales to increase transit ridership, support economic development, and create livable neighborhoods.
- *Policy 3:* Maintain and improve access and mobility for seniors, youth, the disabled, and the economically disadvantaged.

The TMP proposed strategies for three distinct service types reflecting the different levels of travel demand, service intensity, and vehicle technology:

- *City:* Local service centered on a Signature Route to provide a high-quality (and branded) transit experience, consisting of buses, shuttles, and streetcars.
- *Neighborhood:* Complements city service and will attempt to offer more one-seat rides, consolidate existing services to offer more frequent service, and utilize smaller vehicles within the neighborhood to reach individual riders, as opposed to only buses.
- *Regional:* Will enable fast and frequent limited-stop transit service to destinations outside the city (primarily employment and entertainment destinations). These services will include the existing LRT system and future BRT corridors.

The **Signature (Streetcar) Route** was a centerpiece of the proposed transit system. The Signature Route was recommended to be a streetcar line centered around Zinfandel Drive. The route was 18.5 miles long covering the full length of the City, with 21 proposed stops. Implementation was to occur in stages to accommodate the city's rapidly developing nature, and to mitigate the high capital costs of the proposed vehicle technologies. Capital costs for the proposed seven mile streetcar loop are approximately \$110.9 million, with annual expected operating costs estimated at \$5.25 million. The map shows the public transportation network from the 2006 TMP. The Signature Route is designated by a red line in the center of the city.



Rancho Cordova Transit Master Plan Signature Route and Bus Rapid Transit Network. Source: Rancho Cordova Transit Master Plan, 2006

The TMP also included a significant **Bus Rapid Transit (BRT)** network on major corridors. These routes would provide regional connections to other communities and to Gold Line stations enabling greater regional accessibility and connectivity. Some routes have been considered in Sacramento Regional Transit District planning.

- Grant Line Road from Elk Grove (south to El Dorado County (northeast)
- Sunrise Boulevard between the Gold Line Sunrise station along the old Citrus Road alignment crossing under Highway 50 north to the American River Bridge
- Jackson Highway from Grant Line Road to Watt Avenue
- White Rock Road from Grant Line Road to Rancho Cordova City Hall
- Easton Valley Parkway from Rancho Cordova Parkway east to the City of Folsom

Other service recommendations included:

- New Gold Line Stations at Horn Road and the Mineshaft Area; these stations are still under consideration by RT and Rancho Cordova. Horn Road has environmental clearance from the original Orange Line project, and further documentation is in progress.
- Offer one-seat rides as often as possible.
- Consolidate existing services that will offer more frequent service using fewer vehicles at no increase in level of expenditure.
- Develop neighborhood services that utilize smaller vehicles that can get closer to the individual rider than larger buses.
- Expand demand response service.
- Develop new service delivery approaches.

City of Rancho Cordova Transit Service Plan, 2012

The Rancho Cordova Transit Service Plan was completed in 2012 to evaluate Rancho Cordova's CordoVan and Sacramento Regional Transit routes. Detailed information about these transit services—including history about the development of the CordoVan—is provided in System Overview section of Chapter 4, Service Analysis. The plan provided service concepts for service to Capital Village and the Villages of Zinfandel and for service to Anatolia. Based on public input, including an online survey and a public meeting, two routes were selected as preferred enhancements, including:

- *Modified CordoVan Loop*: Modify Route 177 to operate on Zinfandel Drive instead of Quality Drive from White Rock Road to International Drive, remove the loop between the Cordova Town Center and Zinfandel stations on Folsom Boulevard and Olson Drive to serve only Zinfandel station, and operate service every 15 minutes.
- *Automotive Repair Route*: Operate service from Zinfandel Station to Anatolia using the same route as the Modified CordoVan Loop with an additional loop to service the Bureau of Automotive Repair via Spoto Drive and Mather Drive. Operate service every 45 minutes.

Other service alternatives identified in this plan included:

- *Villages of Zinfandel*: Modified loop plus routing on International Boulevard between Zinfandel Drive and Prospect Park Drive instead of White Rock Road. Service every 15 minutes.
- *Bureau of Automotive Repair B*: This route would maintain the recommended changes plus a large loop via Baroque Drive, Mather Drive, and Bear Hollow Drive. Service every 30 minutes.
- *Capital Village*: This variant of the modified loop adds a second loop around the Villages of Zinfandel via Baroque Drive and Zinfandel Drive and operate on the west side of Capital Village. Service every 30 minutes.
- *Zinfandel Express*: Operate directly from Zinfandel Station to Anatolia via Zinfandel Drive, Douglas Route, Sunrise Boulevard, and Chrysanthy Boulevard to the Anatolia Clubhouse. Service every 45 minutes.

City of Rancho Cordova Rio Del Oro Specific Plan, 2016

The purpose of this Specific Plan is to define a comprehensive land use, policy, and regulatory document to govern all future development in the 3,828 acre Plan Area. The plan establishes a development framework for land use, resource protection, circulation, public utilities and services, implementation, and design.

The specific plan includes nearly 300 acres of land zoned residential at Medium Density (6 to 18 dwelling units per acre) and nearly 100 acres at High Density (18 to 40 dwelling units per acre). There are also 500 acres zoned for commercial land uses. These planned zones are at population density levels generally supportive of fixed-route public transportation service. Other relevant objectives include:

- Facilitate the expansion and use of alternate modes of transportation.

- Develop a regional transit center at the Local Town Center at Rancho Cordova Parkway and International Boulevard; the transit center would provide shelters, travel information, and ticket sales.

City of Rancho Cordova Folsom Boulevard Specific Plan, 2013

The Folsom Boulevard Specific Plan (FBSP) was adopted in 2006 and provided a community vision, goals, and guiding policies for this central corridor. The FBSP covers about four miles along Folsom Boulevard between Bradshaw Road and Sunrise Boulevard. The vision was to repurpose, revitalize, and transform the corridor into a vibrant place focusing on “pulse points” of activity. These points are centered on or near existing and planned future light rail stops. Key goals are to increase pedestrian, bicycle, and transit trips in and through the corridor.

The City updated the plan in 2013 with substantial amendments including:

- Retained 4 of the 5 pulse points and define development priorities for the areas
- Rephrased policies to allow, but not require, residential development
- Retained design standards to ensure high quality development beyond conventional standards
- Goals and policies separated existing and new development approaches and standards.

The plan identifies a series of opportunity sites along the corridor for development.

- The Kassis Opportunity Site is 42 acres, designated as a Residential Mixed Use area, with some potential for commercial uses. It is located near the proposed Horn Road light rail station.
- The Mather Mills Opportunity Site is 12 acres envisioned to support transit-oriented uses, such as a mix of educational, residential, retail, and service activities, both vertically and horizontally. It is located near the existing Mather Field/Mills Station.
- The Olson Island Opportunity Site is a retail commercial center located between the Zinfandel and Cordova Town Center Stations on the Gold Line. The plan outlines increased development density and a comfortable, accessible pedestrian environment.
- The Sunrise Opportunity Site surrounds Folsom Boulevard on the east edge of the City, less than one-half mile west of Sunrise Station on the Gold Line. The area accommodates convention and building showroom facilities.

The plan includes programmatic and physical actions that could potentially impact transit demand, such as:

- Re-tenant vacant buildings and lots for temporary, transitional, or event uses.
- Capture the workforce market through community events and activities.
- Bring diverse housing to Folsom Boulevard.
- Partner with regional agencies on corridor revitalization for improved safety, access, maintenance, joint development projects, funding, and ridership.

SunCreek Specific Plan, 2013

The SunCreek Specific Plan (SCSP) area covers 1,265 acres in the south area of the City of Rancho. The plan aims to create walkable residential villages along with civic and recreation uses

including a community park, schools, and major open space. Signature features include a major open space corridor and a regional town center in the northeast corner of the plan area.

Future growth in this area could impact transit demand. The specific plan area will accommodate 5,104 dwelling units, generate 1,330 jobs, and 13,530 new residents by 2030. Medium and high residential density nodes could also provide higher propensity for non-automobile travel choices.

SunRidge Specific Plan, 2002

The SunRidge Specific Plan was developed to implement the Sunrise Douglas Community Plan and the County General Plan. This plan was adopted prior to 2003—the year Rancho Cordova became an incorporated city—therefore the plan supported the County general plan rather than the City general plan.

The specific plan area encompasses 2,606 acres (about 43% of the Sunrise-Douglas Community Plan area) and proposes 9,886 dwelling units, ranging from low density single family home areas to medium-low density apartment developments.

Sacramento Regional Transit TransitRenewal 2012–2017, 2012

TransitRenewal is a comprehensive operational analysis of the RT bus and light rail system. TransitRenewal examines how and where transit can most effectively be applied, and the funding sources available to finance these services. The report includes a market analysis of the service district, service analysis, plan performance measures, public outreach, and service recommendations.

The market analysis included community profiles, travel patterns analysis, key destinations assessment, and future development locations. Highlights relevant to Rancho Cordova include:

- Largest change in population growth expected to occur near the Folsom Olson Zinfandel (FOZ) area and along Zinfandel Drive.
- Travel demand patterns indicate strongest demand between Rancho Cordova and Gold River by automobile and between Rancho Cordova and Sacramento by public transit. Looking at all trips, there is additional travel demand between Rancho Cordova and Southeastern Sacramento.
- Key destinations in the region include Downtown Sacramento, Cal Expo, CSUS, Sacramento City College, Florin Mall, Cosumnes River College, American River College, and Sunrise Mall.
- Plans for future development in Rancho Cordova include the Folsom Boulevard Specific Plan, Mather/Mills Light Rail Station, Rio Del Oro Specific Plan, Suncreek Specific Plan and Arboretum-Waegell Specific Plan, Sunridge Specific Plan, and Westborough Specific Plan

Specific changes recommended for routes serving Rancho Cordova included:

- **Route 21:** Increase Saturday service span to 10:00 p.m. and extend Saturday and Sunday morning trips from Sunrise Mall to the Louis/Orlando Transit Center. These recommendations have not been implemented.
- **Route 28:** Discontinue portion of route on Sunrise Boulevard (north of Zinfandel Drive) and on Fair Oaks Boulevard from Winding Way to Sunrise Mall. Peak frequency was also

- recommended for reduction from 30 minutes to 60 minutes and service span reduced. Portions of the route were not discontinued but peak frequency is now every 60 minutes.
- **Routes 72 & 74:** No changes were recommended.
 - **Route 75:** Discontinue service on Old Placerville Road and restructure the route so that it operates as a one-way loop from Mather Field Road to Femoyer Street, International Drive, Data Drive, and Reserve Drive to provide a faster connection to light rail and Kaiser Hospital. Extend the route the following year from Mather Field/Mills Station southwest along Folsom Boulevard to Butterfield Station. These recommendations have not been implemented.
 - **Route 177:** No changes recommended.

Sacramento Regional Transit TransitAction Plan, 2009

The TransitAction Plan—RT's Regional Transit Master Plan—describes the long-term plan for the future of transit in the Sacramento metro region. Objectives of this plan include:

- Provide a safe and secure transit system
- Provide an efficient, cost-effective transit system
- Provide an integrated transit system that is linked to transit oriented, land use policies
- Provide a fully accessible transit system that maximizes passenger convenience
- Reduce the impact on the environment
- Support the economy by improving access to opportunity areas by transit

The Rancho Cordova proposed streetcar network described in the 2006 TMP is listed a supported project in TransitAction. The plan ranks proposed rail projects throughout the region. Phases one through three of the Rancho Cordova Streetcar project are ranked number seven out of 11 projects.

The plan also proposes a 'Hi-Bus' network, a network of high frequency, high capacity, high speed bus routes to complete the regional high capacity transit system. Hi bus investments in Rancho Cordova include:

- **Bradshaw route:** Major destinations include Zinfandel LRT, Rancho Cordova Streetcar, Rancho Cordova Town Center, Vision Service Plan/Capital Village Town Center, Mather Sports Center, Sac County Water Quality Board, County Branch Center, Laguna Cross Roads Center, 3 High/Middle Schools, Cosumnes River College
- **Sunrise route:** Major destinations include Cordova Town Center LRT, Rancho Cordova Town Center, Rancho Cordova Streetcar, Rancho Cordova Convention Area, Sunrise Blvd Industrial Area, Mather Regional Park
- **Jackson Highway route:** Mather Regional Park, Downtown Plaza, Convention Center, Cal State U Sacramento, Sutter General Hospital

Sacramento Regional Transit Strategic Plan 2015-2020, 2015

The 2015 Strategic Plan provides an evaluation framework for tracking current system performance and a review of identified challenges from the previous strategic plan (2004). Fundamental challenges identified in the 2004 plan include:

- Rapid Regional Growth impacts traffic congestion and air quality levels.

- Societal Changes, such as an aging population, may impact mode share.
- Funding for transit—local, state and federal—has been reduced.
- System Expansion is difficult with lower than predicted funding levels.
- Local Control of transit services is a desire of RT's Board of Directors.
- System Preservation is an ongoing challenge for RT due to issues with aging infrastructure, securing funding sources, and losing highly skilled workers to retirement.

External and internal factors (e.g., rules, regulations, current and currently predicted economic and political conditions) and input received from community stakeholders were used to create the 2015 Strategic Plan. Challenges identified in the 2015 plan include:

- **Quality Service Demand:** Meeting the demand for cost-effective transit services that support livable communities and accommodate varying travel needs between and within communities.
- **Safety & Security:** Implementing measures to prevent and quickly respond to criminal activity.
- **System Preservation:** Maintaining, replacing and improving existing infrastructure, vehicles and equipment.
- **Funding:** Addressing the need for additional funding to provide quality services which meet community expectations.
- **Quality Workforce:** Maintain staff and expertise levels to ensure delivery of service.
- **Legislative and Regulatory Changes:** Developing strategies to address legislative changes.

To address these challenges, RT identified fundamental goals and growth goals. Fundamental goals help RT fulfill its overall mission while growth goals measure progress towards the overall vision. The mission statement, vision statement, and goals are listed below.

- **Mission Statement:** The purpose of the Sacramento Regional Transit District is to promote and improve access in the Sacramento region by providing safe, reliable, and fiscally responsible transit service that links people to resources and opportunities.
- **Vision Statement:** The Sacramento Regional Transit District strives to connect people to resources and opportunities while stimulating livable communities and supporting economic development by providing an efficient and fiscally sustainable transit system that attracts and serves riders by offering an appealing transportation choice.
- **Fundamental Goals**
 - Ensure Financial Stability
 - Meet or Exceed Expectations for Safe & Quality Service in a Cost-Effective Manner
 - Operate in an Ethical Manner
 - Invest in the Attraction, Development & Retention of a Quality Workforce
- **Growth Goals**
 - Improve Access Within and Between Communities (in the Sacramento Region) in a Cost-Effective Manner
 - Increase Transit Market Share (in the Sacramento Region)
 - Adjust to Legislative & Regulatory Changes and Stakeholder & Community Initiatives and Support Complementary Efforts

A set of 44 key performance indicators (KPI) were identified to measure progress towards achieving the goals. KPI are collected on a monthly (10 KPIs), quarterly (eight KPIs), or annual basis (26 KPIs).

Metropolitan Transportation Plan/ Sustainable Communities Strategy, 2016

The Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) 2036 is the long-range transportation plan for the Sacramento metropolitan area. It is an implementation-focused plan that aims to build on the policy commitments of the 2012 plan and accelerates the region's progress toward achieving its transportation, air quality, and quality of life goals.

The plan includes regional growth projections and land use plan to accommodate the estimated increases in population, employment, and housing.

Projections included in the plan estimate that the Sacramento metropolitan area will need to accommodate approximately 811,000 people, 285,000 new homes, and 439,000 new employees between 2012 and 2036. Rancho Cordova is identified as a major employment center and is expected to have an increase in the number of jobs and housing units by 2036 (Figure 2). Rancho Cordova had a jobs-housing balance of 1.41 in 2008; the balance is expected to be 1.22 in 2036 (within a four mile radius).

Figure 2 Jobs and Households in Rancho Cordova

	2008	2036	% Change (2008-2036)
Housing Units	47,310	75,308	59%
Jobs	66,532	91,866	38%
Jobs/Housing Balance	1.41	1.22	---

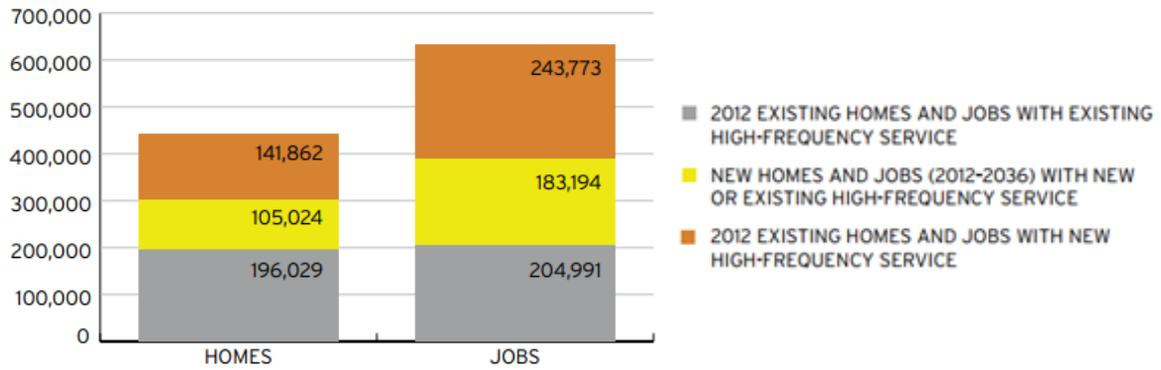
Source: Metropolitan Transportation Plan/ Sustainable Communities Strategy, 2016

Weekday VMT on roadways in the region is also expected to increase from 57 million in 2012 to 63 million by 2036. In 2036, approximately 39% of VMT will result from household-generated commute trips, 31% from household-generated other trips, 18% will be from commercial vehicles, and about 12% will result from externally generated trips.

With the increasing population and employment will require additional transit service. Total fixed-route transit service is expected to more-than-double during the plan's lifetime, from 3,782 hours per day in 2008 to 8,399 hours per day in 2036. New transit service will increase the number of homes near high frequency transit service. By 2036, one-third of homes and over half of all jobs will be located within a 1/2-mile of high quality transit service (transit service with frequency of 15 minutes or better), increasing the potential number and desirability of daily trips made by transit.

Transit Master Plan | Existing Conditions
City of Rancho Cordova

Figure 3 Regional Housing and Employment within Transit Priority Areas, 2012 – 2036



Source: Metropolitan Transportation Plan/ Sustainable Communities Strategy, 2016

3 MARKET ANALYSIS

The purpose of this section is to create a better understanding of the where people are traveling to and from in Rancho Cordova, or the ridership markets. The analysis indicates geographic distribution of population and employment, and historical trend analysis about how those markets have changed since the TMP was adopted in 2006. The maps used in this section illustrate data from the 2010 U.S. Census, which provides the greatest geographic detail available (at the block and block group levels).

POPULATION

Population growth rates and population density are important indicators for developing public transportation services. Growth rates help communities identify likely trends in transportation demand. Population density can suggest which neighborhoods or destinations are important to serve and where public transportation may provide efficient and effective mobility strategy. As shown in Figure 4, population in Rancho Cordova increased at a higher rate than both the county and state, with an 18% increase between 2000 and 2010, and a 7% increase from 2010 to 2016.

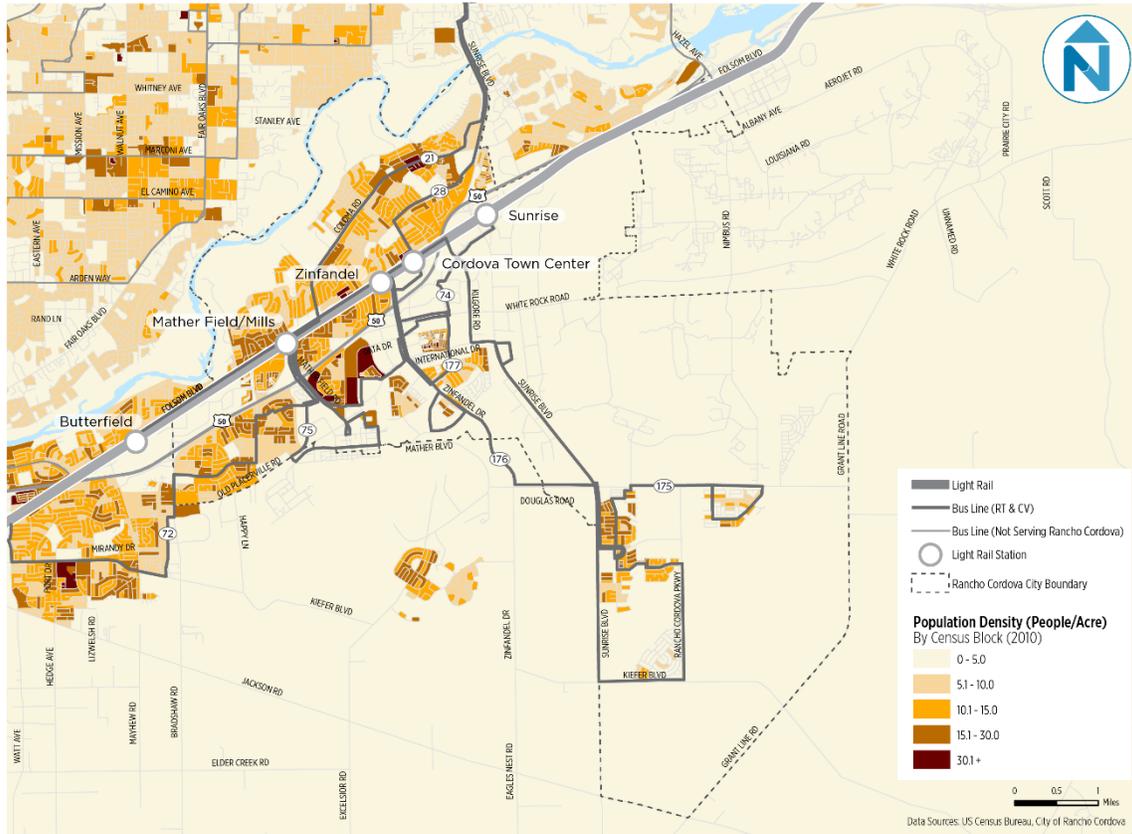
Figure 4 Population Trends, 2000 – 2016

Geography	Population (2000)	Population (2010)	% Change (2000-2010)	Population (2016)	% Change (2010-2016)
Rancho Cordova	55,060	64,776	18%	69,482	7%
Sacramento County	1,223,499	1,418,788	16%	1,479,300	4%
California	33,871,648	37,253,956	10%	38,654,206	4%

Source: U.S. Census 2000 and 2010; American Community Survey 5-year Estimates 2016

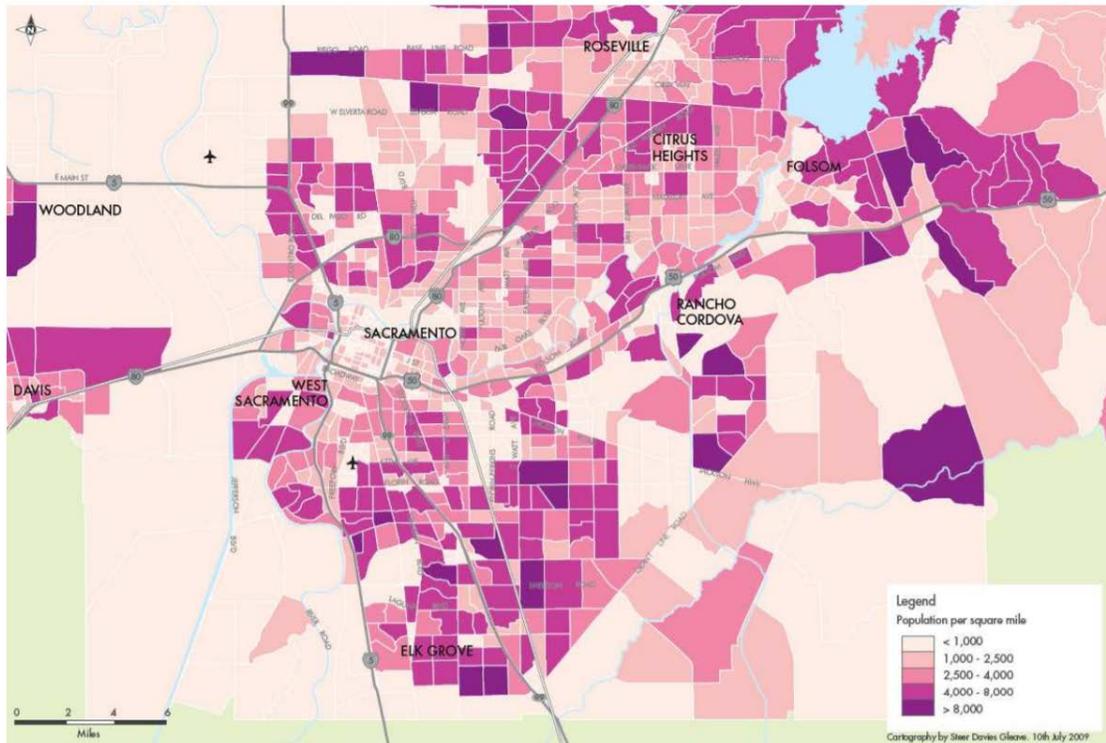
Figure 5 shows total population density. Data from 2010 was used to create the maps in Chapter 3 since this data was more refined than 2016 data. The densest areas are southeast of Highway 50 near the Ashgrove Place Apartments and surrounding Kaiser Permanente, just north of the Sacramento VA. There is moderate density along Coloma Road near the Sunrise Meadows Apartments, Mobile Country Club, and other housing, as well as surrounding the Mather Field/Mills Light Rail station.

Figure 5 Population Density, 2010



According to the SACOG MTP/SCS, Rancho Cordova is expected to be home to over 160,000 people by 2035. Regional projections for the Sacramento metropolitan area estimate a need to accommodate approximately 361,000 new employees and 303,000 new housing units between 2008 and 2035. These projections indicated that the majority of population and employment growth is projected to occur within suburban areas outside of downtown Sacramento, which will likely increase the number of people traveling between suburban areas and downtown Sacramento. Figure 6 shows the forecasted regional distribution of population in the year 2035.

Figure 6 2035 Population Density Forecast



Source: Sacramento Area Council of Governments Sustainable Communities Strategy, 2009.

Transit Supportive Demographic Groups

In addition to population and employment densities, other demographic groups are more likely to use public transportation, including people who have low incomes, live below poverty level, don't have a vehicle, are over 65 years old, or are under 24 years old. Public transportation can be a critical resource for people with limited mobility to maintain independence by getting them where they need to go affordably, efficiently, and safely.

Low Income

In general, household incomes have been increasing in Rancho Cordova, although a significant number of people live in households below the median household income and may have limited mobility choices. Figure 7 and

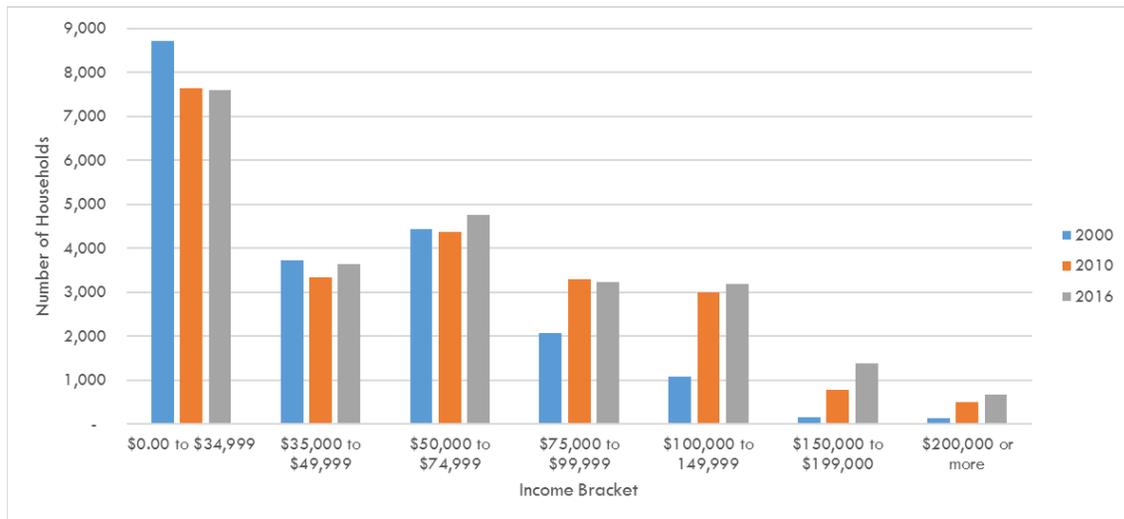
Figure 8 show household income trends for Rancho Cordova, Sacramento County, and California between 2000 and 2016. Since 2000, most households in Rancho Cordova reported incomes below \$35,000. Rancho Cordova had a household median income of \$40,100 in 2010 and \$53,300 in 2016—a 33% increase in the household income. Approximately 46% of Rancho Cordova households were earning less than the median income in 2016. Between 2010 and 2016, Rancho Cordova has the largest increase in the number of households with an income between \$150,000 and \$199,000.

Figure 7 Rancho Cordova Households by Median Household Income, 2000 – 2016

Income	Number of Households (2000) ¹	Number of Households (2010)	Number of Households (2016)
\$0.00 to \$34,999	8,721	7,648	7,589
\$35,000 to \$49,999	3,738	3,331	3,633
\$50,000 to \$74,999	4,442	4,378	4,751
\$75,000 to \$99,999	2,075	3,296	3,233
\$100,000 to 149,999	1,083	3,000	3,189
\$150,000 to \$199,000	161	781	1,374
\$200,000 or more	129	495	678
Total	20,349	22,929	24,447

Source: U.S. Census 2000; American Community Survey 5-year Estimates 2010 and 2016

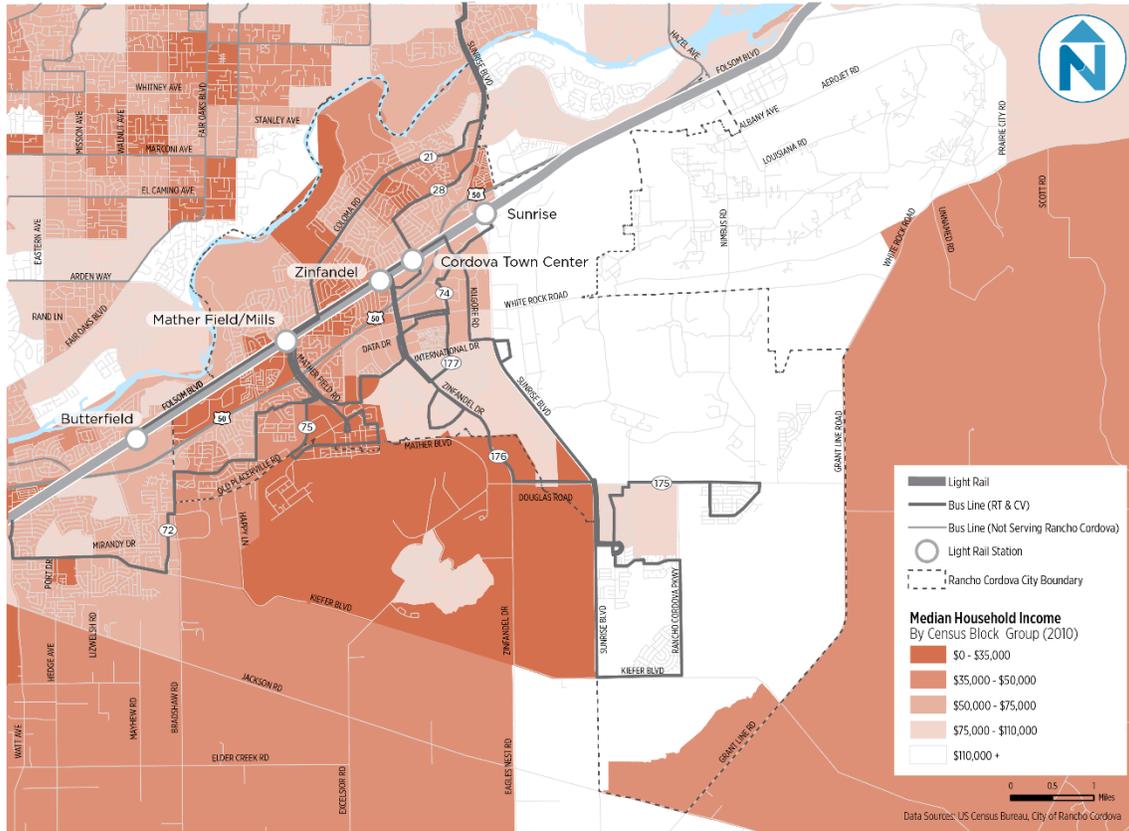
Figure 8 Rancho Cordova Households by Median Household Income, 2000 – 2016



Source: U.S. Census 2000; American Community Survey 5-year Estimates 2010 and 2016

As shown in Figure 9, high income households are relatively densely located near Cordova Town Center. Households with lower incomes are primarily located in the southwest portion of the city.

Figure 9 Median Household Income, 2010



Poverty Level

Figure 10 shows the number of households with an income below the poverty level between 2000 and 2016. Households below the poverty rate have increased since 2000. This is in part due to a large increase in the number of households within Rancho Cordova. In 2000, Rancho Cordova was unincorporated and had approximately 20,350 households. Rancho Cordova became an incorporated city in 2003 and by 2010 had more than 22,900 households. The number of households in Rancho Cordova with an income below the poverty level increased 6% between 2010 and 2016—a much slower rate than the county and the state. As of 2016, the poverty threshold for a family of four was an annual household income \$24,300.

Transit Master Plan | Existing Conditions
City of Rancho Cordova

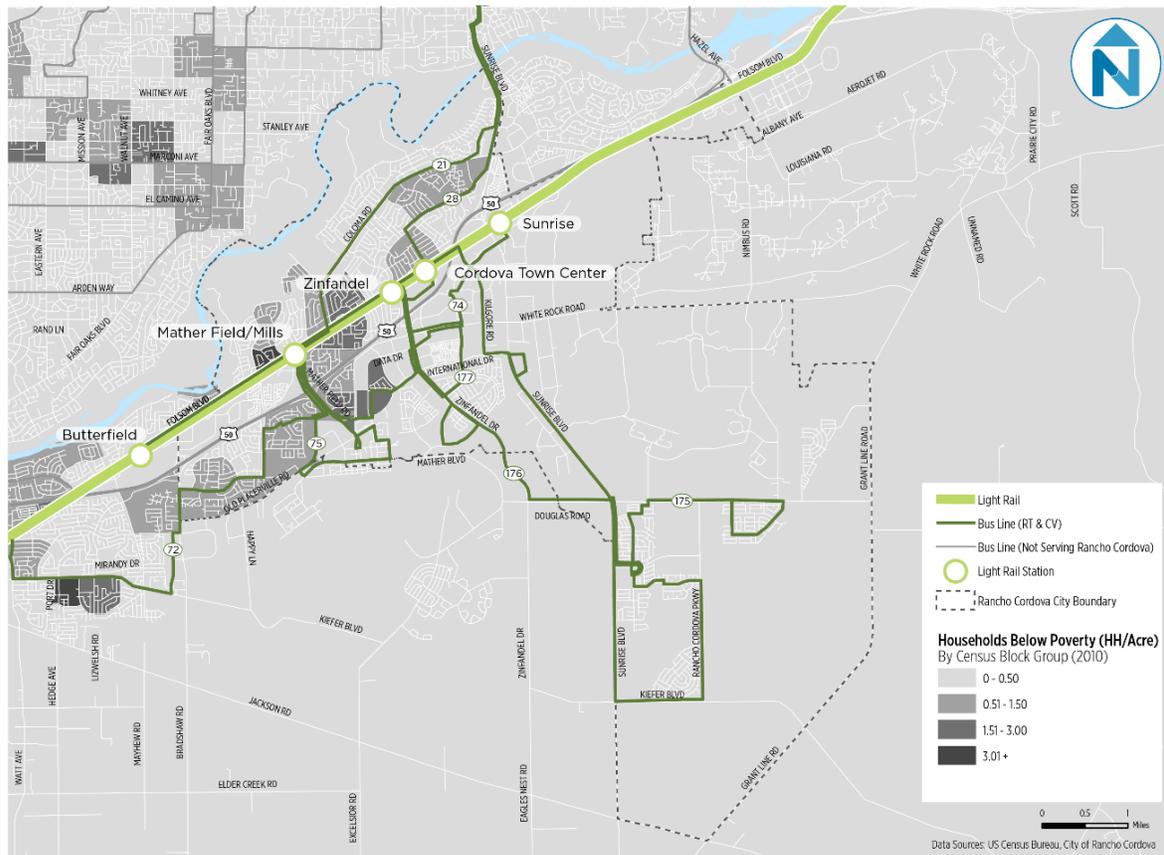
Figure 10 Poverty in Rancho Cordova , 2000 – 2016

Geography	Households with Income below the poverty level (2000) ¹	Households with Income below the poverty level (2010)	% Change (2000-2010)	Households with Income below the poverty level (2016)	% Change (2010-2016)
Rancho Cordova	2,641	3,297	24%	3,481	6%
Sacramento County	52,047	60,532	16%	83,402	38%
California	1,360,284	1,493,426	10%	1,826,304	22%

Source: U.S. Census 2000 and American Community Survey 5-year estimates 2010 and 2016

Figure 11 shows the geographic distribution of households in Rancho Cordova that are below the poverty level. Most of the areas with higher concentrations of households below the poverty level are located south of Highway 50 and west of Zinfandel Drive. Transit service in the area includes Route 74, which operates at 60 minute headways Monday through Friday only, and Route 75, which provides all-week service on Mather Field Road at 60 minute headways. The greatest density of households below the poverty level is located near the western part of the city, near Mather Field/Mills Gold Line Station.

Figure 11 Households Below Poverty Level, 2010



Vehicle Ownership

People with limited number of vehicles at home have greater mobility restrictions than if a vehicle is always available. Figure 12 shows the number of households with zero vehicles between 2000 and 2016. Between 2000 and 2010, Rancho Cordova had a major decrease in the number of zero vehicle households, indicating a rise in vehicle ownership. Zero-vehicle households in Rancho Cordova increased faster than the county and the state from 2010 to 2016.

Figure 12 Households with Zero Vehicles, 2000 – 2016

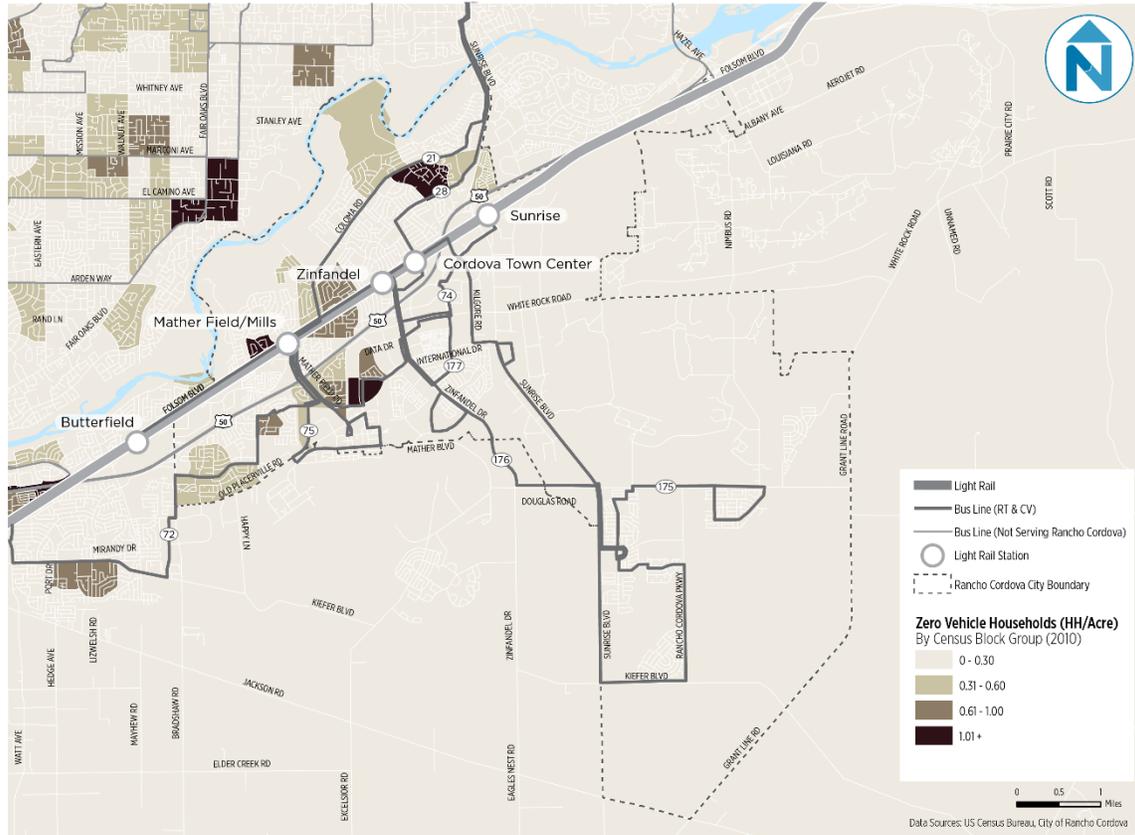
Geography	Number of zero vehicle households (2000) ¹	Number of zero vehicle households (2010)	% Change (2000-2010)	Number of zero vehicle households (2016)	% Change (2010-2016)
Rancho Cordova	1,711	778	-55%	1,008	30%
Sacramento County	39,405	16,092	-59%	16,680	4%
California	1,091,214	567,358	-48%	578,171	2%

¹ The data for 2000 was collected through U.S. Census Summary File 3 (SF3). There may have been a change in data definitions or sampling methods between the 2000 and 2010 Census.

Source: U.S. Census 2000, American Community Survey 5-year estimates 2010 and 2016

Figure 13 shows that the largest concentrations of zero-vehicle households are directly adjacent to regional transit service, including the Gold Line, Route 21, Route 28, and Route 74. The Cordovan routes today do not serve areas where residents are transit dependent based on the number of vehicles they have. This is consistent with the geographic distribution of income and households below the poverty level, as higher incomes are correlated with higher levels of vehicle ownership.

Figure 13 Households with Zero Vehicles, 2010



Older Adults

Older adults may be less likely to drive because of physical restrictions, limited incomes, or other reasons. For the purpose of this analysis, the older adult population is defined as people age 65 and older. As shown in Figure 14, the older adult population has been increasing from 2000 to 2016. The rate of growth in Rancho Cordova has been slightly higher than the county and the state.

Figure 14 Older Adult Population, 2000 – 2016

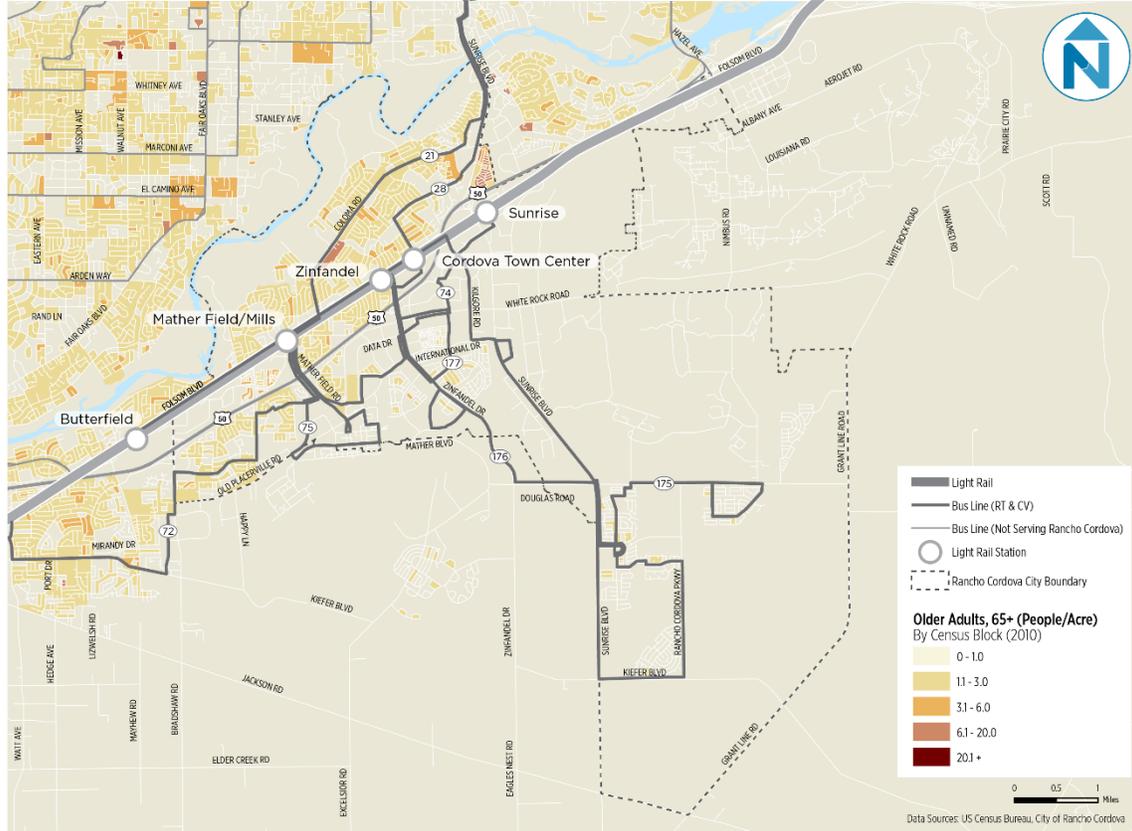
Geography	Population 65 or older (2000)	Population 65 or older (2010)	% Change (2000-2010)	Population 65 or older (2016)	% Change (2010-2016)
Rancho Cordova	5,568	6,634	19%	8,054	21%
Sacramento County	135,875	158,551	17%	189,264	19%
California	3,595,658	4,246,514	18%	4,976,982	17%

Source: U.S. Census 2000 and 2010, American Community Survey 5-year estimates 2016

Figure 15 shows that the older adult population is primarily concentrated in the northern part of the city. This area is served by regional Route 21 (seven days per week) and Route 28 (weekdays only). This is not to say older adults do not live in other parts of town; the share of older adults

to younger residents will likely increase as residents in relatively new developments age in place, and as the population grows in general.

Figure 15 Population Age 65 and Older, 2010



Youth

For the purpose of this analysis, the youth population is defined as people ages 15 to 24. Figure 16 shows youth population trends in Rancho Cordova, Sacramento County, and the State of California. The population of youth in Rancho Cordova was on the rise between 2000 and 2010, increasing at a similar rate to that of the state. Between 2010 and 2016, Rancho Cordova saw a decline in the youth population. This rate of decline has been faster than both the county and the state.

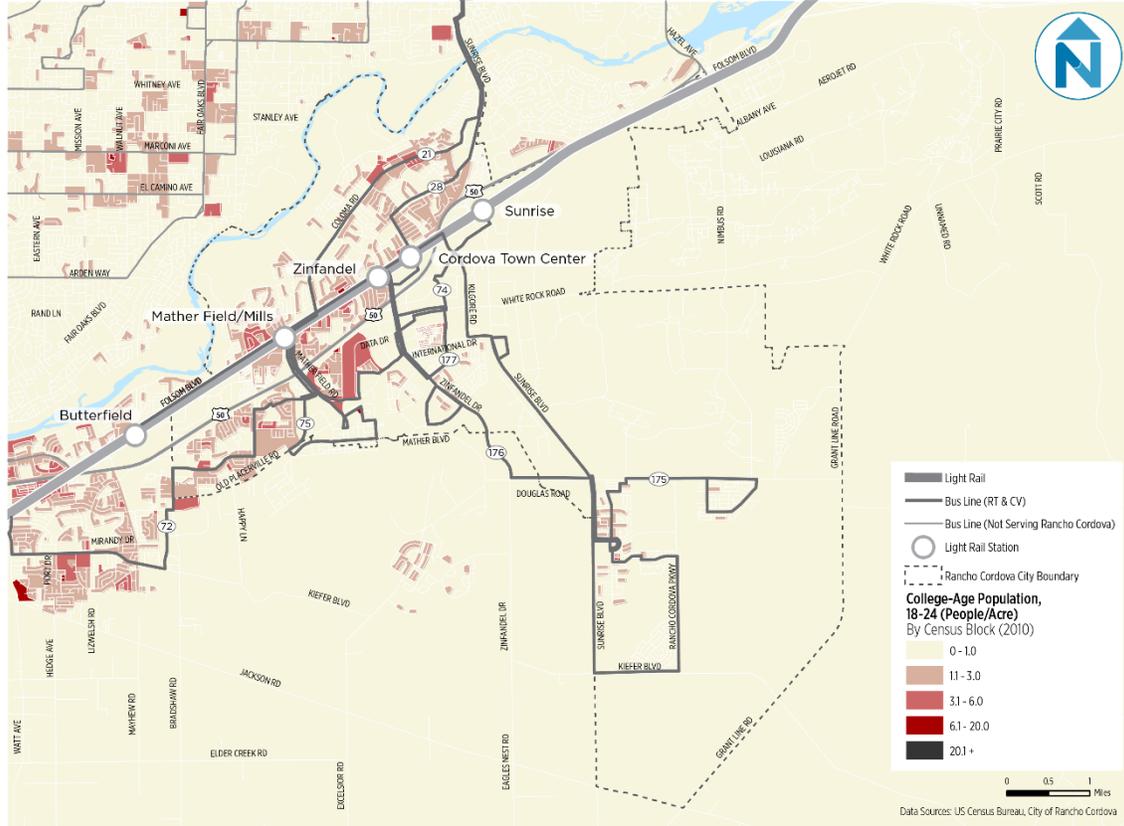
Figure 16 Youth Population, 2000 – 2016

Geography	Population 15 to 24 (2000)	Population 15 to 24 (2010)	% Change (2000-2010)	Population 15 to 24 (2016)	% Change (2010-2016)
Rancho Cordova	7,967	9,134	15%	8,574	-6%
Sacramento County	170,113	207,588	22%	200,240	-4%
California	4,832,176	5,589,889	16%	5,524,466	-1%

Source: U.S. Census 2000 and 2010, American Community Survey 5-year estimates 2016

As shown in Figure 17, most of the youth population resides in the northwest part of the city near regional transit service. There are also small pockets of youth living along the CordoVan Shuttle route.

Figure 17 Population Age 15 to 24, 2010



EMPLOYMENT

Rancho Cordova is one of the Sacramento Region’s largest employment centers, with facilities for corporate campuses, office parks, and light industrial areas providing for professional services and medical sector jobs. As shown in Figure 18, the number of employed Rancho Cordova residents has increased from 2000 to 2016. Between 2010 and 2016, Rancho Cordova employment increased almost three times faster than the County, and nearly twice as fast as the State.

Figure 18 Employment Trends, 2010 – 2016

Geography	Employment (2000)	Employment (2010)	% Change (2000-2010)	Employment (2016)	% Change (2010-2016)
Rancho Cordova	24,319	28,733	18%	31,918	11%
Sacramento County	545,925	625,894	15%	648,876	4%
California	14,718,928	16,632,466	13%	17,577,142	6%

Source: U.S. Census 2000; American Community Survey 5-year Estimates 2010 and 2016

As shown in Figure 19, Rancho Cordova has significant employment density compared to the surrounding area. Employment is concentrated between Capital Center Drive and Kilgore Road southeast of Highway 50, with lower densities to the east along Sunrise Boulevard. Around Light Rail station areas, the highest employment densities are around Butterfield Station, Zinfandel Station, and Cordova Town Center Station. There is less employment density surrounding Sunrise Station and very little in the direct proximity of Mather Field Station. In general these employment areas are well-served by some transit service, although not necessarily providing connections between them. There are very few areas of over five employees per acre farther than a quarter-mile from current transit service. There is some employment along Sunrise Boulevard and near Sunrise Station that is outside of a quarter mile of transit.

Figure 19 Employment Density

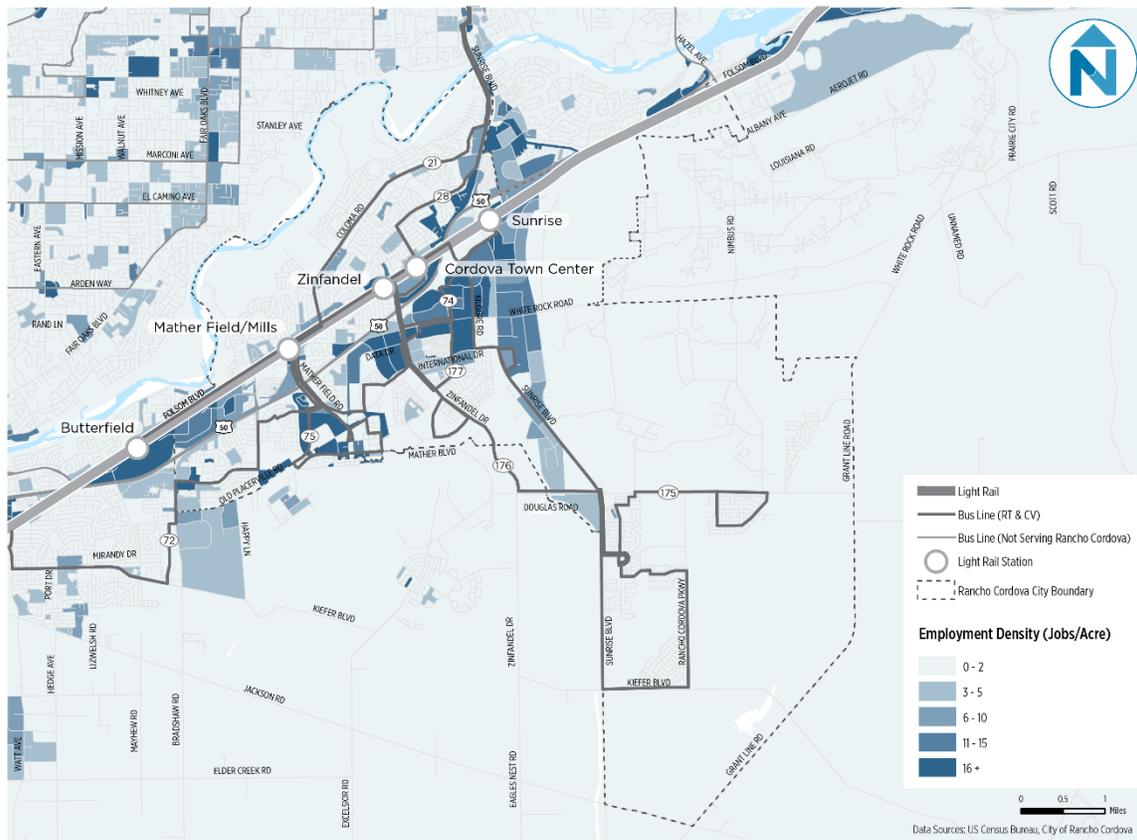
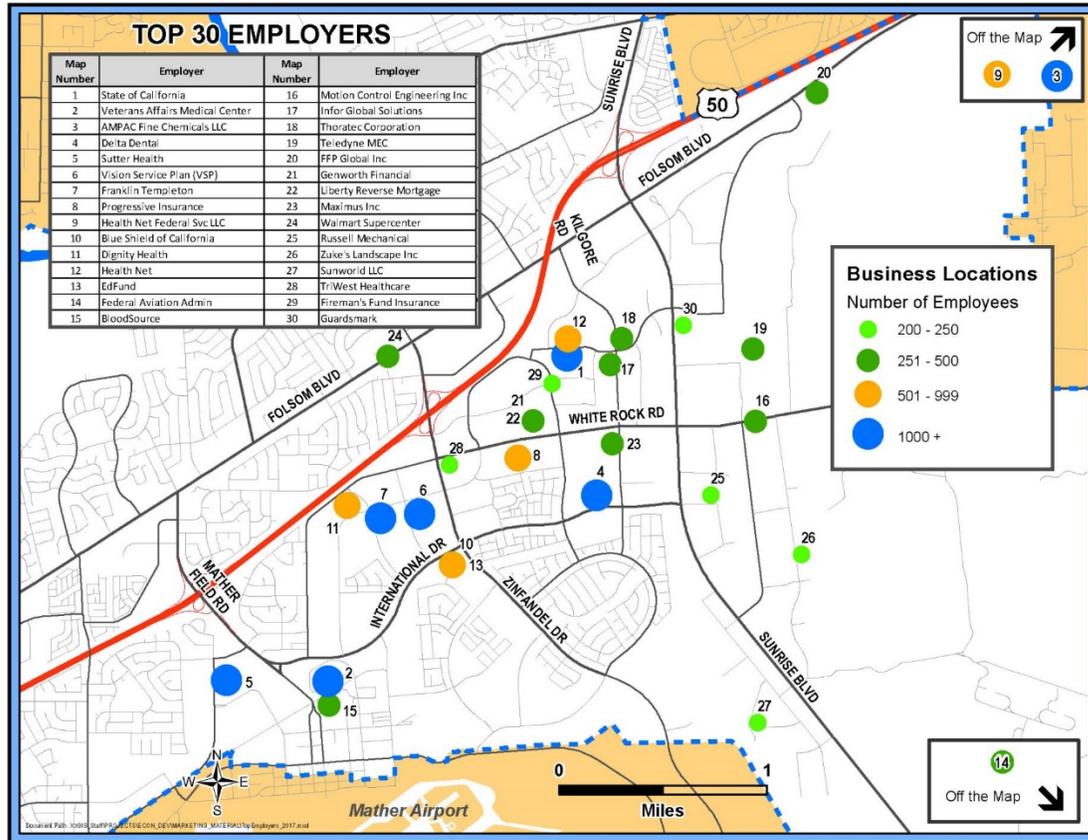


Figure 20 shows the location of major employers in Rancho Cordova. Rancho Cordova is home to six employers with more than 1,000 employees, including the State of California (Water Quality Control Board), Veteran’s Affairs Medical Center, Delta Dental, Sutter Health, Vision Service Plan, and Franklin Templeton. These and other employers are concentrated in three primary commercial “neighborhoods” south of Highway 50:

1. Mather Field Road and International Drive (medical centers)
2. Zinfandel Drive and White Rock Road/Data Drive/International Drive (office)
3. Sun Center Drive and Prospect Park Drive / Kilgore Road

Areas nearest to Folsom Boulevard and light rail stations have much of the retail and services employers, with direct access to major transportation corridors.

Figure 20 Rancho Cordova Top 30 Employers with Most Employees



Source: City of Rancho Cordova Economic Development Department

LAND USE AND DEVELOPMENT

The Rancho Cordova zoning code and map include existing developments and areas identified in specific plans for future development. Figure 21 shows the zoning map for each of the identified codes. Planning areas identified in the General Plan and Specific Plans are reflected in the City's zoning map, including Grant Line North, Suncreek Preserve, and Rio del Oro. Other planning areas (i.e. Jackson, Grant Line South, East, Aerojet, and Mather) have yet to be reflected in the zoning code, but are included in the General Plan.

The zoning map shows areas of consistent zoning types that are notable for possible future public transportation use, including:

- North of Folsom Road and Highway 50 is zoned largely single family residential, with medium density residential zoning locate near Sunrise Boulevard and near the Mather Field light rail station. These areas were developed before Rancho Cordova's incorporation. The zoning types are generally consistent with residential densities illustrated in Figure 5.
- The Office Professional Mixed Use zone is centered around White Rock Road between Mather Field and Sunrise Boulevard. This is consistent with where many of the 30 largest employers are found.

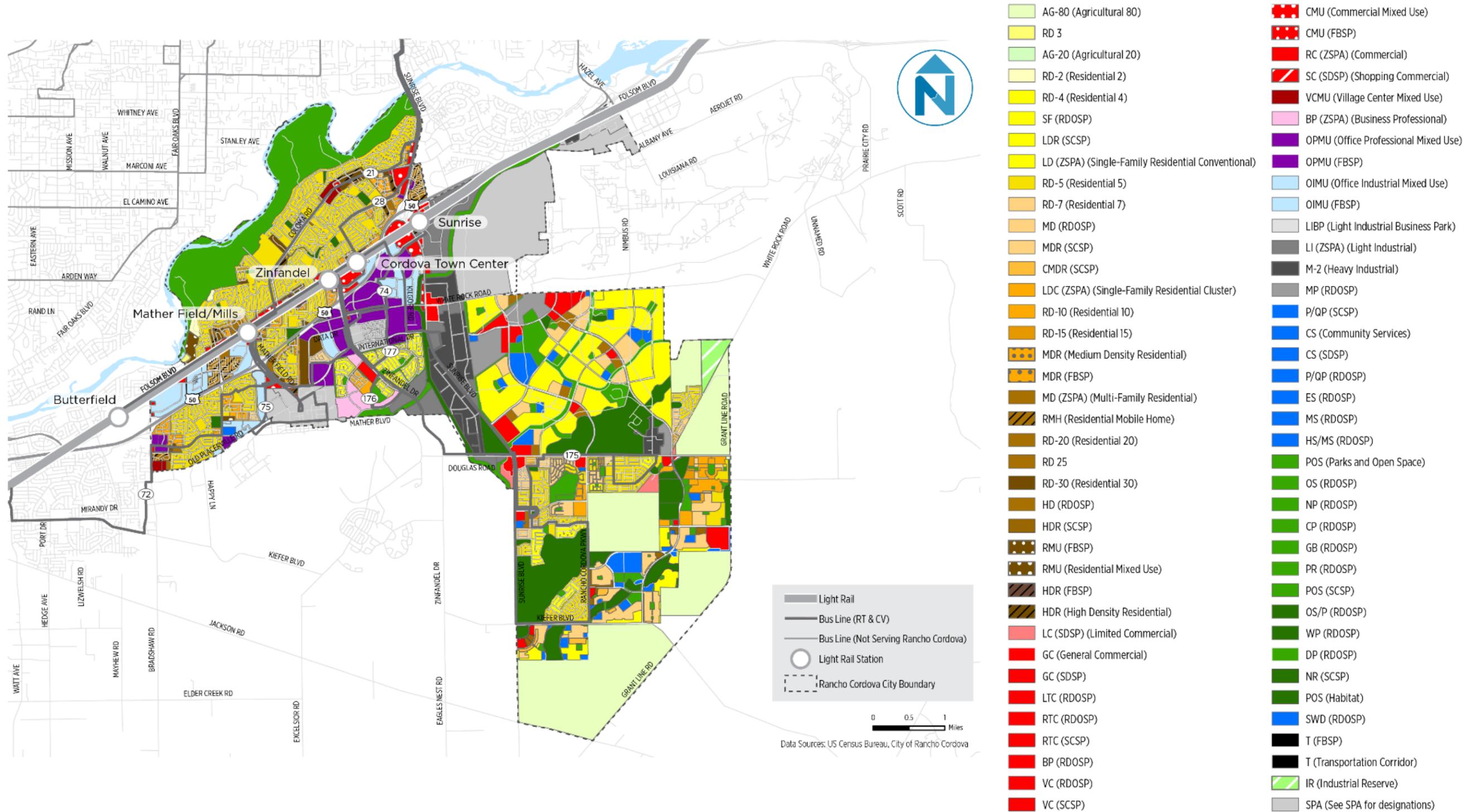
- The Commercial Mixed Use zone is used near light rail stations, including Zinfandel, Cordova Town Center, and Sunrise. These are intended to, in part, offer the greatest flexibility and development densities suitable to leverage the high public transportation accessibility.
- Newer neighborhoods in the Rio Del Oro and Suncreek Preserve Planning Areas include medium- to high-density residential zones. The Specific Plans detail the intent to design neighborhood centers, or nodes of higher density development around neighborhood community centers and shares spaces with good access to public transportation. As envisioned, this allocation of space for public transportation facilities (and right-of-way) can facilitate and expedite public transportation services in these areas of the City.

The City of Rancho Cordova and Sacramento County also expect residential, commercial and industrial development in areas outside of City limits today. Existing planning materials suggest the following considerations for future development.

- Jackson Road / Highway 16 may see increased future development north of and along the right of way. The City is tracking regional plans to improve mobility and provide future development sites. Plans today are low density relative to other planning areas, but worth watching, should future developers bring high density employment, or jobs for people with higher propensity to use public transportation (low income, youth, and older adults).
- The Capital SouthEast Connector has a planned segment on Grant Line Road between Jackson Road/Highway 16 and White Rock Road. Given the express, highway facility model described, this road would not be strong long-term candidate for local public transportation access.

Transit Master Plan | Existing Conditions
City of Rancho Cordova

Figure 21 Rancho Cordova Zoning



TRAVEL PATTERNS

The U.S. Census Bureau’s Longitudinal Employer-Household Dynamics (LEHD) On the Map tool allows users to access employer and household information, such as where workers live and where workers work. Analyzing this data highlights common commute patterns and can help the TMP project team anticipate travel needs to and from Rancho Cordova.

Approximately 52,500 workers were employed within the City of Rancho Cordova in 2015, of which 9% also lived in Rancho Cordova. As shown in Figure 22, 91% of the Rancho Cordova’s workforce travel in from surrounding cities. Fifteen percent of those workers traveling into Rancho Cordova are coming from the City of Sacramento.

Figure 22 **Where Employees in Rancho Cordova Live**

	Number of Employees	Percent of All Employees
Workers that work and live in Rancho Cordova	4,941	9%
Workers that work in Rancho Cordova and live elsewhere	47,630	91%
<i>Sacramento, CA</i>	7,093	15%
<i>Elk Grove city, CA</i>	2,825	6%
<i>Folsom city, CA</i>	2,160	5%
<i>Citrus Heights city, CA</i>	1,942	4%
<i>Roseville city, CA</i>	1,814	4%
<i>Arden-Arcade CDP, CA</i>	1,776	4%
<i>Carmichael CDP, CA</i>	1,480	3%
<i>El Dorado Hills CDP, CA</i>	1,138	2%
<i>Orangevale CDP, CA</i>	1,028	2%
<i>All other locations</i>	21,433	55%
Total Employment	52,571	100%

Source: Longitudinal Employer-Household Dynamics (LEHD), 2015

Approximately 30,800 people living in Rancho Cordova were employed in 2015, of which 16% also worked in Rancho Cordova. As shown in Figure 23, 84% of workers that live Rancho Cordova travel to surrounding cities for work. A large portion of these workers travel to the City of Sacramento for work (27%). Others (2%) travel as far as San Francisco for work.

Transit Master Plan | Existing Conditions
City of Rancho Cordova

Figure 23 Where Employed Residents Work

	Number of Employed Residents	Percent of All Employed Residents
Workers that work and live in Rancho Cordova	4,941	16%
Workers that live in Rancho Cordova and work elsewhere	25,879	84%
<i>Sacramento, CA</i>	7,054	27%
<i>Folsom, CA</i>	1,599	6%
<i>Arden-Arcade, CA</i>	1,285	5%
<i>Roseville, CA</i>	1,201	5%
<i>Carmichael, CA</i>	567	2%
<i>San Francisco, CA</i>	551	2%
<i>La Riviera, CA</i>	536	2%
<i>West Sacramento, CA</i>	532	2%
<i>Citrus Heights, CA</i>	528	2%
<i>All Other Locations</i>	12,026	46%
Total People Employed in Rancho Cordova	30,820	100%

Source: Longitudinal Employer-Household Dynamics (LEHD), 2015

4 SERVICE ANALYSIS

SYSTEM OVERVIEW

Rancho Cordova is served by nine public transportation routes—one RT light rail route, five RT bus routes, and three CordoVan routes. The area is also served by RT's demand response or services required under the Americans with Disabilities Act of 1990 (ADA paratransit).

RT Services

The RT services include the following routes and ADA paratransit services.

- **Gold Line** connects Historic Folsom Station with Sacramento Valley Station and has four stations in Rancho Cordova, including Mather Field/Mills, Zinfandel, Cordova Town Center, and Sunrise. Service operates every 15 minutes Monday through Friday and every 30 minutes Saturday, Sunday, and Holidays.
- **Route 21** operates between Mather Field/Mills Station and Louis & Orlando/Transit Center, primarily on Coloma Road, Sunrise Boulevard and Twin Oaks Avenue. Service operates Monday through Friday between Sunrise Mall/Transit Center and Mather Field/Mills Station every 30 minutes from 4:40 to 6:40 a.m. and every 30 minutes between Louis & Orlando/Transit Center and Mather Field/Mills Station between 6:30 a.m. and 10:45 p.m. Saturday and Sunday service operates hourly with more limited service to Louis & Orlando/Transit Center.
- **Route 28** connects Butterfield Station, Mather/Mills Station, Zinfandel Station, Cordova Town Center Station, and the Sunrise Mall/Transit Center in Citrus Heights on the north side of Hwy 50. This route operates hourly Monday through Friday from 5 a.m. to 7:45 p.m.
- **Route 72** operates between Mather Field/Mills Station and Watt/Manlove Station. Service operates Monday through Friday between Mather Field/Mills Station and Watt/Manlove Station every 30 minutes from 5:40 a.m. to 10:00 p.m. Two westbound runs in the morning begin at Routier Road & Rockingham Drive rather than Mather Field/Mills Station and two eastbound runs in the afternoon begin at Kiefer Boulevard and Branch Center Road rather than Watt/Manlove Station Road. Service on weekends operates hourly between Mather Field/Mills Station and Watt/Manlove Station from 8 a.m. to 7:30 p.m. on Saturdays and 8:30 a.m. to 7:00 p.m. on Sundays.
- **Route 74** connects Sunrise Station and Mather Field/Mills Station via Mather Field Road on the south side of Hwy 50. Service operates every hour Monday through Friday from 6 a.m. to 8:30 p.m.
- **Route 75** operates south of the Mather Field/Mills Station, circulating in a loop along Mather Field Road, Femoyer Street, Mather Boulevard, and Old Placerville Road. The route makes a small loop around Armstrong Avenue, Von Karman Street, and Whitehead

Street. Service operates every hour from 6:30 a.m. to 7:45 p.m. Monday through Friday and every hour from 7:40 a.m. to 6 p.m. on Saturdays and Sundays.

- **ADA paratransit service** serves origins and destinations within a three-quarter mile radius of RT's bus routes or light rail stations during regular service hours. Service in Elk Grove, Folsom, Galt, Isleton or Roseville is limited since those areas are covered by other paratransit and Dial-A-Ride services. To use the service, customers must register and qualify and make a reservation one to two days prior to their trip during reservations hours, 8 a.m. to 5 p.m. daily.

RT fares are \$2.75 for single rides, and \$7.00 for all day. Seniors (65 years old and above), youth, people with disabilities and people with Medicare cards pay \$1.35 for one trip, and \$3.00 for the day.

Rancho CordoVan

In 2008 Rancho Cordova received a three-year demonstration grant from SACOG to initiate bus service in the city. The service was designed to improve access for Villages of Zinfandel residents and for business park employees south of Highway 50. In 2009, service began a “circulator” shuttle with 15-minute headways that provided access to the Cordova Town Center RT Gold Line Station.

The CMAQ grant ended in 2012. The City recognized the success of the service and chose to continue it with local funds. The City made several service modifications and created two separate routes (Route 177 and Route 176), changed the RT Gold Line connection from Cordova Town Center station to Zinfandel Station, and established peak-hour-only schedules on both routes. The City expanded the service in 2015 with a third vehicle creating a new route (Route 175), and extending Route 176 to serve Kavala Ranch.

Today, Rancho CordoVan routes are operated by RT and provide peak-hour connections between Rancho Cordova housing and employment centers, and the Zinfandel Gold Line Station. The Rancho CordoVan routes are designed to serve the “new” areas in Rancho Cordova. This area includes properties located south of Route 50. The residents and businesses in the new area contribute to a local transportation tax that funds the CordoVan and transportation demand management services available to residents and employees in the City.

- **Rancho CordoVan Route 175** connects Zinfandel Station, the Anatolia Clubhouse, and Sunridge Park. This route operates three runs between 6 and 9 a.m. and four runs between 3 and 7 p.m.
- **Rancho CordoVan Route 176** operates between Zinfandel Station, Anatolia Clubhouse, and Kavala Ranch with three runs in the morning between 6 and 9 a.m. and four runs in the afternoon/evening between 3:30 and 7:30 p.m.
- **Rancho CordoVan Route 177** connects Zinfandel Station and Baroque Drive. This route operates in a loop with 14 runs between 6 and 9:30 a.m. and 15 runs between 3:30 to 7 p.m.

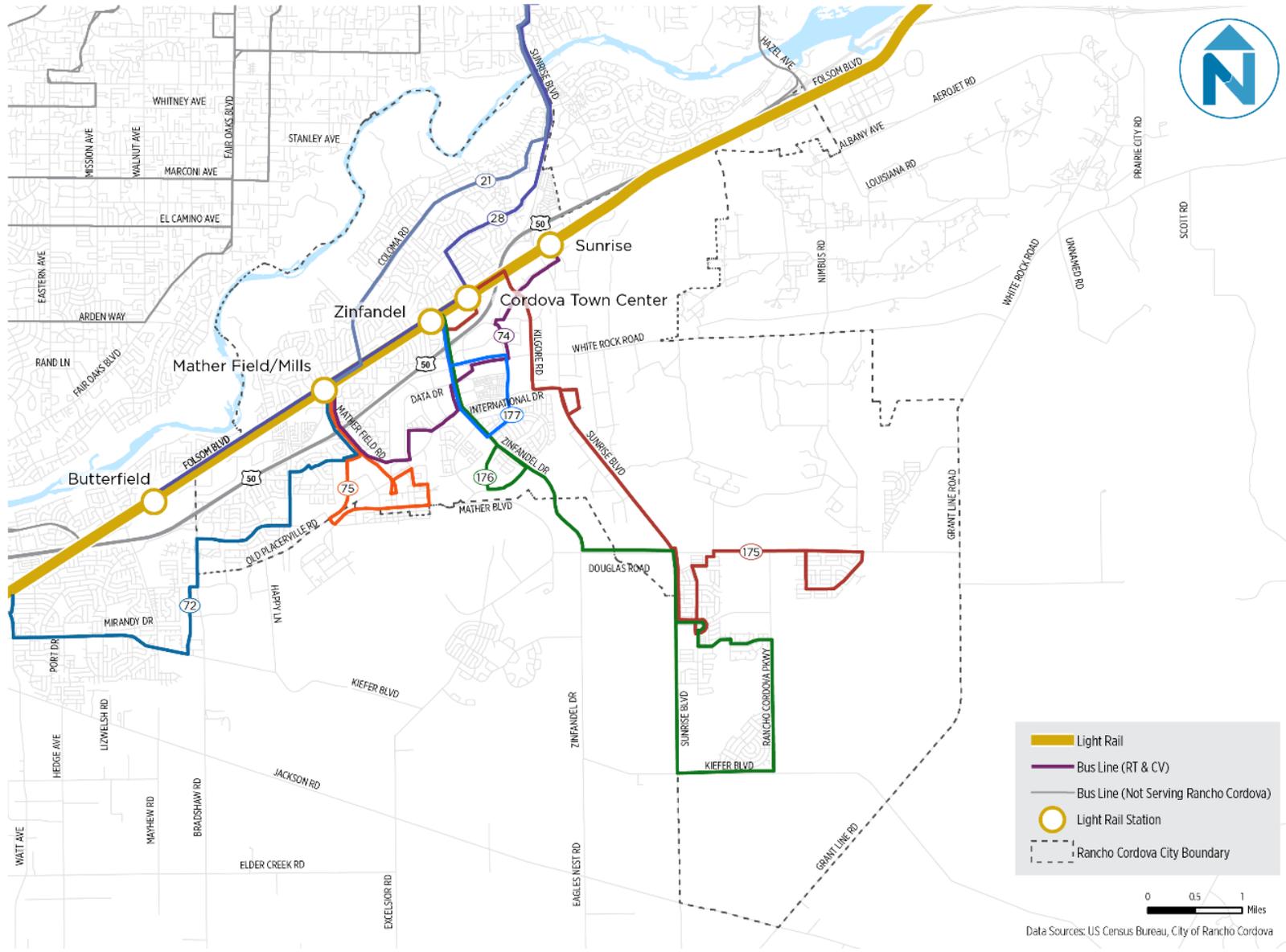
Fares on the Rancho CordoVan are \$0.50 one way, or \$0.25 for discount-eligible riders (see RT fare policy for seniors, youth, people with disabilities and people with Medicare cards). RT fare products are also applicable to CordoVan trips. SACOG and partners recently implemented the Connect Card, an electronic fare payment system for nine regional public transportation agencies. The card provides convenience, service efficiencies and fare policy options that should have strong benefits in for RT and Rancho Cordova.

Bus stops in Rancho Corodova are generally denoted by a sign on a metal post indicating the route number and service area. There is a passenger shelter at the Zinfandel Station stop, located on the mall parking lot property beyond the Gold Line right-of-way fencing. RT bus stops in Rancho Cordova are equipped with a range of amenities depending on the location, including signs, shelters, benches, route information, and garbage can. Light rail station are equipped with a full set of high-capacity transit route amenities, including all those for bus stops plus real-time route schedule information, awnings and direct access to adjoining RT regional bus stops.

Figure 24 provides a local public transportation system map illustrating the routes described above.

Transit Master Plan | Existing Conditions
City of Rancho Cordova

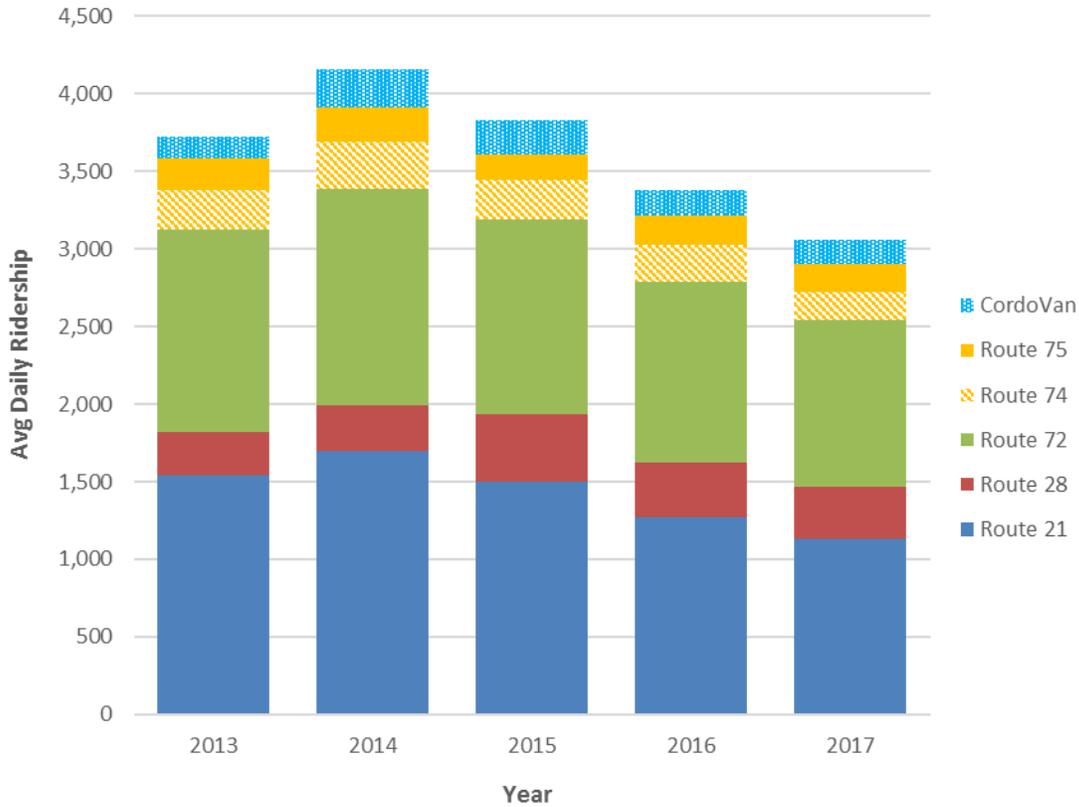
Figure 24 Rancho Cordova Public Transportation System Map



RIDERSHIP TRENDS

Historical ridership data can provide critical information for short- and long-range planning, to ensure resources are allocated efficiently and effectively to meet public transportation demand. Figure 25 shows average weekday ridership by year and by route in Rancho Cordova. The CordoVan Routes 175, 176, and 177 are grouped to provide an order-of-magnitude comparison with the other RT routes serving the City. The trend shows a steady decline in ridership each year since 2014. Ridership declined 18% between 2013 and 2017, decreasing 8% to 12% each year since 2014. This is consistent with systemwide ridership trends on RT; according to the National Transit Database, RT's total bus ridership declined 12% between 2014 and 2016, with light rail ridership remaining unchanged after a 5% decline from 2014 to 2015. RT's September 2017 Key Performance Report noted systemwide ridership for the month of September decreased by 9.5% compared to the same period last year, with rail ridership decreased 11.7% and combined bus ridership decreased 7.2%.

Figure 25 Average Daily Boardings in Rancho Cordova, 2013-2017



Source: Sacramento Regional Transit District. CordoVan includes Routes 175, 176 and 177, which are grouped for comparison.

RT provides daily and monthly CordoVan reports to Rancho Cordova. The reports summarize each route's ridership, revenue service hours, revenue service miles, farebox revenue, on-time performance, and vehicle performance. Figure 26 illustrates CordoVan total monthly ridership between 2014 and 2017, based on these reports (Routes 175, 176, 177). Overall, CordoVan weekday ridership decreased 26% between 2014 and 2017. This contrasts to ridership up to the

year 2014, which had been steadily increasing; for example Route 177 daily ridership increased 70% between November 2013 and November 2014.

Rancho Cordova added Route 175 to local service in October 2015, as shown in Figure 26. Ridership on the route has grown to about 600 rides per month, similar to Route 176. The route overlaps with Route 176 in Anatolia Village, on Sunrise Boulevard between Douglas Road and Chrysanthy Boulevard, and on Chrysanthy Boulevard to Anatolia Drive.

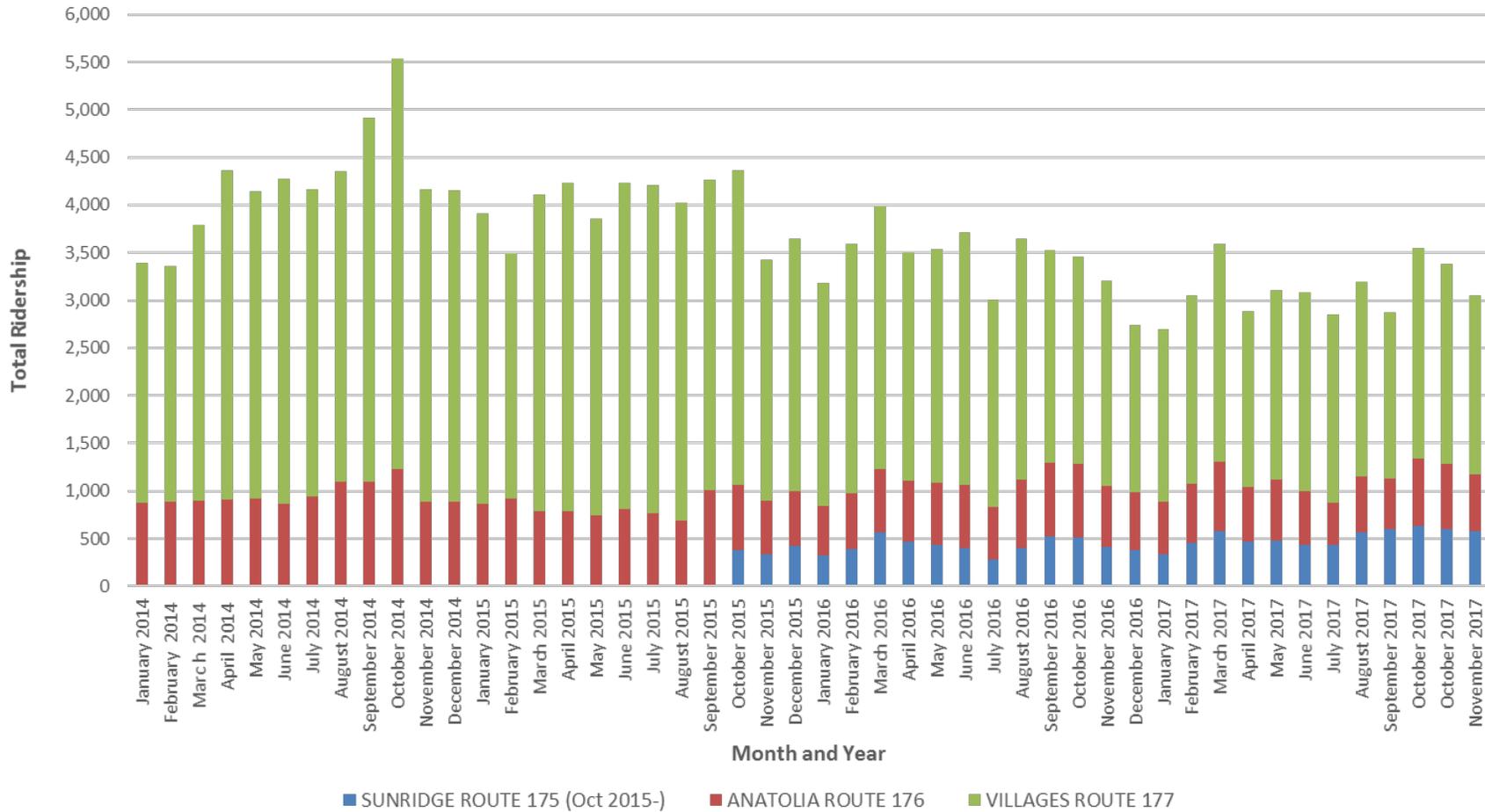
CordoVan ridership records suggest seasonal variation in the customer markets. Ridership is lowest in December and January, likely associated with holidays and other vacations. Ridership tends to be highest in March and October.

Figure 27 shows average weekday bus ridership by bus stop in Rancho Cordova. The ridership symbols are scaled to show the number of riders relative to all other stops in the city – the larger the symbol, the more riders get on an off at the stop on an average day. Average weekday ridership is greatest at stops at or near the light rail stations, with the greatest at the Mather Mills station, where Routes 21, 28, 72, 74, 75 converge. Zinfandel is also high, which is where Route 28 and the CordoVan routes stop. Away from Folsom Boulevard and the Gold Line, some of the highest ridership areas are on Mather Boulevard (Route 75), Colma Road (Route 21), and on along Old Placerville Road and Kiefer Boulevard (Route 72).

Of the CordoVan Routes, the Anatolia Club House station (Routes 176 and 177) has moderate average weekday ridership, especially considering the limited service hours. Other CordoVan bus stops were not available in the mapping resources or had very low average ridership.

Transit Master Plan | Existing Conditions
City of Rancho Cordova

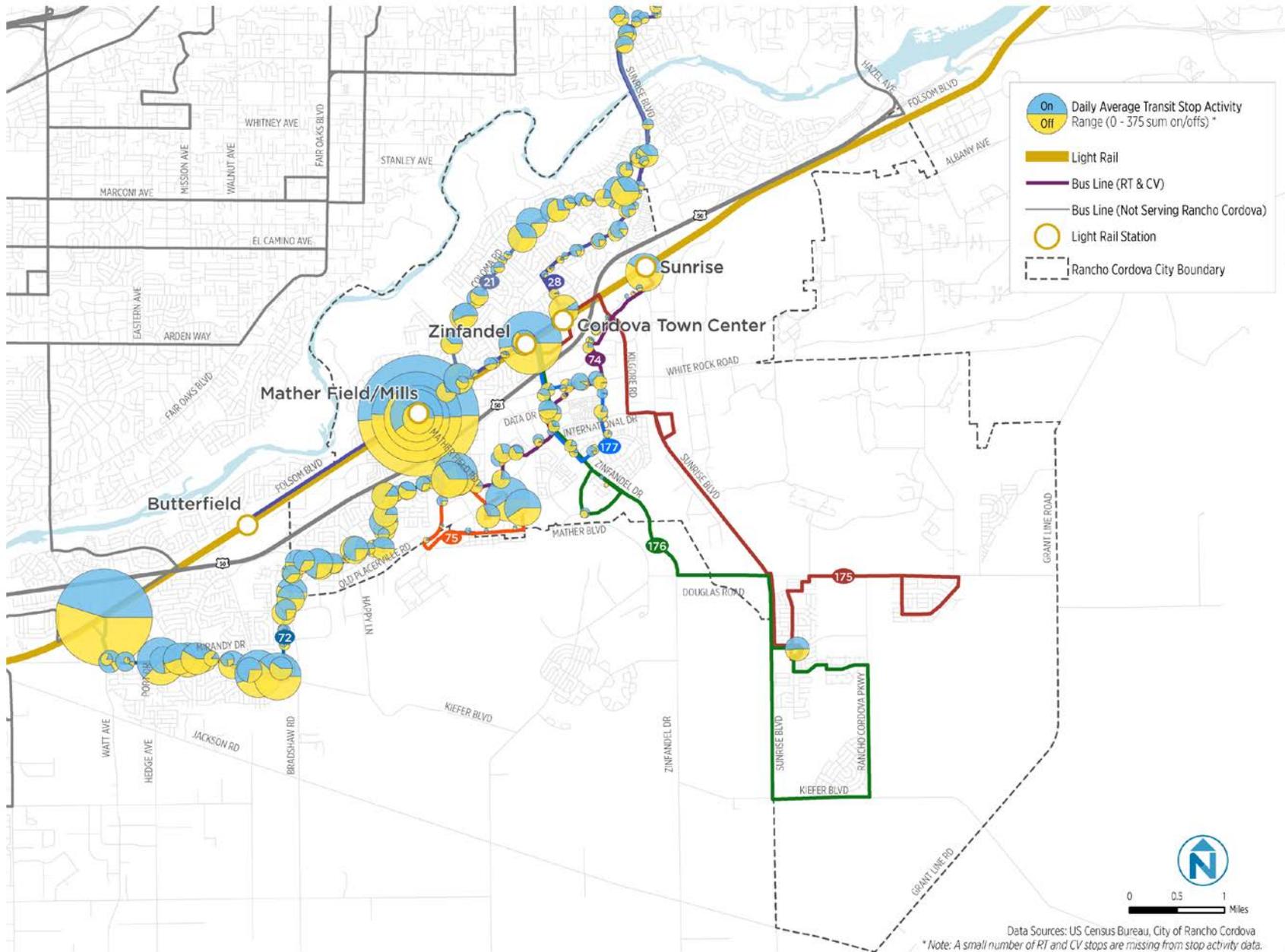
Figure 26 CordoVan Ridership by Month and Route, 2014 - 2017



Source: Sacramento Regional Transit District and City of Rancho Cordova

Transit Master Plan | Existing Conditions
City of Rancho Cordova

Figure 27 Bus Ridership in Rancho Cordova by Stop



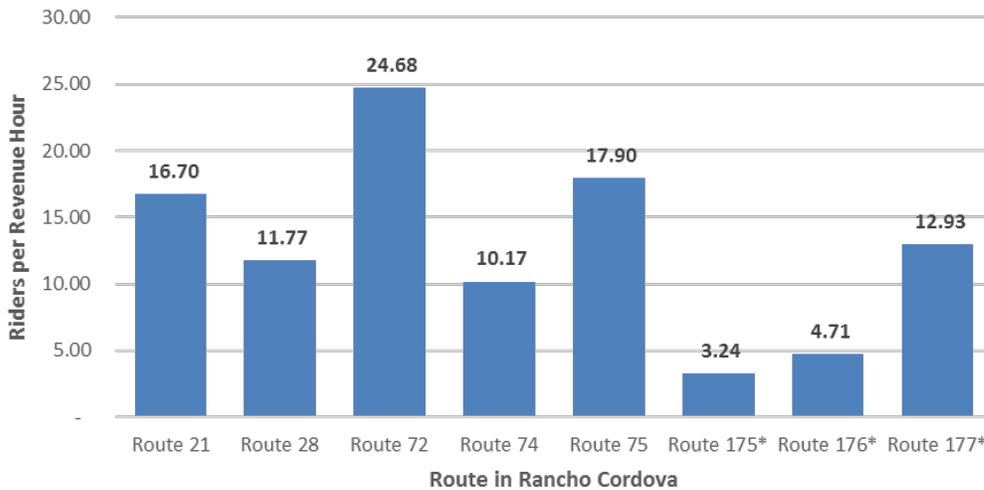
PERFORMANCE

Public transportation performance is reflected in indicators reflecting service productivity in terms of rides per revenue hour, efficiency in terms of rides per revenue hour, and on-time performance. This section summarizes these performance indicators for the eight routes serving Rancho Cordova, with information about comparisons to the entire RT system and service goals.

Figure 28 shows the number of average daily rides per revenue hour, by route. The highest ridership per revenue hour, or the most productive, is 72, which operates between the Mather Field light rail station and Rosemont. Route 75 was the next highest, which provides seven day service from the Mather Field light rail station and around Mather Field area where several of the City’s largest employers are located, including the Veteran’s Affairs Medical Center. Route 21, the third highest, provides week-long service between Rancho Cordova and Citrus Heights. The most productive CordoVan route was Route 177, which operates between the Zinfandel Station and the City’s most densely developed professional employment center.

The RT Community Bus System goal for fiscal year 2017 was 8.06 passengers per revenue hour, and the Regional Bus goal was 18.63 passengers per revenue hour. This put Route 72 and Route 177 above the goal. Like ridership, the riders per revenue hour indicator value has declined since 2014, as ridership has decreased with no significant change in service hours.

Figure 28 Average Daily Riders per Revenue Hour in Rancho Cordova



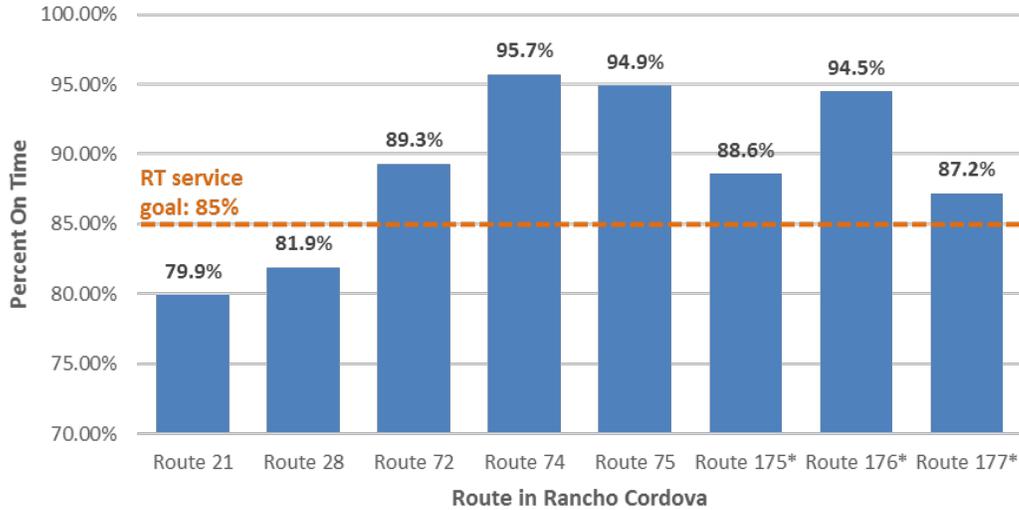
Source: Sacramento Regional Transit District

On-time performance indicates the percent of time points where the bus was on-time according to the transit system’s service goals. On-time performance can be affected by many factors; two common factors are vehicle traffic and the number of boardings and alightings exceeding the time allotted for each stop. Sacramento Regional Transit defines on-time for buses as leaving a time point no later than five minutes after the scheduled departure, and never earlier. Sacramento Regional Transit’s on-time performance goal for fixed-route buses is 85 percent or higher.

Figure 29 illustrates weekday on-time performance for buses routes in Rancho Cordova in Quarter 2 of 2017. On-time performance in Rancho Cordova was high, with an average of 89%. Only Routes 21 and 28 were below the regional service goal. Of the CordoVan routes, Route 176 had the best on-time performance at 94.5%, while Routes 176 and 177 were at 88.6% and 87.2%, respectively. Route 177 has strong ridership and crosses the Zinfandel interchange, which

experiences significant recurring delay, suggesting operating under a tight schedule. Route 21 is on time 80% of the time, on average; this 11 mile route between Citrus Heights and Rancho Cordova traverses high traffic congestion area such as Sunrise Boulevard.

Figure 29 Weekday On-Time Performance



Source: Sacramento Regional Transit District Quarterly Ridership Report, 2017 Quarter 2

Figure 30 summarizes productivity, effectiveness and on-time performance indicators for each of the routes serving Rancho Cordova. The table includes indicators in addition to the three shown above, the data required to calculate them, and RT performance goals for fiscal year 2017. The additional indicators include:

- Passengers per service hour,
- Passengers per revenue mile,
- Operating cost per revenue hour,
- Operating cost per passenger, and
- Farebox recovery (not including Rancho Cordova subsidy to RT).

RT considers the CordoVan part of its Community Bus System, which has performance goals and service delivery methods separate from the Regional Bus system. The relevant performance targets are shown separately in the last column. Targets are not provided for indicators or data points with no target shown.

Transit Master Plan | Existing Conditions
City of Rancho Cordova

Figure 30 Weekday Transit Performance Summary, 2017

	RT Regional Bus					Rancho CordoVan			Sacramento Regional Transit 2017 Targets
	Route 21	Route 28	Route 72	Route 74	Route 75	Route 175	Route 176	Route 177	
Revenue Hours (includes layover)	68	29	44	18	10	7	7	8	
Hours of Service (Span)	18	14.5	16.3	14.5	13.3	6.3	6.3	7.0	
Revenue Miles	882	353	430	143	74	136	115	105	
Passengers	1,129	339	1,076	182	179	22	32	97	
Passengers per Revenue Hour	16.7	11.8	24.7	10.2	17.9	3.2	4.7	12.9	Bus: 18.63 CBS: 8.06
Passengers per Service Hour	62.7	23.4	66.2	12.6	13.5	3.5	5.1	13.9	
Passengers per Revenue Mile	1.3	1.0	2.5	1.3	2.4	0.2	0.3	0.9	Bus: 1.67 CBS: 0.56
Operating Cost	\$9,548	\$4,068	\$6,158	\$2,528	\$1,412	\$1,000	\$1,000	\$1,103	
Operating Cost per Revenue Hour	\$141				\$147				Bus: \$145.57 CBS: \$172.88
Operating cost per passenger	\$8.46	\$12.00	\$5.72	\$13.89	\$7.89	\$45.47	\$31.26	\$11.38	Bus: \$7.81 CBS: \$21.45
Fare Revenue	\$1,467	\$440	\$1,398	\$236	\$233	\$29	\$40	\$125	
Farebox Recovery Ratio	15%	11%	23%	9%	16%	3%†	4%†	11%†	20%
On-time performance	80%	82%	89%	96%	95%	89%	95%	87%	85%

Sources: City of Rancho Cordova Monthly Reports (Routes 175, 176, 177); Sacramento Regional Transit District's 2017 Quarter 2 Performance Report, and September 2017 Ridership Report.

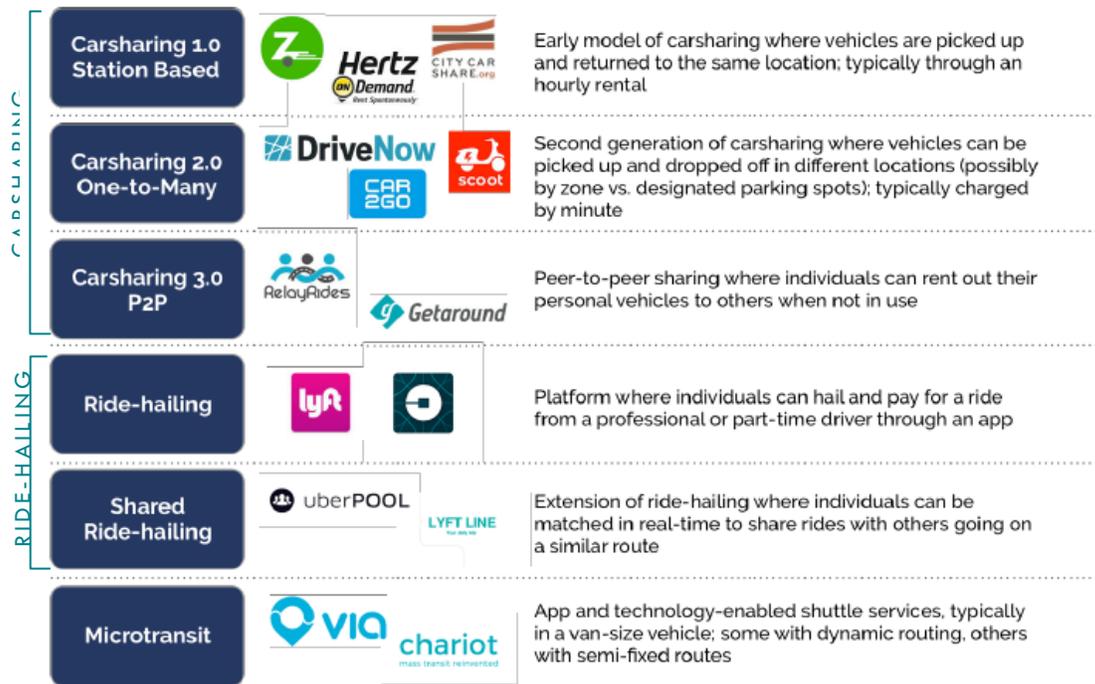
* Bus indicates the RT's Regional Bus system and CBS indicates the Community Bus System, or CordoVan.

† Farebox recovery including Rancho Cordova subsidies to reduce Cordovan fare price are 48% to 50%.

5 OTHER CONSIDERATIONS

There are a wide range of mobility services evolving and adapting to today's transportation needs. Figure 31 summarizes several categories of innovative shared-mobility transportation services, from car sharing to microtransit, that have potential to benefit Rancho Cordova's public transportation markets. These services provide different technologies and service models. This section provides a summary of alternative mobility and public transportation strategies. The focus is on innovative approaches to update existing service models or offer new approaches to service altogether.

Figure 31 Mobility Service Examples by Type



Source: "Disruptive Transportation: The Adoption, Utilization and Impacts of Ride-Hailing in the United States," UC Davis Institute of Transportation Studies, 2017.

Car Sharing

Car sharing emerged in the 1990s with private business models offered by companies such as Zipcar. Customers join a membership program allowing them to reserve and drive a vehicle themselves, and pay on an hourly basis. The vehicles are typically located in accessible locations in urban neighborhoods and allowed keyless entry. Users in traditional station-based car sharing programs are expected to return the car to the same location.

One-to-many systems have developed more recently, and allow users to return the vehicle to any location within the service area, facilitating one-way trip use that has increased the applicability of car sharing for first-last mile trips to public transportation. Peer-to-peer systems have developed more recently to offer a way for individuals to “rent” to other individuals.

Partnerships between car sharing services and public transportation agencies have included offering parking space for vehicles in station-based and one-to-many programs.

Bike Sharing

Bike sharing is ideal for short-distance point-to-point trips. Some bike share systems use dock stations. Customers pick up a bike at one self-service docking station and return it to any other station within the service area. Dockless bike share allows people to pick-up and drop-off bikes anywhere in the service area. Bike share complements transit, and is often seen as an extension of the transit system itself, allowing users to easily and inexpensively complete the first or last mile of their trip.

Rancho Cordova has a one year contract with [LimeBike](#), a dockless bike sharing company. LimeBike serves 25 cities and 12 Universities across the U.S. In Rancho Cordova, Lime Bike will provide over 100 bikes, some of which will be electric bikes (e-bikes). People use the app to find, unlock, and ride the bikes. People who ride LimeBike can choose from a couple different payment options. The “Pay as you go” plan costs \$1 for 30 minutes of riding. Monthly memberships cost \$30 for 100 rides plus an additional \$0.50 for all rides exceeding 30 minutes. LimeBike is expected to launch in April 2018 and the city is currently working with LimeBike to determine which locations are ideal for bike share (i.e., light rail stations, major employers, and the recreational trail system). Visit the [project website](#) for updates about LimeBike in Rancho Cordova.



Source: Getting Around Sacramento Blog

An electric bike share system—JUMP—will be launching in the neighboring cities of Davis, Sacramento, and West Sacramento in May 2018 with 300 e-bikes. An additional 600 e-bikes will be available in summer 2018. The new bike share system will be the largest electric-assist bike share system in North America and was made possible by a unique public-private partnership between Social Bicycles (SoBi), the Sacramento Area Council of Governments (SACOG), and the cities of Davis, Sacramento, and West Sacramento.

Ride-Hailing

Since emerging as a transportation service around 2009, Transportation Network Companies (TNCs) have provided on-demand transportation to members of the general public. The

companies connect personal vehicle drivers with passengers, enabled by smartphone mobile applications to facilitate reservations, payment, and a customer service rating system.

TNC's were initially called carsharing services, which was a misnomer because drivers were offering a service similar to a taxi, and not sharing a destination or route. However, TNCs do offer "ridesplitting" to allow customers to split the cost of a shared ride. Lyft and Uber have developed technology to match passengers requesting service along similar routes, enabling customers to share rides (i.e. UberPool and LyftLine). For more on carsharing, see "dynamic carpooling", below.

TNCs have increased their efforts in partnerships through marketing and business development focusing on a message of mutual benefits. Where service is infrequent and demand is low, a public transit agency can avoid costs between trips (i.e. non-revenue service), if it is not offering guaranteed availability on-demand.

Several formal partnerships have formed between TNCs, municipalities, public transit agencies, or private employers, including:

- Leveraging partner subsidies to offer lower fares to general public and/or paratransit customers;
- Contracting drivers to provide mobility where fixed-route buses were underperforming;
- Augmenting public transit with first/last mile access to and from bus stops, both at market rates or lower rates with public subsidies;
- Partnering with employers or other business groups such as Transportation Management Associations for local mobility to/from bus stops; and
- Publicly subsidized fares for target populations, such as people with low-incomes or medical patients.

Rancho Cordova is exploring TNC partnerships through a Transportation Demand Management pilot program in 2018. The pilot program is intended to reduce personal car use by offering subsidized first/last mile trips to Gold Line stations.

Dynamic Carpooling

Dynamic carpooling, also known as on-demand rideshare, is a real-time carpooling arrangement, generally made through mobile smartphone applications. This model does not require pre-scheduling nor long-term participation commitment, as is typical in traditional ride matching programs. Companies continue to develop business models and technology to enable carpooling for drivers and passengers on a similar "route" (e.g. Waze Carpool, Scoop).

Key elements to a successful on-demand rideshare program include:

- **Critical mass:** There has to be enough people going relatively close to the same place at the same time to have enough riders and drivers to ensure a successful round trip. In cases where critical mass is not sufficient (which is sometimes the case during early implementation), programs have supplemented carpooling with costly shuttle service or guaranteed ride home services to build support.
- **Driving or parking incentives and restrictions:** HOV lanes, priority parking for carpools, and/or restricted or expensive parking incentivize carpooling.

- Experience with the sharing economy: Some people are much more open to sharing a car with a stranger than others. Identifying these preferences early on can help design a successful on-demand rideshare program.

Dynamic carpooling services have sought partnerships with public agencies where laws require reductions in commute travel, and where agencies have facilitated programs to shift people away from drive-alone trips. The Highway 50 Corridor Transportation Management Association offers these services in Rancho Cordova; the City has an annual funding agreement to develop and maintain commute reduction programs.

Microtransit

Microtransit refers to a publicly or privately operated bus system – typically with vans or small buses – that provides service on dynamically generated routes. A distinguishing feature is the ability to quickly adjust service areas according to observed demand and/or requested stop locations. Microtransit operators use real-time information such as traffic conditions and rider requests to make route and stop choices, in contrast to common public transportation that requires reservations or a predetermined network of stops and routes. Microtransit typically offers premium transportation features such as guaranteed (reserved) seats and wireless internet access on board.

Some publicly operated microtransit services have been designed to have at least one fixed bus stop, or “anchor,” at popular transit stations or park-and-rides, and provide on-demand service to destinations within a designated service area. Destinations can be transit stops or other locations. In some cases, private companies (e.g. Bridj, Chariot) operate their services independent of local public transportation agencies. Other companies offer a software platform (e.g. Via, TransLoc) that lets public transportation agencies deliver dynamic routing on bus services with agency vehicles and drivers. The companies have offered driver- and customer-side mobile applications.

West Sacramento is implementing microtransit through a software service in 2018, which will provide real-time route scheduling to the locally-owned and operated vehicle fleet.

Autonomous Vehicles

Autonomous vehicles have been grouped in five categories of technology assisting driving¹. Levels one through three (driver assistance to conditional automation) rely on a driver to pilot the vehicle with varying levels of automated functions. Levels four and five (high to full automation) allow driverless operations. Operational models are expected to range from personal mobility (individual vehicle owners and users) to shared mobility (subscription-based and bundled transportation services).



An autonomous shuttle in Las Vegas operates between 11 a.m. and 7 p.m. six days a week. Source: Vital Vegas Blog

Autonomous vehicle technology could lead to vast shifts in the way transit services operate. Labor often represents a major share of transit operating costs, and while eliminating bus and paratransit driver jobs would have major societal implications, doing so could substantially reduce the cost of transit service.

Research and development activity around autonomous vehicle technology continues to develop, with pilot services in a number of cities across the United States and around the globe. Once driverless vehicles are available for widespread consumer use, they are expected to steadily gain market share and carry a major portion of motorized passenger travel within two or three decades.² The exact timeline will not be clear for some years, given unknowns about the technology itself and the regulatory efforts that will shape it.

California recently developed regulations permitting companies to test autonomous vehicles under specific conditions, ensuring relatively rapid development in California. Rancho Cordova is participating in SACOG workshops on shared mobility and emerging technologies.

¹ *Automated Driving Systems 2.0*, National Highway Transportation Safety Administration, 2017; based on Society of Automobile Engineer Automation Level categories.

² A range of technology and transportation theorists estimate driverless vehicles will have 70% to 90% penetration in the market for motorized travel sometime between 2035 and 2055, including:

Rocky Mountain Institute (2016). Estimates from “Peak Car Ownership: The Market Opportunity of Electric Automated Mobility Services” retrieved from <https://rmi.org/insights/reports/peak-car-ownership-report> and http://www.aon.com/japan/product_services/by_specialty/reinsurance/report/20160911-ab-analytics-gimo.pdf and

McKinsey & Company (2015 June). Ten ways autonomous driving could redefine the automotive world retrieved from <https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/ten-ways-autonomous-driving-could-redefine-the-automotive-world>

6 KEY FINDINGS

The market and transit service analysis described in this memorandum point to conditions and trends that may affect public transportation demand and use in the City of Rancho Cordova. The issues below are key findings the project team will carry forward to inform the TMP development.

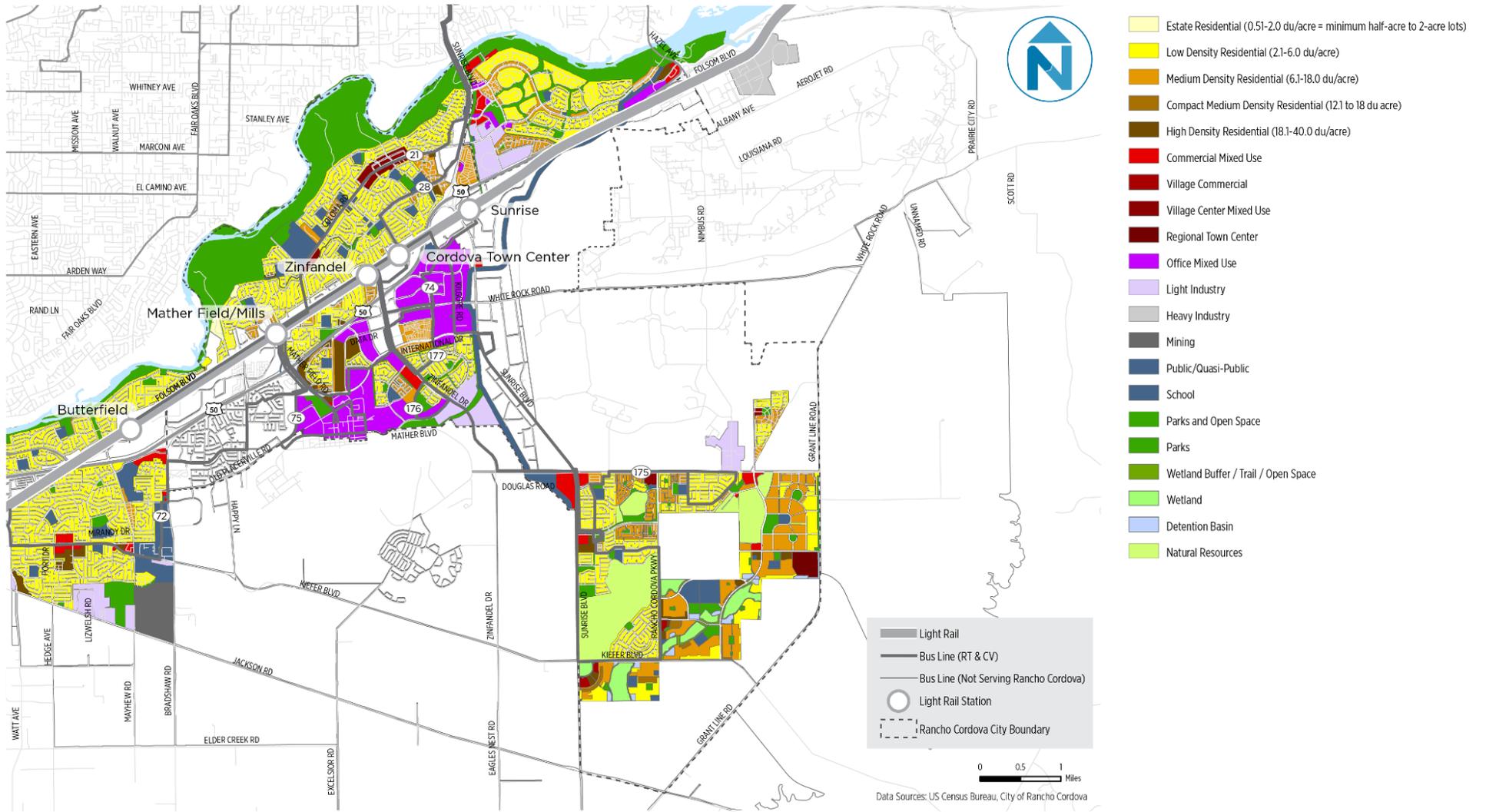
- **Population and employment.** The Rancho Cordova population is expected to grow to over 160,000, and over 360,000 new employees, by 2035. The increase in population and employment may create environments in which local and regional public transportation services are an efficient and effective mobility solution.
- **Household income.** Rancho Cordova had a household median income of \$40,100 in 2010 and \$53,300 in 2016—a 33% increase. Increasing household incomes in Rancho Cordova could contribute to reduced ridership on fixed route public transportation, as higher incomes are often correlated with decreases in standard bus transit use.
- **Older adult and youth populations.** Trends show an increase in Rancho Cordova's older adult population. Where older adults live and their specialized travel needs will influence the future transit demand in Rancho Cordova, as this population often benefits most from flexible, door-to-door transportation service that is not available to much of the area's residents.
- **Commute flow and regional connections.** Of the over 52,000 people employed in Rancho Cordova, only 9% live there. Ninety-one percent of the Rancho Cordova's workforce travel in from surrounding cities, and 84% of resident workers travel outside the city for work. Commuters, therefore, continue to be an important and critical market to serve and plan for.
- **Transit performance.** Two Regional Bus, and two CordoVan routes are performing well below expected targets, even when the regional downward trend in ridership is taken into account. While the TMP is a long-range plan, short-term improvements to improve performance can ensure the City maintains services to best meet customer needs today.
- **Route coverage.** Today there are gaps in both geographic and temporal service coverage in Rancho Cordova. Regional Bus routes connect to the community on the north side of Folsom Boulevard and Highway 50, and the CordoVan operates to neighborhoods south of the corridor. No routes provide connections across the corridor, creating a travel barrier from some customers' perspectives. Similarly, CordoVan routes are available only during weekday commute hours (morning and evening), limiting the public transportation system effectiveness for a wide variety of work, study, shopping, and social trips. More information about service gaps will support how services are developed and prioritized.
- **Development patterns and design.** Rancho Cordova is one of the densest and fastest-growing employment and population centers in the Sacramento region. It has created development guidelines and designs that can facilitate transit use and improve

operations. New development, however, is largely focused on low- to medium-density residential developments, with relatively small-scale neighborhood gathering points. Commercial employment locations near the Highway 50 corridor have some high density locations near the light rail stops, but are surrounded by large parking lots to accommodate personal vehicles. Innovative measures to incentivize public transportation use, combined with market-driven public transportation services, could result in more effective transit performance.

APPENDIX A OF TECHNICAL MEMORANDUM #1 Land Use Maps

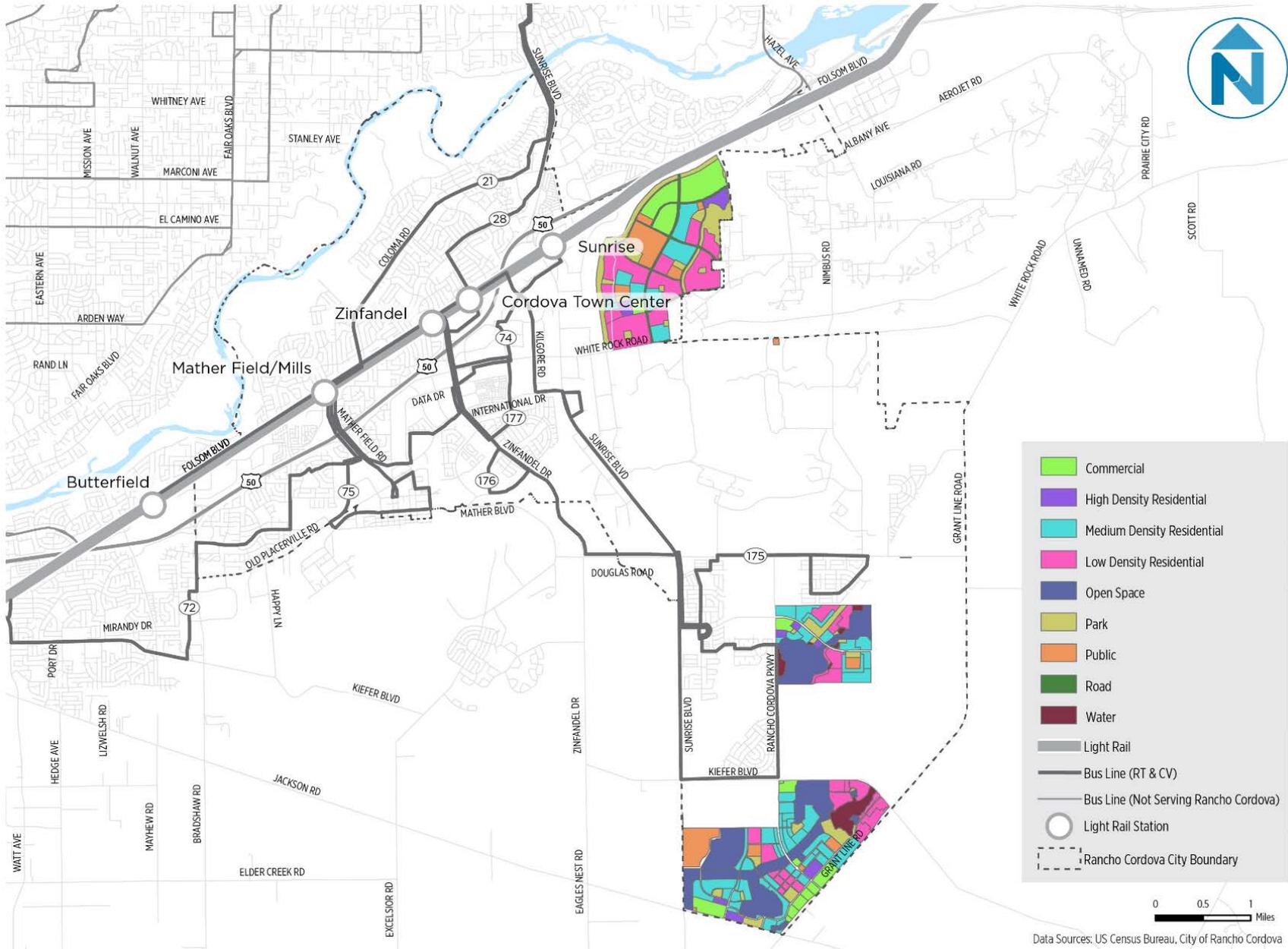
Transit Master Plan | Existing Conditions
City of Rancho Cordova

Figure 32 Rancho Cordova General Plan Map



Transit Master Plan | Existing Conditions
City of Rancho Cordova

Figure 33 Rancho Cordova Future Land Use Map



Data Sources: US Census Bureau, City of Rancho Cordova