SunLine Transit Agency
June 24, 2020
11:00 a.m. – 11:30 a.m.

AGENDA

STRATEGIC PLANNING & OPERATIONAL COMMITTEE
Regular Meeting

****

VIA VIDEOCONFERENCE

Pursuant to California Governor Newsom's Executive Orders N-25-20 issued on March 4, 2020 and N-29-20 issued on March 18, 2020, the Finance/Audit Committee special meeting will be conducted remotely through Zoom. Please follow the instructions below to join the meeting remotely.

INSTRUCTIONS FOR ELECTRONIC PARTICIPATION

Join Zoom Meeting - from PC, Laptop or Phone

https://us02web.zoom.us/j/89750135306
Meeting ID: 897 5013 5306

Teleconference Dial In
888-475-4499 (Toll Free)
Meeting ID: 897 5013 5306

One tap mobile
+16699009128,,89750135306#

Phone controls for participants:
The following commands can be used on your phone's dial pad while in Zoom meeting:
• *6 - Toggle mute/unmute
• *9 - Raise hand

For members of the public wishing to submit comment in connection with the Strategic Planning & Operational Committee Meeting: all public comment requests need to be submitted via email to the Clerk of the Board at clerkoftheboard@sunline.org prior to June 23, 2020 at 5:00 p.m. with your name, telephone number and subject of your public comment (agenda item or non-agenda item). Members of the public may make public comments through their telephone or Zoom connection when recognized by the Chair. If you send written comments, your comments will be made part of the official record of the proceedings and read into the record.

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ITEM **RECOMMENDATION**

In compliance with the Brown Act and Government Code Section 54957.5, agenda materials distributed 72 hours prior to the meeting, which are public records relating to open session agenda items, will be available for inspection by members of the public prior to the meeting at SunLine Transit Agency's Administration Building, 32505 Harry Oliver Trail, Thousand Palms, CA 92276 and on the Agency's website, www.sunline.org.

In compliance with the Americans with Disabilities Act, Government Code Section 54954.2, and the Federal Transit Administration Title VI, please contact the Clerk of the Board at (760) 343-3456 if special assistance is needed to participate in a Board meeting, including accessibility and translation services. Notification of at least 48 hours prior to the meeting time will assist staff in assuring reasonable arrangements can be made to provide assistance at the meeting.

ITEM **RECOMMENDATION**

1. **CALL TO ORDER**

2. **FLAG SALUTE**

3. **ROLL CALL**

4. **PRESENTATIONS**

5. **FINALIZATION OF AGENDA**

6. **PUBLIC COMMENTS** **RECEIVE COMMENTS**

   NON AGENDA ITEMS
   Members of the public may address the Committee regarding any item within the subject matter jurisdiction of the Committee; however, no action may be taken on off-agenda items unless authorized. Comments shall be limited to matters not listed on the agenda. Members of the public may comment on any matter listed on the agenda at the time that the Board considers that matter. Comments may be limited to 3 minutes in length.

7. **COMMITTEE MEMBER COMMENTS** **RECEIVE COMMENTS**

8. **APPROVAL OF THE FY 2021-2023 REFULED SHORT RANGE TRANSIT PLAN (SRTP)** **APPROVE**
   (Staff: Rohan Kuruppu, Chief Planning Consultant) (PAGE 3-163)

9. **ZERO-EMISSION BUS (ZEB) ROLLOUT PLAN** **APPROVE**
   (Staff: Tommy Edwards, Chief Performance Officer) (PAGE 164-199)

10. **ADJOURN**

SunLine Transit Agency

DATE: **June 24, 2020** **ACTION**

TO: **Strategic Planning & Operational Committee**
Board of Directors

FROM: **Rohan Kuruppu, Chief Planning Consultant**

RE: **Approval of FY 2021-2023 Refueled Short Range Transit Plan (SRTP)**

Recommendation

Recommend that the Board of Directors adopt the FY 2021-2023 Refueled Short Range Transit Plan (SRTP).

Background

The Refueled FY2021-2023 Short Range Transit Plan (SRTP) describes near- and long-term initiatives for SunLine Transit Agency (SunLine) to support the local economy, meet the mobility needs of Coachella Valley, expand transit market share, gain new transit users, and recover from the impacts of the COVID-19 pandemic. The SRTP, updated annually, describes SunLine's short-term operating and capital plans, and identifies Coachella Valley's long-term transit needs for planning and developing funding sources to implement the improvements over a 25+ year planning horizon. This plan represents the local planning efforts of SunLine and gets approved by the Riverside County Transportation Commission (RCTC) and Southern California Association of Governments (SCAG) which are the regional planning agencies for the Coachella Valley.

The SRTP was prepared in accordance with the requirements and guidelines of the California Public Utilities Code, California Transportation Development Act, and RCTC. The SRTP lists projects eligible for Transportation Uniform Mitigation Fee (TUMF) funds administered by the Coachella Valley Association of Governments (CVAG). TUMF funds and collaborative planning efforts with CVAG are essential to deliver the regionally significant transit services and transit-supportive infrastructure projects such as transit signal priority, super stop mobility hubs, high quality transit corridors (HQTC), hydrogen fueling infrastructure, acquisition of buses, improved accessibility to transit, and first mile/last mile solutions. Furthermore, the recommendations of the Refueled SRTP should be modeled and analyzed as a key mobility component of the Nexus Impact Fee Study that supports overall mobility, funding, and project delivery strategies for the Coachella Valley. As a local funding source, TUMF funds are essential to leveraging federal and other discretionary grants.

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This SunLine Refueled: FY2021-2023 SRTP identifies financially feasible improvements that can provide faster and more convenient service to help attract riders. Implementation of these recommendations is contingent on transit demand and recovery from the COVID-19 pandemic. As summarized in Table 4.0 of the SRTP (in the SRTP Tables section), the FY2021 operating budget will remain flat at $40,840,150. The key recommendations are:

- Streamline the transit network as proposed in the Refueled: FY2021-2023 SRTP to provide faster and more convenient service to attract riders. The implementation recommendations will be presented to the public for their review and input.
- Use microtransit solutions to provide service on corridors or select segments of routes to optimize scarce financial resources.
- Delay the 10 Commuter Link between Indio and San Bernardino—originally slated to begin service in May 2020—until California State University, San Bernardino and Palm Desert resumes on-campus classes.
- Delay implementation of Route 111X weekday pilot express service (funded with a CMAQ grant) between Indio and Palm Springs past the scheduled January 2021 start date. The actual start date will be determined by the transit market's recovery.

Refueled implementation recommendations will be prioritized based on public and stakeholder input and the ability to fund and sustain the service and support the COVID-19 transit market recovery efforts. The final implementation recommendations will be well within the confines of the approved operating budget that was built on solid revenue estimates accounting for anticipated revenue losses.

The capital projects listed in Table 4.0 of the SRTP (in the SRTP Tables section) are proposed in the FY2021 SRTP, totaling $6,298,206.

This item was presented to the Board Strategic Planning & Operational Committee and Board of Directors on May 27, 2020 and subsequently staff began outreach meetings with member agencies. Next, staff will further discuss plans with each of the respective cities followed by community engagement and stakeholder involvement through multiple webinars to gather public input and establish implementation priorities. Lastly, staff will hold mandatory public hearings prior to finalizing the plan. The final Refueled service implementation plan will be presented to the Board of Directors for consideration in the fall.

Community and stakeholder input received during the outreach process will result in some changes to the plan. Based on early input received, a minor alignment change was made to proposed Route 4 to operate on Avenida Maravilla, instead of Landau between Vista Chino and Avenue 30 in Cathedral City. Staff also added additional landmarks and better positioned them to enhance the proposed route maps in Appendix B of the SRTP. No changes were made to the actual content of the plan since it was presented to the Board of Directors and the Committee on May 27, 2020.

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Financial Impact

The operating and capital costs have been budgeted for in the FY2021 budget.

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SHORT RANGE TRANSIT PLAN

FY **2021–2023**
FINAL

SunLine TRANSIT AGENCY

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Board of Directors

SunLine was established under a Joint Powers Agreement (JPA) on July 1, 1977, between Riverside County and the communities of the Coachella Valley, which at the time included the Cities of Coachella, Desert Hot Springs, Indio, Palm Desert, and Palm Springs. The JPA was later amended to include the Cities of Cathedral City, Indian Wells, La Quinta, and Rancho Mirage. The JPA's governing board consists of one elected official from each member entity and one county supervisor. SunLine is headquartered in Thousand Palms, California.

Cathedral City:	Raymond Gregory
Coachella:	Megan Beaman Jacinto
Desert Hot Springs:	Russell Betts
Indian Wells:	Ty Peabody
Indio:	Glenn Miller
La Quinta:	Robert Radi, Vice Chair
Palm Desert:	Kathleen Kelly, Chair
Palm Springs:	Lisa Middleton
Rancho Mirage:	G. Dana Hobart
Riverside County:	V. Manuel Perez

SunLine Organizational Structure

Lauren Skiver	Chief Executive Officer/General Manager
Luis Garcia	Chief Financial Officer
Tommy Edwards	Chief Performance Officer
Peter Gregor	Chief Safety Officer
Tamara Miles	Chief Human Relations Officer
Todd McDaniel	Chief Transportation Officer
Brittney B. Sowell	Chief of Public Affairs/Clerk of the Board
Tony Cohen	Chief Maintenance Officer


Skiver

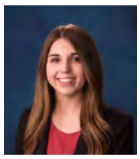

Garcia


Edwards


Gregor


Miles


McDaniel


Sowell


Cohen

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Abbreviations and Acronyms

ADA	Americans with Disabilities Act
BEB	battery electric bus
CARB	California Air Resources Board
CMAQ	Congestion Mitigation and Air Quality
CNG	compressed natural gas
CVAG	Coachella Valley Association of Governments
DBE	Disadvantaged Business Enterprise
FTA	Federal Transit Administration
FTIP	Federal Transportation Improvement Program
FY	fiscal year
ICT	Innovative Clean Transit
IT	information technology
IVT	Imperial Valley Transit
IVTC	Imperial Valley Transportation Commission
JPA	Joint Power Agreement
KPI	Key Performance Indicator
LCTOP	Low Carbon Transit Operations Program
LTF	Local Transportation Fund
MBTA	Morongo Basin Transit Authority
RCTC	Riverside County Transportation Commission
RTA	Riverside Transit Agency
SBTC	San Bernardino Transit Center
SGR	State of Good Repair
SRA	SunLine Regulatory Administration
SRTP	Short Range Transit Plan
STA	State Transit Assistance Fund
TAP	Transit Ambassador Program

TIRCP	Transit and Intercity Rail Capital Program
Title VI	Title VI of the Civil Rights Act
TSP	transit signal priority
ZEB	zero-emission bus

Definitions

Financially Constrained Plan	Funded service improvements
Financially Unconstrained Plan	Unfunded service improvements
Microtransit	A form of demand response transit that offers flexible routing and/or flexible scheduling of minibus vehicles

Executive Summary

This Refueled FY2021-2023 Short Range Transit Plan (SRTP) describes near- and long-term initiatives for SunLine Transit Agency (SunLine) to support the local economy, meet the mobility needs of Coachella Valley, expand transit market share, and gain new transit users. Because every transit trip begins and ends by having to walk or use a mobility device, motorized and nonmotorized mobility, accessibility, and interconnectivity are essential components of planning and developing transit services.

In the midst of these planning efforts, the COVID-19 pandemic of 2020 caused a major national and global disruption with the closures of businesses, schools, and entertainment venues and the enforcement of national and statewide public health policies. In March 2020, the adverse effects of COVID-19 on SunLine's ridership peaked. SunLine's weekday fixed route ridership dropped by 70 percent to 4,300 daily boardings. Paratransit ridership dropped by 80 percent to 100 daily boardings compared to the same month of the previous year. The COVID-19 pandemic and the resulting secondary impacts on the Coachella Valley's economy, employment, and day-to-day life warranted SunLine to change course to immediately support the region's post COVID-19 pandemic recovery efforts.

While Figure ES.1 and Figure ES.2 show a significant drop in ridership in mid-March, ridership leveled off around 5,000 riders per day through April, illustrating that SunLine continues to provide lifeline service to

Figure ES.1 SunLine Fixed Route Average Weekday Ridership 2020 (January – April)

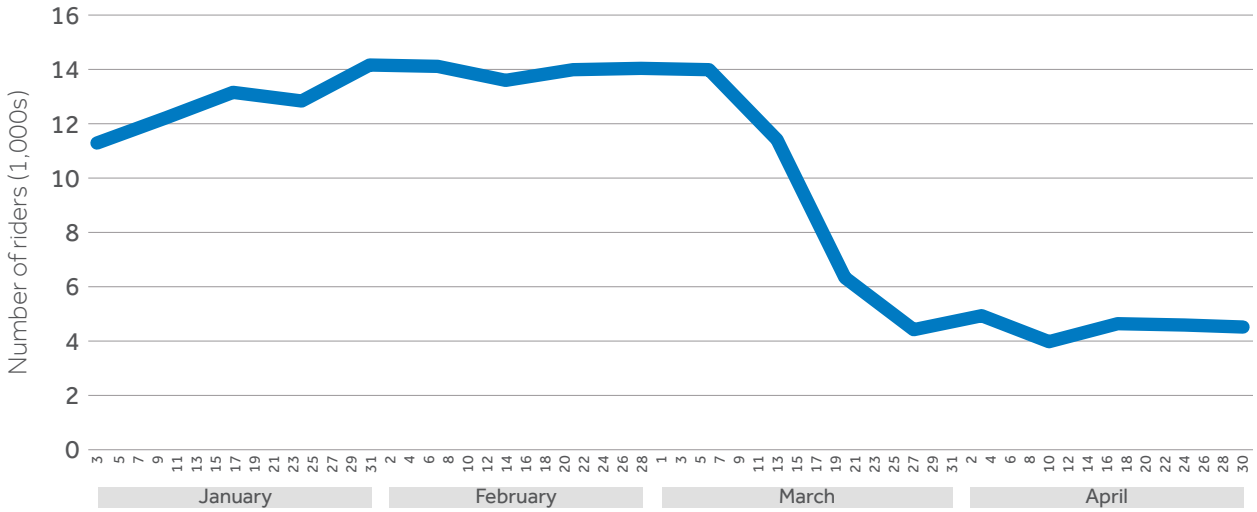
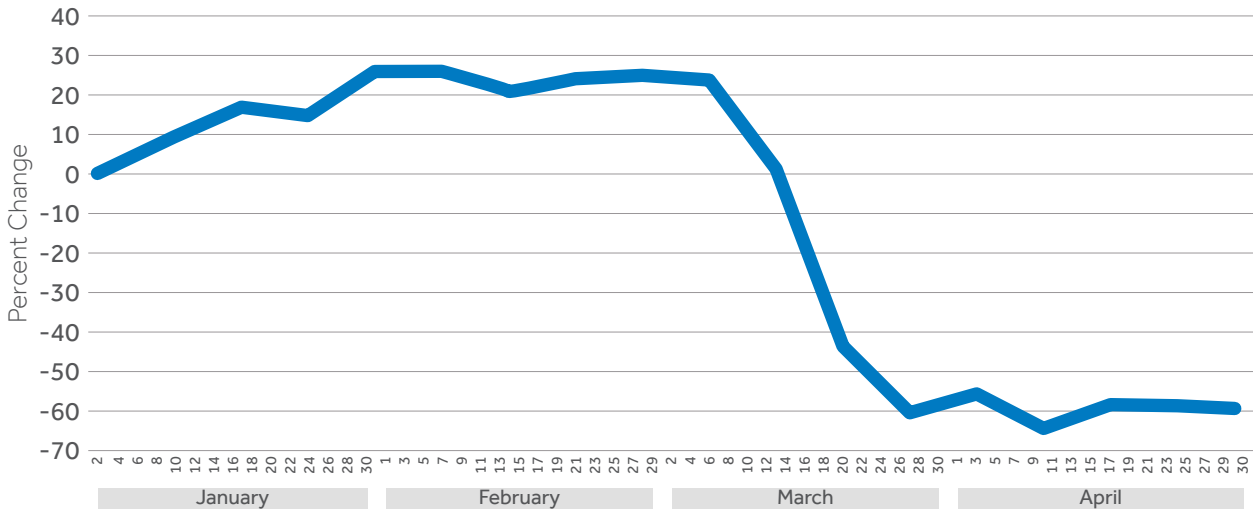


Figure ES.2 SunLine Fixed Route Average Weekday Ridership 2020 (January – April) Percent Change



the community. These efforts included taking those who do not own an automobile to work, doctors' offices, grocery shopping, and to other essential appointments. Recovering and rebuilding ridership from this major disruption is SunLine's highest priority. While continuing to respond to the day-to-day challenges, SunLine will begin implementing a COVID-19 toolbox with strategies and tools to support the recovery efforts of the region and then grow the transit market when it's safe to do so.

Tools for the COVID-19 recovery include:

- Safety and sanitation
  - Rear-door boarding
  - Identify technology options for more efficient bus cleaning
  - Evaluate bus frequencies to minimize crowding
- Fare collection
  - Accelerate move toward Token Transit cashless fare system
  - Establish community partnerships with retail outlets for remote ticketing
  - Separate farebox from driver
- Contingency planning
  - Maintain essential services
  - Prioritize resources to most important routes
- Mass media campaigns
- Audience-specific messaging campaigns

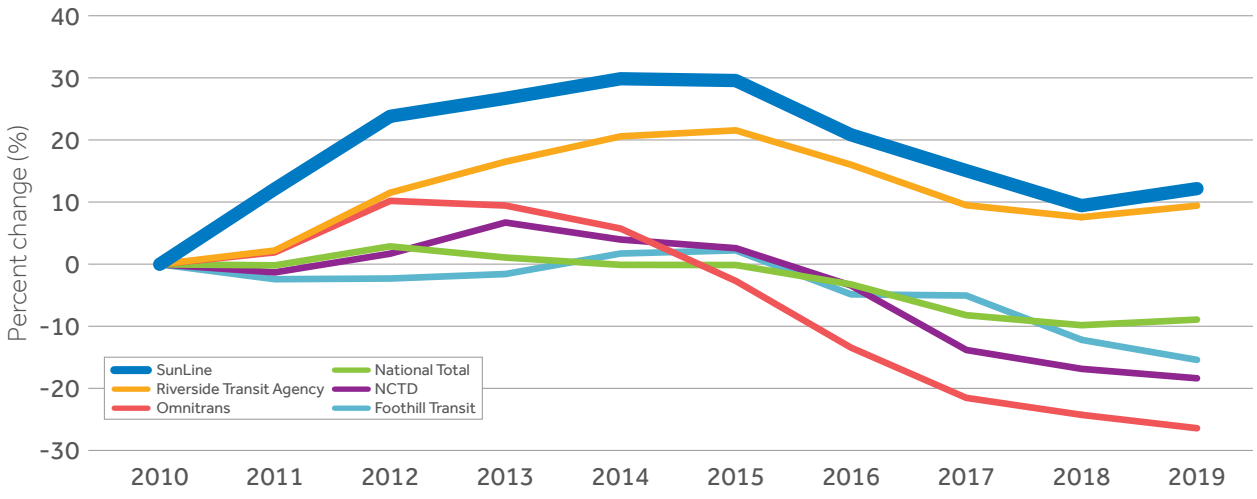
Looking forward, once a state of normalcy is reached, SunLine's bold Refueled: FY2021-2023 SRTP to recast its future, prepared with the guidance provided by the Board of Directors, input received from the residents who use transit, and a robust data analysis will be presented to the public for review and their input.

The core guiding principles of Refueled include:

- Make SunLine's system faster, more direct, and more efficient to attract new riders;
- Streamline SunLine's route structure to focus more resources on the system's most productive bus corridors;
- Develop microtransit solutions to serve low-density service areas and replace low-productivity bus corridors;
- Simplify the fare structure and move to electronic media;
- Update the service standards policy to support performance-driven transit and an emerging service delivery model; and
- Develop the Route 111 High Quality Transit Corridor with transit signal priority, queue jumpers, and Super Stops to facilitate timed transfer connections and intermodal connectivity.

Until the COVID-19 pandemic peaked in March 2020, SunLine was leading its peers with ridership gains since 2010, shown in Figure ES.3, bucking the national ridership trend. SunLine's 2019 onboard rider survey showed a remarkable 93 percent overall customer satisfaction rating. These accomplishments and current initiatives such as the Innovative Clean Transportation program, the College of the Desert microtransit pilot

Figure ES.3 Percent Change Fixed Route Ridership Relative to 2010



Source: National Transit Database Motor Bus and Commuter Bus Annual Unlinked Trips

project, the student Haul Pass program, and the SolVan vanpool program reflect SunLine's ambitious plans to support the Coachella Valley's economy, educational objectives, and quality of life for residents of all ages and abilities.

The Refueled FY2021-2023 SRTP lays out a financially constrained implementation plan based on the best available financial projections and anticipated grants. The service, rolling stock, and support infrastructure improvements that are not funded but are essential to meeting the future mobility needs of Coachella Valley are identified in the financially unconstrained section of the plan.

The financially unconstrained section, or transit needs plan, will guide the development of new financial resources over time to bring these recommendations into reality. Additionally, the financially unconstrained plan is essential to effectively communicate SunLine's operating and capital needs to local, state, and federal funding agencies. Lastly, the plan enables SunLine to collaborate with local jurisdictions, Coachella Valley Association of Governments, Riverside County Transportation Commission, and other funding and planning agencies. The aim is to work together in long-term regional planning and implementation efforts to optimize scarce financial resources and develop and deliver projects jointly.

The plan emphasizes coordination and collaboration with local governments to:

- Establish better multimodal connections to transit;
- Implement street improvements and pedestrian/non-motorized interconnectivity;
- Improve transit efficiency, speed, and reliability;
- Reduce transfers and travel times of the planned and redesigned local bus system;
- Realign routes to serve growing areas of the Coachella Valley; and
- Allocate a greater portion of new funding to implement and expand the transit market share or capture new riders.

This SunLine Refueled: FY2021-2023 SRTP identifies financially feasible improvements that can provide faster and more convenient service to help attract riders. Implementation of these recommendations is contingent on transit demand and recovery from the COVID-19 pandemic:

- Microtransit can provide lifeline service on routes that may have to be discontinued because of low productivity.

- Originally slated to begin service in May 2020, the 10 Commuter Link between Indio and San Bernardino is delayed indefinitely.
- Implementation of Route 111X Weekday Express service between Indio and Palm Springs may also be delayed past the anticipated January 2021 start date.

Other improvement recommendations will be prioritized based on public and stakeholder input and the ability to fund them.

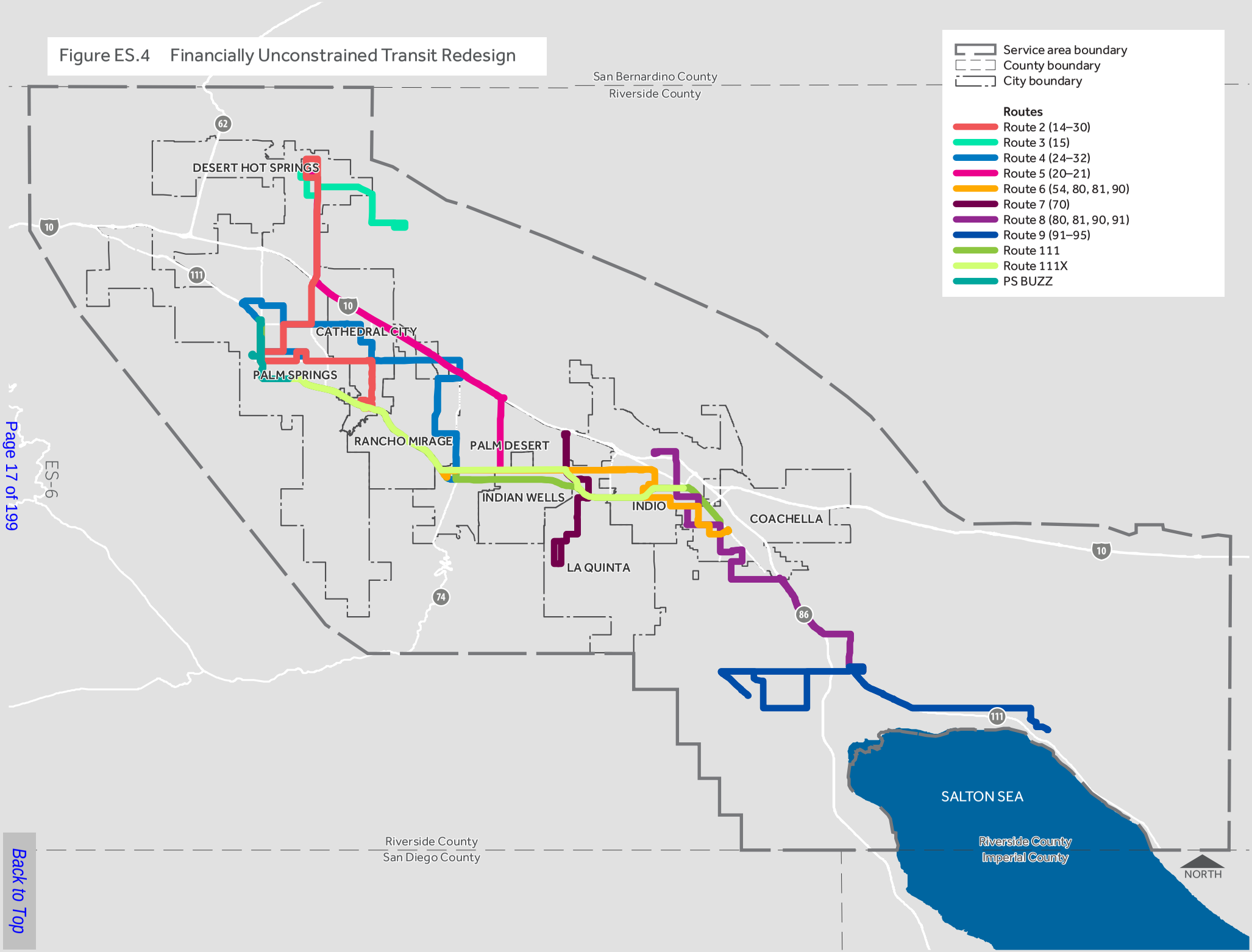
Figure ES.4 shows the financially unconstrained SunLine transit redesign in concept. It would straighten, lengthen, and combine SunLine's existing 15 bus routes into 9 redesigned routes. Rural lifeline transit service to unincorporated areas of Riverside County, such as Mecca, North Shore, and One Hundred Palms, may be provided by on-demand microtransit service. Using microtransit in areas with lower transit demand would allow SunLine to use its existing bus fleet to improve service on its trunk routes.

The staff recommendation is to adopt the financially unconstrained section of the plan in concept as a precursor to the public outreach efforts and preparation of the implementation plan and schedule. The financially unconstrained plan will then be subject to public review and input. Based on the input received from the public, local jurisdictions, and regional planning agencies, the plan will be revised and modeled with ridership and cost projections, and an implementation priority order will be set. This collaborative planning and review process is the cornerstone of the successful plan, and it cannot be a hasty process. The schedule for this critical step is contingent on the communities and the region reaching a level of post COVID-19 pandemic normalcy. Once the plan is refined, it will be presented to the Board of Directors for consideration.

Through its Innovative Clean Transit Regulation, the California Air Resources Board has mandated that public transit agencies transition to zero-emission buses (ZEBs) by 2040. SunLine is ahead of many of its peers in meeting the ZEB targets. However, fleet planning for the Refueled service expansion must be included in the ZEB implementation plan. Shown in Appendix C, this implementation plan shows how SunLine intends to comply with the mandate and when it plans to purchase the buses and build the necessary support infrastructure.

Potential funding for growing SunLine's fleet may be available through the Greenhouse Gas Reduction Fund. The Transit and Intercity Rail Capital Program (TIRCP) helps fund transformative capital improvements that will modernize California's bus transit systems. Refueled has the potential

Figure ES.4 Financially Unconstrained Transit Redesign



to transform how SunLine delivers service. Because the plan will reduce greenhouse gas emissions, vehicle miles traveled, and traffic congestion, the TIRCP is an important potential source for Refueled capital funding needs.

As SunLine seeks grant funding from the TIRCP and other regional, state, and national sources, this Refueled SRTP has a powerful story to tell about SunLine's commitment to exceptional transit service, mobility, sustainability, and clean energy.

This Refueled SRTP has four chapters. **Chapter 1** provides an overview of the system. **Chapter 2** describes route performance and existing service. **Chapter 3** describes Refueled initiatives and identifies potential service changes to implement the recommended route redesign. **Chapter 4** covers the financial and capital plans.

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CHAPTER 1
System Overview and Service Profile

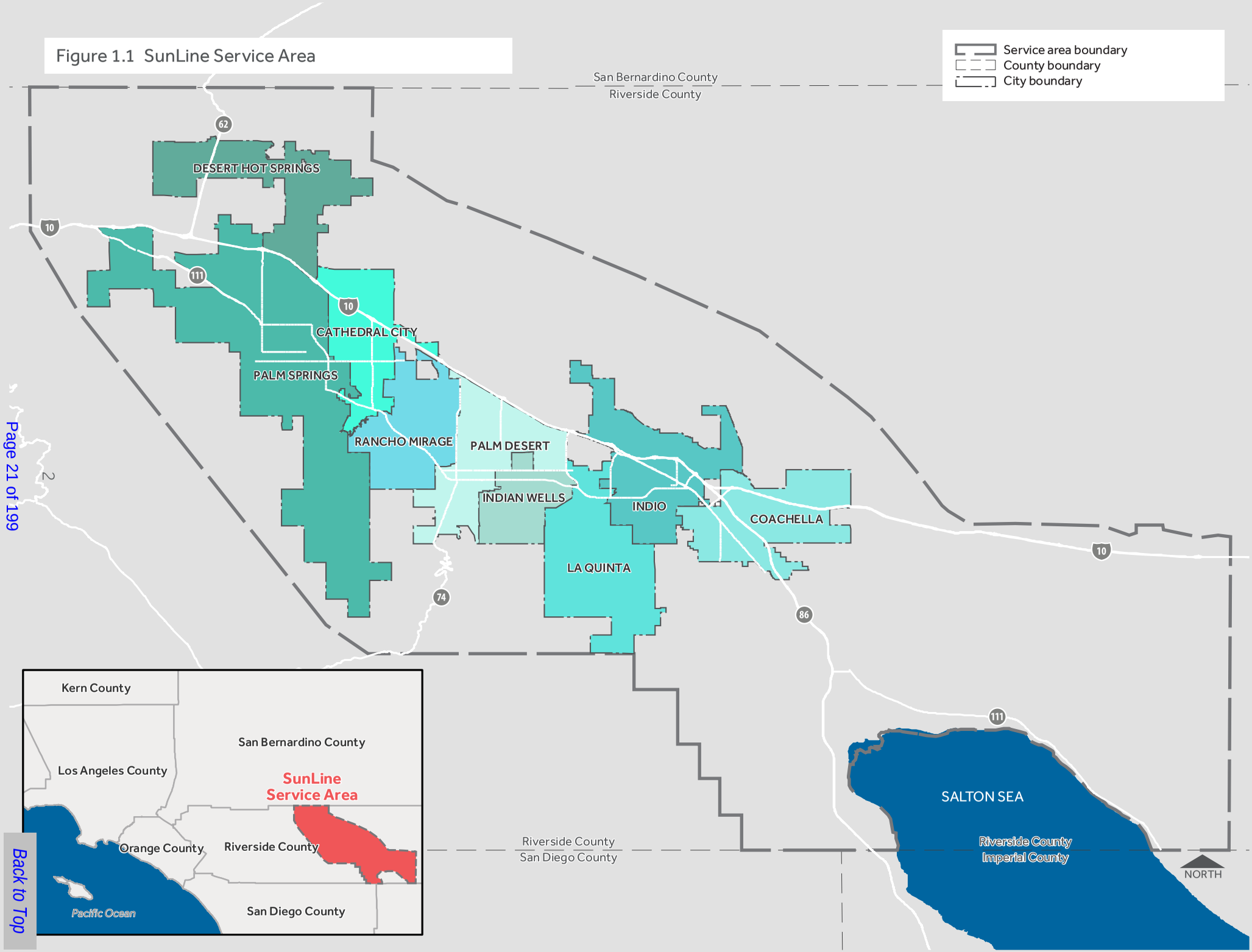
In 2019, SunLine Transit Agency completed a bold plan to recast its transit system. This plan to minimize transfers, reduce travel times, and realign routes to growing, more productive areas—SunLine Refueled—was prepared with guidance provided by the Board of Directors, input from transit riders, and a robust data analysis. SunLine conducted a microtransit pilot project to determine whether smaller vehicles used on demand could eventually replace rural lifeline service currently provided by a 40-foot city bus. It also launched the Haul Pass program to make transit more accessible and easier to use for college and university students.

This first chapter of the Refueled FY2021-2023 Short Range Transit Plan (SRTP) provides an introduction to SunLine. It outlines the baseline service conditions and includes a rider profile, a description of the service area, and a summary of current public transit service.

1.1 Description of Service Area

The SunLine service area covers 1,120 square miles of the Coachella Valley (Figure 1.1). It extends from San Gorgonio Pass in the west to the Salton Sea in the southeast. Located 120 miles east of downtown Los Angeles and 60 miles east of Riverside and San Bernardino, most of SunLine's

Figure 1.1 SunLine Service Area



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service area is located in the Riverside County Supervisorial District 4. SunLine provides service to the following cities:

- Cathedral City
- Coachella
- Desert Hot Springs
- Indian Wells
- Indio
- La Quinta
- Palm Desert
- Palm Springs
- Rancho Mirage

Service is also provided to the Riverside County unincorporated communities of Bermuda Dunes, Desert Edge, Mecca, North Shore, One Hundred Palms, Oasis, Thermal, and Thousand Palms. Within the Coachella Valley region, SunLine provides 150 square miles of fixed route service coverage and 200 square miles of paratransit service coverage.

1.2 Population Profile and Demographics

The 2019 SunLine Transit Rider Survey was an important source of information for the Refueled plan. It gave SunLine staff a ridership profile and described how riders use the transit system. The infographic (next page) shows the demographic characteristics of SunLine's riders.

Demographic Projections

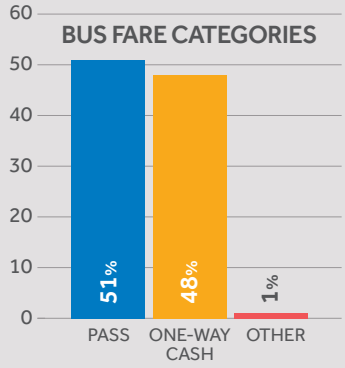
Despite the recent ridership downturn related to the COVID-19 pandemic, population growth in Riverside County and the Coachella Valley will continue to drive demand for public transit services. Refueled is aimed at supporting the local economy by providing better service to Coachella Valley's transit riders. With straighter, more direct routes, the redesigned system will provide more permanent transit corridors to transit-supportive land uses. These high-quality transit corridors, such as Route 111, are productivity-oriented to capture new riders. They are scalable to meet future demand as population grows.

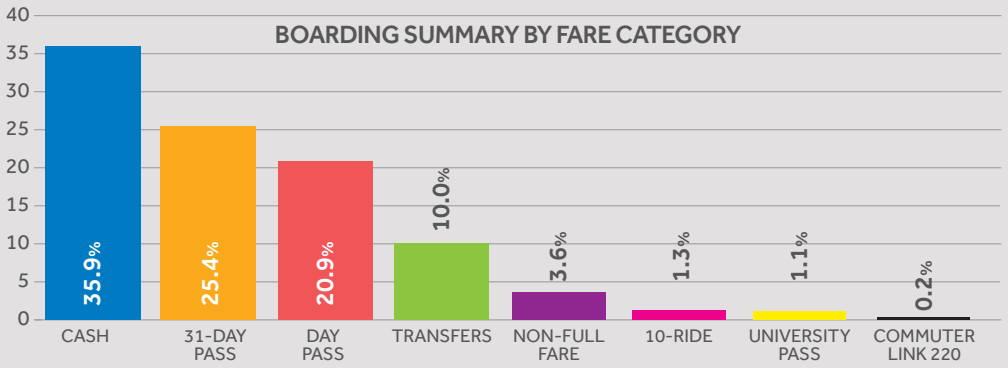
Projections prepared by the Southern California Association of Governments show that the Riverside County population is expected to grow at 1.1 percent rate from 2020 to 2040. This means an increase from 2.5 million people in 2020 to 3.17 million people in 2040. In contrast, Coachella Valley is projected to have a 2 percent higher annual growth rate than Riverside County over the same 20-year period. Population in Coachella Valley cities is projected to grow from 390,000 in 2020 to 600,000 in 2040. Figure 1.2 shows the Riverside County population growth projections through 2060. Figure 1.3 shows the Coachella Valley population growth projections.

POPULATION PROFILE and RIDER CHARACTERISTICS

The SunLine Transit Rider Survey provided a snapshot of passenger characteristics, as summarized here.

BOARDING FARE





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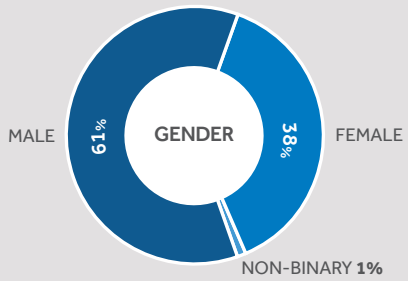

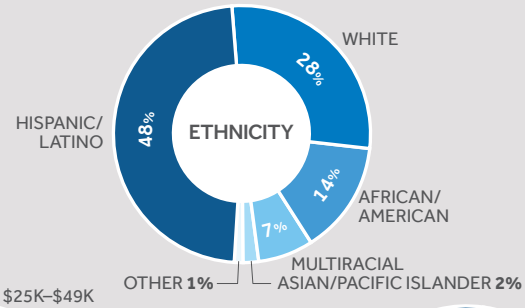

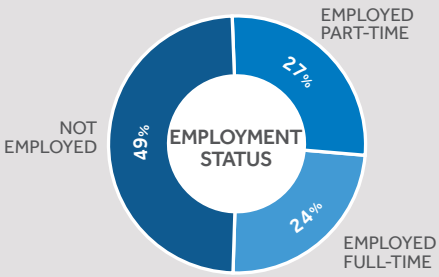

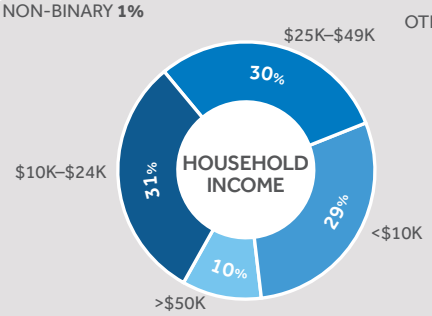

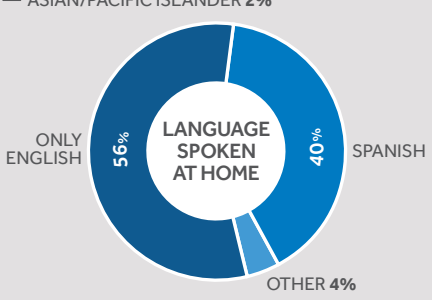

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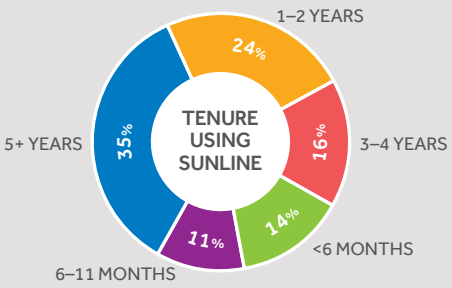
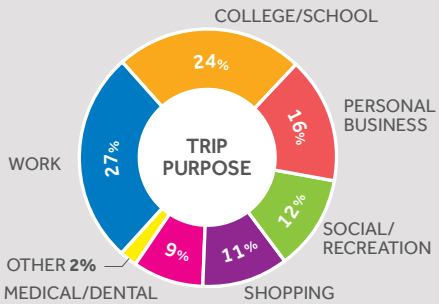
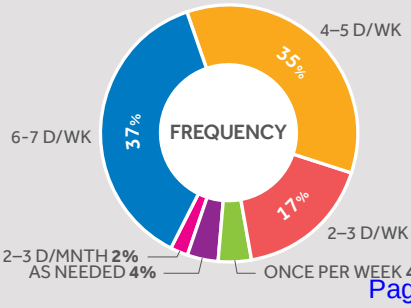






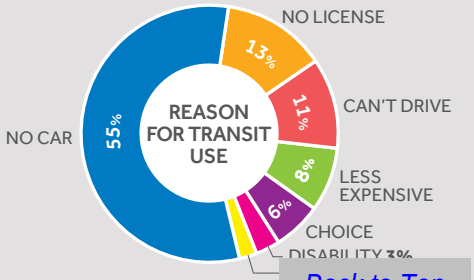


Figure 1.2 Riverside County Population Growth Projections

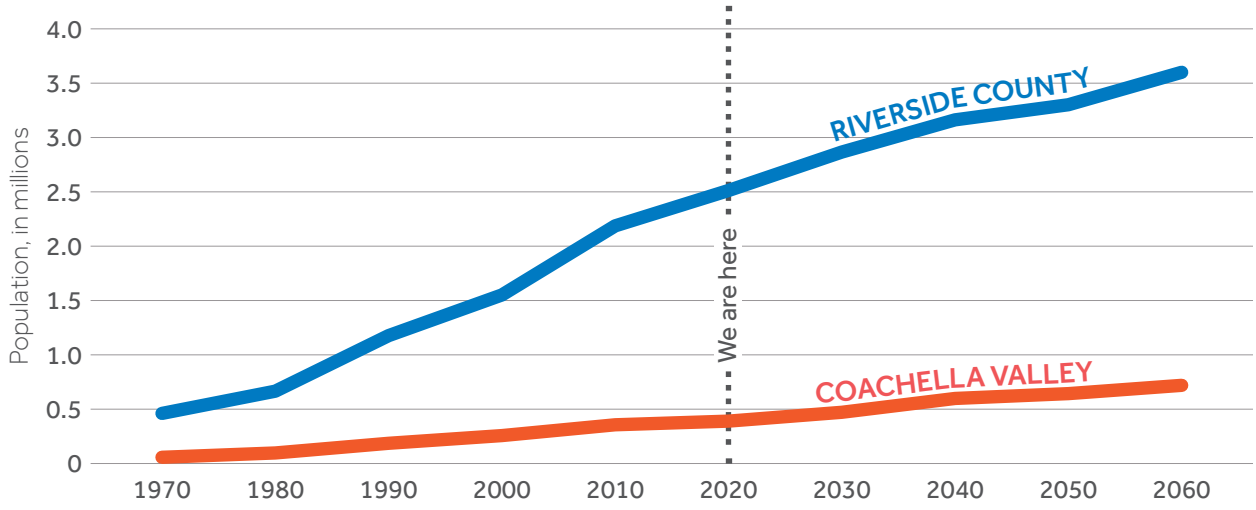
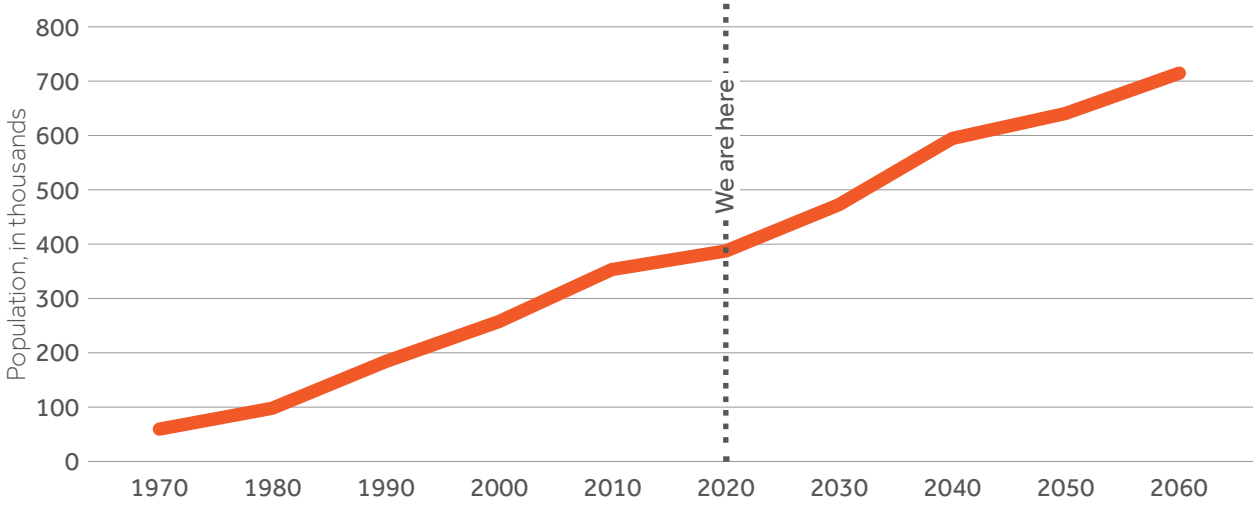


Figure 1.3 Coachella Valley Population Growth Projections



Within Coachella Valley, the cities of Coachella, Desert Hot Springs, and Indio are projected to gain the most population by 2040. These cities are projected to grow as follows.

- Coachella – 103,000 population increase (4.5 percent annual growth)
- Desert Hot Springs – 31,000 population increase (2.7 percent annual growth)
- Indio – 45,000 population increase (1.6 percent annual growth)

Figure 1.4 shows population growth projections for jurisdictions in the SunLine service area.

Disadvantaged communities in California are specifically targeted for investment of proceeds from the State's cap-and-trade program. Senate

Figure 1.4 Growth Projections for Jurisdictions in the SunLine Service Area

City	2012 Population	2040 Population	Difference	Percent Difference (%)
Cathedral City	51,476	68,100	16,624	32
Coachella City	42,400	146,300	103,900	245
Desert Hot Springs City	27,800	58,900	31,100	112
Indian Wells City	5,100	7,200	2,100	41
Indio City	78,800	123,300	44,500	56
La Quinta City	38,300	47,700	9,400	25
Palm Desert City	49,800	61,700	11,900	24
Palm Springs City	45,600	56,900	11,300	25
Rancho Mirage City	17,600	25,000	7,400	42
Unincorporated Riverside County	359,500	487,500	128,000	36
Total	**716,376**	**1,082,600**	**366,224**	**51%**

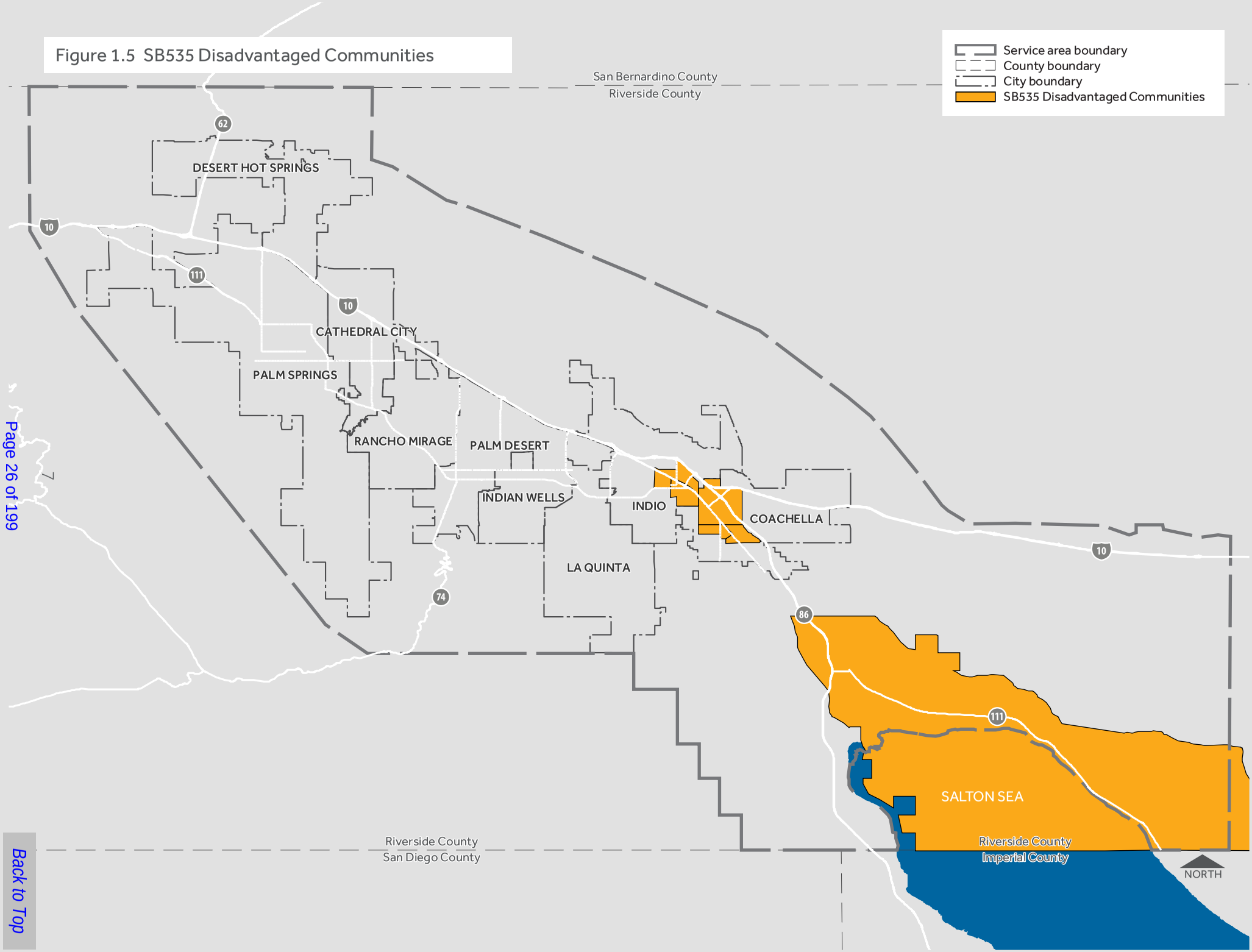
Source: Southern California Association of Governments, 2016.
http://scagrtpscs.net/Documents/2016/draft/d2016RTPSCS_DemographicsGrowthForecast.pdf

Bill 535 mandates that 25 percent of the proceeds from the Greenhouse Gas Reduction Fund go to projects that benefit disadvantaged communities. These investments are primarily aimed at improving public health, quality of life, and economic opportunity in the State's most burdened communities while also reducing pollution. Disadvantaged communities are defined as the top 25 percent scoring census tracts from the California Environmental Health Screening Tool (CalEnviroScreen). The Senate Bill 535 disadvantaged communities within the SunLine service area are illustrated in Figure 1.5.

1.3 Description of Fixed Route and Paratransit Services

SunLine's existing transit service includes local bus, a circulator, a commuter/express bus, microtransit, and paratransit service. Additionally, SunLine's taxi voucher, vanpool, and rideshare programs provide additional

Figure 1.5 SB535 Disadvantaged Communities



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transportation options to residents throughout the Coachella Valley. Each of these service types is described briefly in the following sections.

SRTP Table 1.0 (see SRTP Tables) shows a list of the routes and the areas they serve. Figure 1.6 shows the SunLine system map. Appendix A shows existing route profiles.

Local Bus

SunLine currently operates 15 local routes in its service area. The local bus network is broken down into trunk routes and connector or feeder routes. Trunk routes serve highly traveled corridors with more frequent headways and include Routes 14, 30, and 111. Connector/feeder routes operate in less dense areas and connect to trunk routes. These routes generally operate at less frequent headways and include Routes 15, 20, and 21.

Palm Springs BUZZ

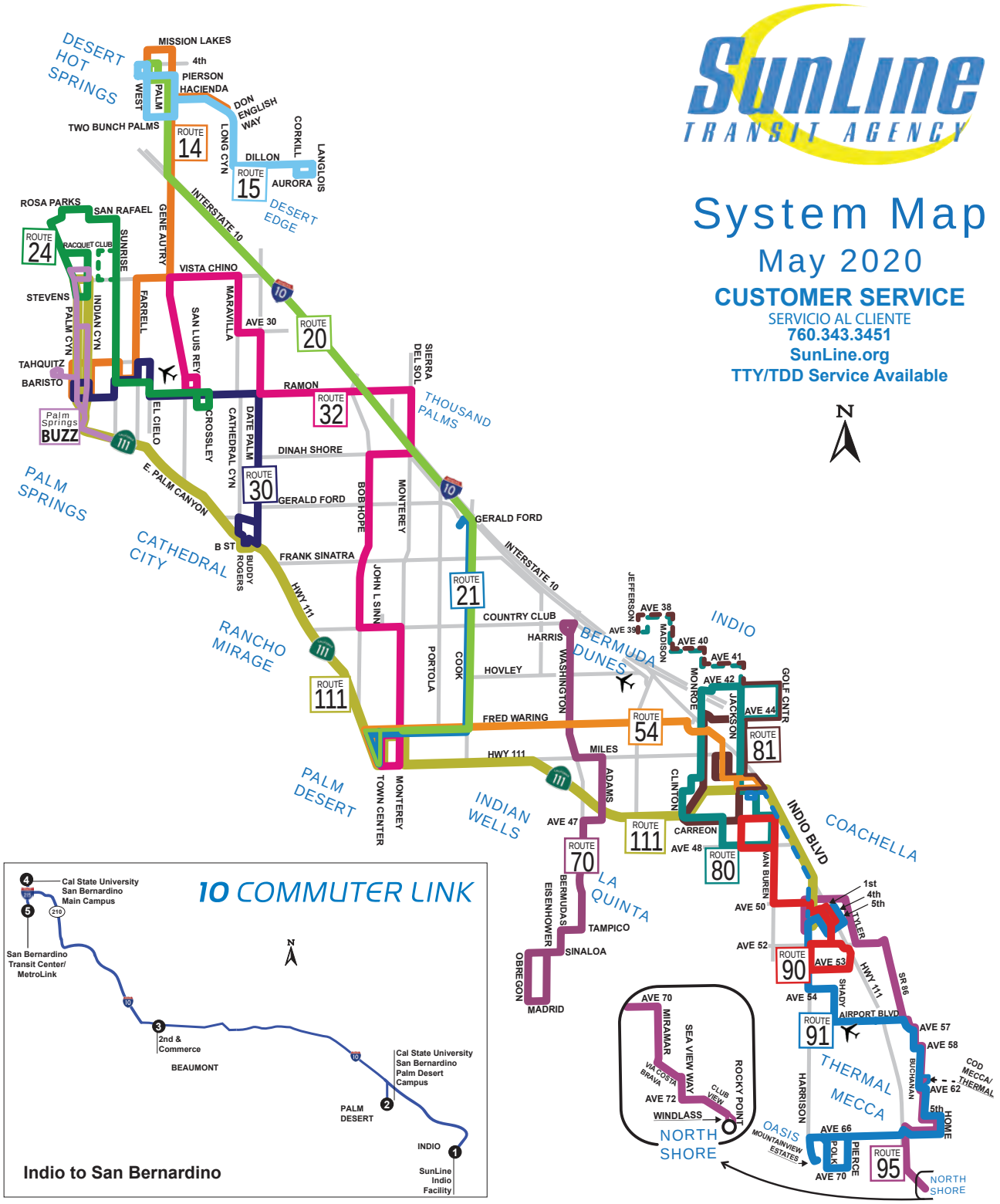
The Palm Springs BUZZ is a free local circulator provided in partnership with the City of Palm Springs that operates in downtown Palm Springs on Thursday, Friday, and Saturday at 20-minute frequencies for a span of 10 hours from 12 p.m. to 10 p.m.

College of the Desert Microtransit Pilot

Microtransit is an emerging transit mode that offers flexible and dynamic demand-driven transportation solutions to areas with limited transit access or where traditional fixed route service is simply not feasible. Microtransit services typically operate with a fleet of smaller vehicles (for example, cutaway vans or buses) in defined zones, with dynamic routing based on real-time demand. Similar to Transportation Network Companies such as Uber and Lyft, users in designated areas simply specify the details of their trips on a mobile application, and a vehicle is summoned to deliver them to their destination. Operating specifics such as service hours and coverage area can be tailored to meet the needs and/or resources of the agency (fleet availability, operating budget, etc.).

In January 2020, SunLine began evaluating on-demand service provided by local taxi companies. This microtransit pilot program is intended to provide additional transportation options for College of the Desert students. The results of this pilot project will guide possible deployment across the Coachella Valley to provide access to the fixed route system and potentially expand the SunLine service area. Figure 1.7 shows the microtransit pilot service area.

Figure 1.6 SunLine System Map



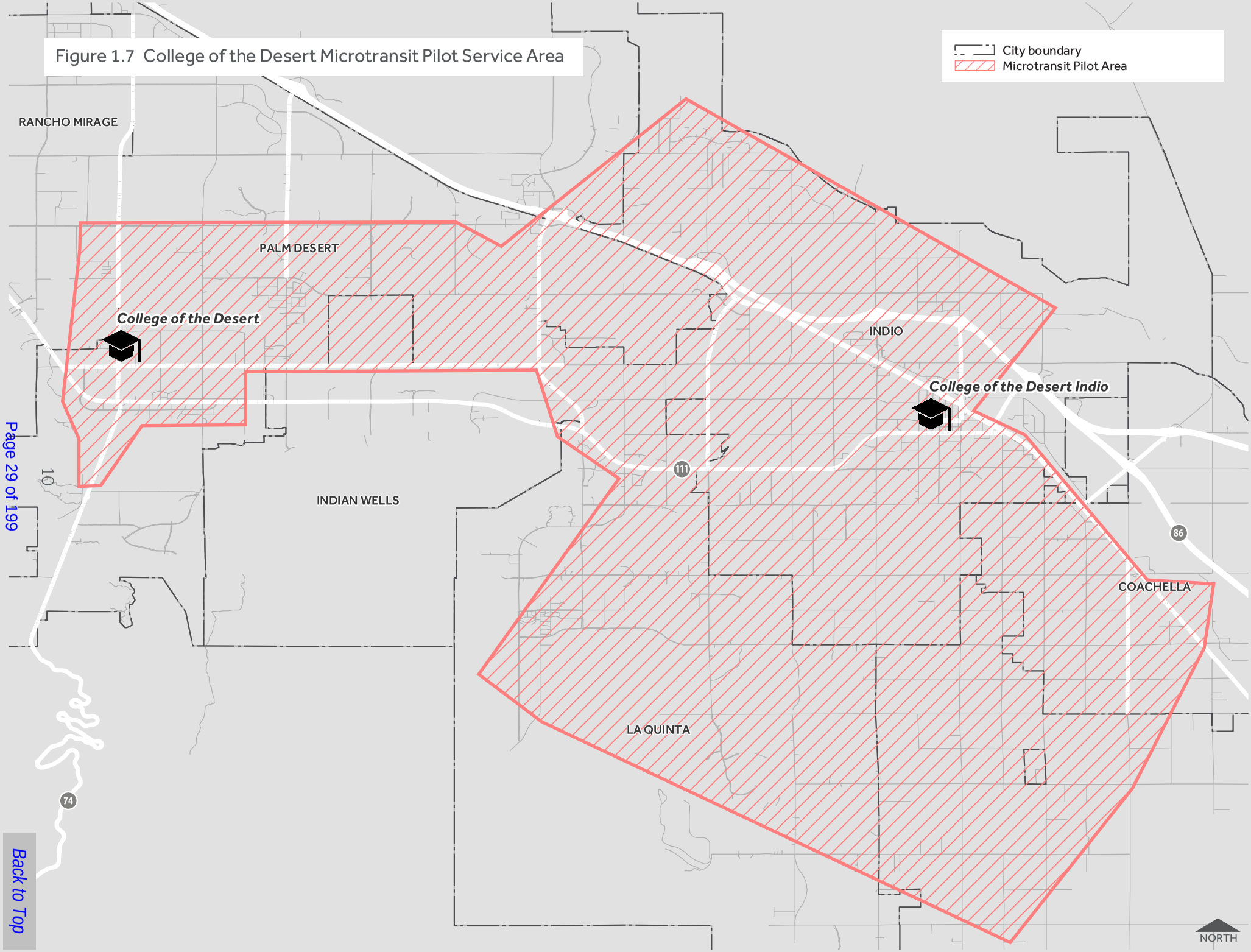


Figure 1.7 College of the Desert Microtransit Pilot Service Area
City boundary
Microtransit Pilot Area
RANCHO MIRAGE
PALM DESERT
College of the Desert
INDIO
College of the Desert Indio
INDIAN WELLS
LA QUINTA
COACHELLA
10
111
86
74
NORTH

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Commuter/Express Bus

Commuter bus routes are those tailored to serve specific travel markets, typically during weekday peak travel periods. Implementation of the 10 Commuter Link with service between Indio and San Bernardino is contingent on transit demand and recovery from the COVID-19 pandemic.

SunDial Paratransit

SunLine operates federally mandated paratransit services. This service, called SunDial, is a shared-ride, origin to destination transportation option that is provided to people with disabilities who are unable, or who have limited ability because of their disability, to use fixed route buses. All public transit agencies that provide fixed route bus and rail service are required by the Americans with Disabilities Act (ADA) to provide parallel paratransit service within 3/4 of a mile of local fixed routes, and days and hours of operation are based on that of the local fixed route network. Commuter and deviated services such as the 10 Commuter Link and Route 95 do not require complementary ADA service.

SolVan Vanpool

SunLine's Vanpool Program, SolVan, provides a subsidy for qualified vans that agree to report about daily riders, miles, hours, and expenses. A SolVan reporting system has been created to track each rider on each vanpool. The driver of the vanpool must be a participant in the vanpool program. Vanpool passengers will be responsible for paying the van monthly lease cost minus the subsidy. The lease cost includes insurance and maintenance. They will also share the cost of gas, toll fees, and parking fees (if applicable). Vehicles for this type of service will be leased by one of the pre-qualified vendors to one of the commuters in the group, a company, or a third-party representative.

Taxi Administration

The SunLine Regulatory Administration (SRA) is charged with licensing and regulating taxicab businesses and drivers in the Coachella Valley.

1.4 Description of Ridership, Revenue Miles, and Revenue Hours by Mode/Route Classification

Figure 1.8 shows the SunLine transit system performance by mode for 2018 and 2019.

Figure 1.8 Transit System Performance, FY2018–2019

Service	Boardings		Revenue Miles		Revenue Hours		Boardings/ Revenue Mile		Boardings/ Revenue Hour	
	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019
Fixed route	3,947,023	4,039,450	3,402,692	3,364,997	231,781	228,131	1.20	1.20	17.00	17.70
On-demand	156,292	155,332	989,084	971,701	66,851	65,911	0.16	0.16	2.34	2.36
Total	**4,103,315**	**4,194,782**	**4,391,776**	**4,336,698**	**298,632**	**294,042**	**0.93**	**0.97**	**13.74**	**14.27**

Source: National Transit Database, 2018–2019

1.5 Current Fare Structure

In 2002, SunLine raised its base cash fare from $0.75 to $1.00. In 2011, a SunLine fare study recommended both eliminating the $0.25 transfer fare and incrementally raising the base cash fare to $1.50. These recommendations were not implemented. The SunLine Board of Directors has given direction to staff to explore fare-free operations.

Figure 1.9 shows the existing SunLine fare structure. This fare structure differentiates fares for specific transit customers and trip types. The multiplier column shows the ratio of the base cash fare to the pass price and is the point where the pass fare per trip matches the per-trip cash payment. The multipliers show how SunLine is targeting specific market segments with discounts to increase the system's ridership and revenue. For example, SunLine provides a discounted 31-day youth pass for students using transit.

1.5.1 Cash Fares

In addition to the $1.00 fare for adult riders, SunLine enforces a $0.25 fee for transfers. The transfer pass is good for unlimited rides within 2 hours of purchasing, and is valid only on the day issued. Transfers are issued only upon boarding.

The base cash fare for seniors, which SunLine defines as individuals 60 years of age or older, is $0.50 on all fixed route services. Individuals that qualify for the ADA also pay a $0.50 base cash fare on all fixed route services. The fare complies with the Federal Transit Administration's (FTA's) Half Fare rule, which requires agencies receiving federal funds

Figure 1.9 Existing SunLine Fare Structure

Fare Type	Price ($)	Multiplier	Fare Type	Price ($)
Adult			Other	
Cash	1.00	—	Transfers	0.25
Day pass	3.00	3.0	CV employer pass	24.00
10-ride	10.00	10.0	University pass	24.00
31-day pass	34.00	34.0		
Youth			Commuter Link 10 Cash	
Cash	0.85	—	General cash	6.00
Day pass	2.00	2.4	Senior cash	4.00
10-ride	8.50	10.0		
31-day pass	24.00	28.2		
Seniors/Disabled			Commuter Link 10 Cash	
Cash	0.50	—	General day pass	14.00
Day pass	1.50	3.0	General 30-day pass	150.00
10-ride	5.00	10.0	Senior day pass	10.00
31-day pass	17.00	34.0	Senior 30-day pass	100.00

to offer fares to persons 65 or over and disabled travelers at a level no more than half the base cash fare. Medicare cards, Department of Motor Vehicles driver's license or senior ID cards, ADA certification cards, or SunLine Half Fare ID cards are accepted as proof of age or disability.

A discounted youth fare of $0.85 is also available for children between the ages of 5 and 17. Children 4 years of age and younger ride free with a paid adult cash fare (maximum of two children).

1.5.2 Fare Passes

SunLine currently issues two types of fare passes: the Day Pass and the 31-day Pass. Daily and monthly passes are available for the 10 Commuter Link service as well, but are priced and sold separately from the general fixed route passes.

Day Pass

The SunLine Day Pass is available for $3.00 and allows for unlimited rides on all fixed routes for the duration of 1 calendar day. In adherence to the FTA's Half Fare rule, the Day Pass for seniors and disabled riders is available for $1.50. The Day Pass for youth riders is $2.00. The Day Pass for the 10 Commuter Link is $14 for adults and $10 for seniors.

31-day Pass

SunLine sells a pass valid for a rolling 31-day period from the date of first use. The 31-day Pass is available for $34 for general adult riders, $17 for seniors and disabled riders, and $24 for youths. The monthly pass for the 10 Commuter Link is a 30-day pass available for $150 (10 Commuter Link operates Monday through Friday only).

Multiple Ride (10-ride)

A 10-ride pass is available for $10.00 for general adult riders, $5.00 for seniors and disabled riders, and $8.50 for youths (ages 5 to 17). There is no discount from the base cash fare for this pass.

Employer Passes

SunLine offers a 31-day pass to businesses in the Coachella Valley that have 5 or more employees interested in using transit. The pass can be used for unlimited rides on any of SunLine's fixed route services and is priced at $24 a month. The pass is $10 less than the 31-day adult pass and is designed to encourage greater use of alternative modes of transportation.

Haul Pass

In August 2018, SunLine launched its Haul Pass Program to improve student access to Coachella Valley's colleges and university. Both the College of the Desert and the California State University, San Bernardino – Palm Desert Campus are partners. To ride SunLine, students of these schools can simply swipe their active student ID card through the SunBus card reader when they board. The program is currently funded through a 3-year grant from the Low Carbon Transit Operations Program (LCTOP).

Token Transit

SunLine riders download the Token Transit application to their smartphone and use it to pay SunLine fares. It requires a credit or debit card to set up an account and purchase bus passes.

1.6 Revenue Fleet

SunLine's fleet includes fixed route buses, paratransit vehicles, and support vehicles. SRTP Table 1.1 (see SRTP Tables) shows the characteristics of

SunLine's fixed route and paratransit fleet. Figure 1.10 shows a summary of SunLine's fleet of support vehicles.

Figure 1.10 SunLine Support Vehicle Summary

Description	Fuel Type	Number of Vehicles
Electric Light Vehicles	Electric	14
CNG Light Vehicles	CNG	18
CNG Light Duty Trucks	CNG	14
Hybrid/Gasoline Light Duty Vehicles	Hybrid	2
	Total	48

Note: CNG = compressed natural gas

1.7 Existing Transit Facilities and Bus Stop Amenities

SunLine operates administrative and bus operations facilities at two locations. Administrative headquarters and main bus operations are located at 32-505 Harry Oliver Trail in Thousand Palms. SunLine also operates a maintenance and fueling facility at 83-255 Highway 111 in Indio. Park-and-ride facilities are located at 78-420 Varner Road in Thousand Palms and at 83-255 Highway 111 in Indio.

SunLine's bus system has 659 stops with 424 shelters. Planning is underway to relocate 12 inactive shelters. In addition, there are 60 stand-alone benches and waste containers at 14 major transfer locations. Figure 1.11 shows the top 10 stops served for weekday service. Figure 1.12 shows the top 10 weekend stops.

1.8 Existing Coordination between Transit Agencies and Private Providers

As the designated Consolidated Transportation Services Agency, SunLine coordinates public transportation services throughout its service area. Staff participates in meetings with social and human service agencies,

Figure 1.11 Weekday Service: Top 10 Stops Served

Stop	City	Average Riders Per Day
Indian Canyon/Ramon	Palm Springs	485
B St/Buddy Rogers	Cathedral City	331
West/Pierson	Desert Hot Springs	254
Baristo/Farrell South Side	Palm Springs	235
Ramon/San Luis Rey North Side	Palm Springs	198
Ramon/San Luis Rey South Side	Palm Springs	194
5th/Vine	Coachella	190
Hwy 111/Flower	Indio	189
Ramon/Date Palm West Side	Cathedral City	167
Baristo/Farrell North Side	Palm Springs	126

Source: SunLine Transit Agency, March 2019–February 2020

Figure 1.12 Weekend Service: Top 10 Stops Served

Stop	City	Average Riders Per Day
5th/Vine	Coachella	358
Indian Canyon/Ramon	La Quinta	299
B St/Buddy Rodgers	Cathedral City	279
Palm Canyon/Stevens	Palm Springs	191
Hwy 111/Flower	Indio	171
Town Center/Hahn East Side	Palm Desert	163
West/Pierson	Desert Hot Springs	140
Palm Canyon/Baristo	Palm Springs	107
Town Center/Hahn West Side	Palm Desert	98
Ramon/San Luis Rey North Side	Palm Springs	93

Source: SunLine Transit Agency, March 2019–February 2020

consumers, and grassroots advocates through forums such as the Riverside County Transportation Commission (RCTC) Citizens Advisory Committee/Social Service Transportation Advisory Council, SunLine's ACCESS Advisory Committee, San Gorgonio Pass Area - Transportation Now Coalition, and neighboring transit operators.

SunLine facilitates the ACCESS Advisory Committee. Staff hosts regular meetings at the Thousand Palms Administrative Office. SunLine applies input from the Committee to improve relationships with the community to address public transportation issues in the Valley.

Additionally, staff members are actively involved in the regional transportation planning process through participation on RCTC and county committees. These committees include the RCTC Citizens Advisory Committee/Social Service Transportation Advisory Council, the Technical Advisory Committee, Aging & Disability Resource Connection (ADRC) of Riverside Long Term Services and Supports Coalition, Desert Valley Builders Association, and related committees to enhance coordination efforts with SunLine.

1.8.1 Coordination With Other Public Transportation Providers

In addition to providing transit service throughout the Coachella Valley, SunLine offers transit connections to a number of adjacent transit operators. SunLine, Omnitrans, and Metrolink collaborated to schedule the operation of 10 Commuter Link service, which connects Indio/Palm Desert to the California State University, San Bernardino campus and the San Bernardino Transit Center (SBTC)/Metrolink Station with a bus stop in Beaumont. In Beaumont, 10 Commuter Link provides connectivity to Riverside Transit Agency (RTA), Beaumont Transit, and Banning Transit. Transfers are available to bus routes connecting to Cabazon, University of California, Riverside, Riverside University Health Center, Kaiser Hospital, VA Hospital, Loma Linda Medical Center, and numerous destinations served by RTA, Beaumont Transit, and Banning Transit. Negotiations are underway to establish agreements between SunLine and RTA, Beaumont Transit, and Banning Transit.

SunLine also hosts Morongo Basin Transit Authority (MBTA) Routes 12 and 15 through a cooperative service agreement at its stops in downtown Palm Springs. The collaboration offers connections to Yucca Valley, Landers, Joshua Tree, and Twentynine Palms.

SunLine is collaborating with Palo Verde Valley Transit Agency on its Rides to Wellness demonstration project known as the Blythe Wellness

Express service. This service, launched in July 2017, operates 3 days per week and travels to the Coachella Valley's three hospitals (Desert Regional Medical Center, Eisenhower Medical Center, and John F. Kennedy Memorial Hospital) within SunLine's service area.

Amtrak California (operated by Amtrak bus contractors) transports rail passengers traveling between rail hubs at certain Amtrak stations and SunLine's bus stops in Palm Springs, Palm Desert, and La Quinta, under an additional cooperative service agreement. Amtrak's Sunset Limited inter-city train serves the Palm Springs Station on north Indian Canyon Drive. However, with rail service only serving Palm Springs three times a week in each direction, it is impractical for SunLine to offer transit service to the station at this time.

SunLine collaborates with the Imperial Valley Transportation Commission (IVTC) in an effort to find a future connection with Imperial Valley Transit (IVT). IVTC oversees the regional transportation services and programs provided by IVT in the Southern California areas of Brawley, Calexico, Imperial, West Shores, and El Centro.

In 2019, FlixBus initiated regional bus service at Palm Springs, Palm Desert, and Indio that connects to Los Angeles in the west and Phoenix, Arizona, in the east. SunLine maintains an interagency operating agreement with FlixBus.

1.9 Review of Previous Studies and Plans

In 2019, SunLine completed its Transit Redesign and Network Analysis Study. Prepared by HDR, this study took a comprehensive look at fixed route transit operations to make recommendations to optimize SunLine's service. SunLine also completed an on-board transit rider survey in 2019. This survey provided insight into rider preferences and needs to help guide the transit redesign. Other reports reviewed for the preparation of this SRTP include:

- Bus Rider Survey Study (February 2015)
- SunLine Transit Feasibility Study Hydrogen Station Expansion (January 2016)
- SunLine Transit Facilities Master Plan (November 2016)
- SunLine Transit Agency Transit Asset Management (September 2018)
- Network Study Report SunLine Transit Redesign & Network Analysis (February 2019)
- Innovative Clean Transit (ICT) Plan to SunLine Board of Directors (May 2020)

CHAPTER 2
Existing Service and Route Performance

SunLine developed its Refueled plan through a holistic process that reflected guidance from the Board of Directors, input received from riders, and a data-driven process that used existing transit market information such as stop- and route-level boarding data and origin-destination survey data. This SRTP includes updated key performance indicators (KPIs) that further support these quantitative, community-based planning methods.

2.1 Description of Key Performance Indicators

As part of its Refueled commitment, SunLine regularly reviews routes' service performance to adjust service supply to meet demand within its capacities. A quartile-based performance threshold is used to compare and measure the relative performance of individual routes. This tool allows SunLine to identify the top 25 percent and bottom 25 percent performing routes.

Passengers per revenue hour is the recommended KPI for evaluating SunLine's route-level service. It measures service effectiveness or productivity based on ridership (passenger boardings) generated for each revenue hour of service operated. SRTP Table 2 (see SRTP Tables) shows SunLine's system performance targets.

2.1.1 Service Quality Standards

Service quality standards contribute to the reliability and consistency of service delivery. Riders may first be attracted to transit service based on headway and span. Choice riders may continue to use services because they can reliably get to their destinations on time. Unreliable service often results in decreased ridership. Service quality standards are proposed to be measured using the following operational and passenger experience metrics:

- on-time performance (service reliability)
- percent service delivered (service reliability)
- miles between service interruption (service reliability)
- load standards (service comfort)
- average fleet age (service comfort)
- bus deployment policy

Each suggested metric is discussed in more detail below.

On-time Performance. This KPI measures service reliability as defined by adherence to the published service schedule. "On-time" is when a trip departs a time point within a range of 0 minutes early to 3 minutes late. To achieve targeted on-time performance, service running times must be calibrated regularly based on existing conditions. SunLine has a relatively uncongested operating environment, which helps support a high KPI for on-time performance. The on-time performance target is 90 percent for all services. This target helps show riders that 9 out of every 10 trips will arrive at the scheduled time.

Runtime variants also affect service speed and reliability. Runtime is the time allotted in a transit schedule for a route to travel from one time point to another time point, or from beginning to end. Calibrating the runtime for the day of the week and hour of the day (for example, peak vs. non-peak) helps routes and the overall system adhere to or surpass the adopted on-time performance. It is important to review runtime variants regularly because roadway traffic conditions are ever-changing.

Miles between Service Interruptions. This KPI measures service reliability as defined by revenue miles between service interruptions, regardless of cause. SunLine's standard is 5,000 miles.

Load Standards. This service quality KPI establishes load standards for various vehicle types and is measured for each trip operated. While it may be acceptable for some riders to stand on the bus for short distances or

time periods (for example, under 2 miles and/or 10 minutes) during peak periods, it is generally accepted that seating should be available for all riders during normal off-peak conditions. Figure 2.1 show load standards.

Figure 2.1 Load Standards

Service Period	Maximum Consistent Load Factor
Peak	Average over 133% of seated load = 50 passengers
Off-peak	Average 100% of seated load = 38 passengers

Average Fleet Age. The age of the vehicle fleet affects performance and reliability of transit services as well as system attractiveness to customers. SunLine's standard for average fleet age is no greater than 10 years. Adhering to the average fleet age standard will help ensure a reliable and comfortable passenger experience.

Bus Deployment Policy. Bus deployment specifies the type of vehicle that should be used to operate individual routes. The type of vehicle deployed on a route depends primarily on ridership demand and trip loads. Using incorrectly sized vehicles on routes can unnecessarily add operating cost to a route or result in overcrowding. Figure 2.2 shows the bus deployment policy.

Routes 111, 14, 30, and 15 should use 40-foot buses given the higher passenger volumes.

Other routes should use either 40- or 32-foot buses based on ridership demand.

Figure 2.2 Bus Deployment

Service Type	Vehicle Type
Trunk routes	40-foot buses
Local routes	32- or 40-foot buses depending on ridership demand
On-demand service	15-passenger van or sedan

SunLine will review the bus deployment policy every 2 years beginning in 2020, and will make necessary adjustments as the fleet is updated to ensure compliance with Title VI of the Civil Rights Act of 1964 requirements.

SunLine is in full compliance with Title VI, which protects people from discrimination based on race, color, and national origin in programs and activities receiving federal financial assistance. SunLine ensures equitable distribution of its assets in delivery of transit services to the people of Coachella Valley.

Buses are assigned according to successful completion of maintenance functions without regard to route assignment, or vehicle age, except in size considerations as outlined above. Additionally, fuel cell buses are assigned to routes with shorter distances and/or durations that are within the acceptable range capacity of those vehicles.

Adequate numbers of buses are assigned to routes with high demand to avoid instances of overcrowding or standing passenger. All SunLine buses are fully air conditioned and are 100 percent accessible to persons with disabilities.

2.1.2 Warrants Standards

Warrants standards provide a way to determine which areas within the large service area will have both the passenger demand and performance potential to produce cost-effective fixed route transit service. To ensure the agency's financial sustainability, SunLine will introduce only those new services that operate above the lower-performing route quartile or with productivity that is within 15 percent of the system average.

Planning new services around these guidelines will help ensure successful performance of new routes. Providing a set of guidelines for which areas warrant all-day fixed route service will help SunLine respond to future community requests for new service.

2.1.3 Network Role

New services should be evaluated for their place in the overall transit network. Each new route in the network will have a unique role, whether it is facilitating transfers with existing services, introducing service coverage to a recent development, or providing connections between current routes and major destinations. While successful new routes connect with existing services, they should not duplicate existing service or compete for passengers.

2.1.4 Market Opportunities

There is a strong correlation between service performance, surrounding population, and employment densities—the more people with access to a route, the higher the route's potential ridership. Population-dense areas tend to coincide with mixed-use neighborhoods, walkable environments, and higher populations of transit-friendly constituencies such as students, seniors, zero-vehicle households, and low-income populations.

The minimum population and employment density for the introduction of new all-day fixed route transit service is an average of 10 people/jobs per acre within a half mile of the proposed route.

A minimum threshold is considered supportive of fixed route service and should not be subjected to further analysis. Areas in this category that have unmet needs may be served by alternative options to fixed route service.

2.1.5 Unmet Mobility Needs

SunLine will strongly consider the mobility needs of transit-dependent populations when evaluating where to operate service. In assessing the area's demand for transit service, it is important to examine the presence of these demographic groups and identify any present unmet needs.

2.1.6 Key Destinations

Key destinations likely to generate higher demand for transit service include major area schools, colleges, universities, hospitals, retail/commercial/entertainment centers with more than 10 people/jobs per acre, open residential communities (not gated), and those with relatively lower income and vehicle ownership levels.

2.1.7 Evaluating New Services

New routes should be monitored to determine whether they are reaching the desired performance standards. The route should first be evaluated after 6 months to determine whether it meets more than two-thirds of its performance standards. New services not meeting the minimum standards at the end of an 18- to 24-month trial period are subject to corrective action or discontinuation.

In some cases, trial periods for new services may vary based on the requirements of grant funding. For example, if a grant provided 3 years of funding for a route that did not meet standards, this route may still be operated for the full 3-year period.

2.1.8 Productivity vs. Coverage Target

The SunLine Board of Directors' goal is to capture new riders and expand transit market share. The Board is committed to first investing in new operating plans that improve productivity, and second in operating plans that improve coverage. This is consistent with the Transportation Development Act of 1971 that established fiscal performance requirements of 20 percent of farebox recovery in urbanized areas and 10 percent in rural areas. To comply with this state mandate, and to improve effectiveness and efficiency, SunLine recommends the following policy for service deployment:

- Seventy percent of fixed route service should be deployed in areas with higher population and employment densities where transit is able to meet productivity standards
- Thirty percent of fixed route service should be deployed to maintain coverage in areas where lower population and employment densities limit transit service productivity.

SunLine will not dismantle its existing service to pay for productivity. Rather, funds for new service will be split 70/30 to establish productivity-oriented routes to expand the transit market share and capture new riders. This focus on productivity will also help SunLine meet mandatory farebox recovery requirements. By state mandate, new or significantly modified service is exempt from meeting the required criteria for up to 2 years plus the year of commencement. The objective is to give these routes time to perform up to the standards.

2.2 Service Performance

Beginning in August 2018, SunLine's Haul Pass program attracted new student riders to the system. Expanding the student travel market helped stabilize declines in transit ridership. At the same time, SunLine was able to reduce expenses and complete FY2020–2021 under budget. These savings put SunLine in a better financial position to weather the operational challenges and budget shortfalls resulting from the COVID-19 pandemic. For example, in the last quarter of the fiscal year, SunLine will see a significant decrease in passenger fare revenue as local fixed route and paratransit bus service are being provided free of charge.

SRTP Table 2.1 (see SRTP Tables) shows the Fiscal Year (FY) 2020–2021 SRTP performance report. It shows FY2018–2019 and FY2019–2020 system performance indicators with FY2020–2021 anticipated performance. It projects a decrease in passengers and an increase in

operating costs for FY2020–2021. SRTP Table 2.2 (see SRTP Tables) shows the SRTP system service summary broken out by fixed route and dial-a-ride service types. SRTP Table 2.3 (see SRTP Tables) shows route-level performance indicators.

Before the COVID-19 pandemic ridership drop, SunLine had been enjoying an increase in transit use. Figure 2.3 shows total SunLine system ridership, including both paratransit and fixed route bus service, for the 5 years from FY2014–2015 to FY2018–2019. Figure 2.4 shows that ridership increased in FY2018–2019 over the previous fiscal year. SunLine attributes this increase to the Haul Pass program attracting new student riders.

Figure 2.5 shows increases in local bus ridership in the fall and spring months, which corresponds to student demand.

Figure 2.6 shows the fixed bus route performance for FY2000–2021.

Where fixed route service increased between FY2017–2018 and FY2018–2019, paratransit service ridership levels remained steady. Figure 2.7 shows a small decrease in annual paratransit ridership between fiscal years. This small decline is good news as SunLine manages its paratransit service to

Figure 2.3 System Ridership Comparison - 5 years

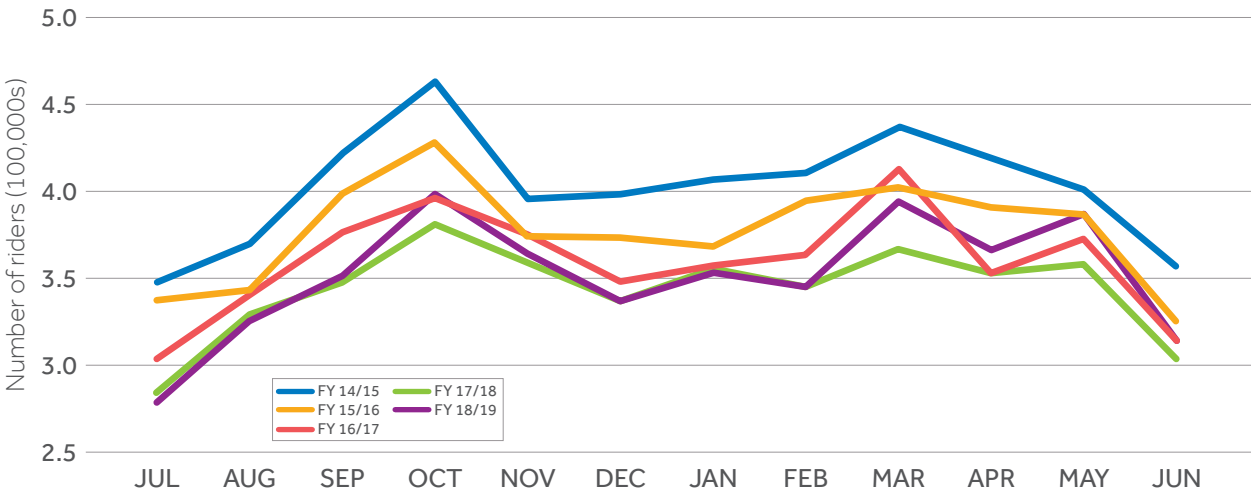


Figure 2.4 SunBus Ridership Change

Service Type	FY2017–2018	FY2018–2019	Percent Change
Sun Bus (Fixed Route)	3,947,023	4,039,450	2.3%

Figure 2.5 Fixed Route Ridership Comparison - 5 years

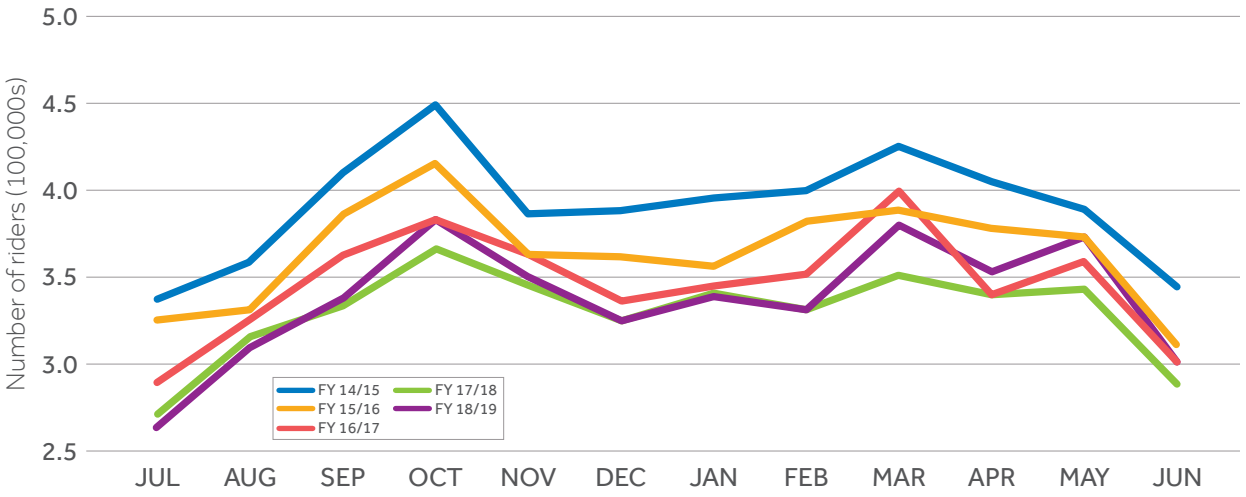


Figure 2.6 Fixed Route Performance, FY2020–2021

Route	Peak Vehicles	Annual Revenue Miles	Annual Revenue Hours	Gross Annual Operating Cost	Annual Passengers
10 Commuter Link	2	191,556	5,915	N/A	N/A
14	7	429,302	27,996	$4,195,171	580,984
15	1	87,484	5,448	$830,772	117,180
20	2	84,780	3,582	$851,447	31,587
21	1	18,391	1,334	$217,625	13,068
24	5	171,466	12,760	$1,489,422	176,322
30	5	267,281	25,674	$2,522,510	616,319
32	3	279,553	16,865	$2,562,878	250,298
54	2	113,483	6,733	$968,940	79,314
70	3	129,249	9,687	$1,240,395	163,252
80	5	105,020	9,061	$1,029,211	203,664
81	4	53,409	5,660	$585,221	88,736

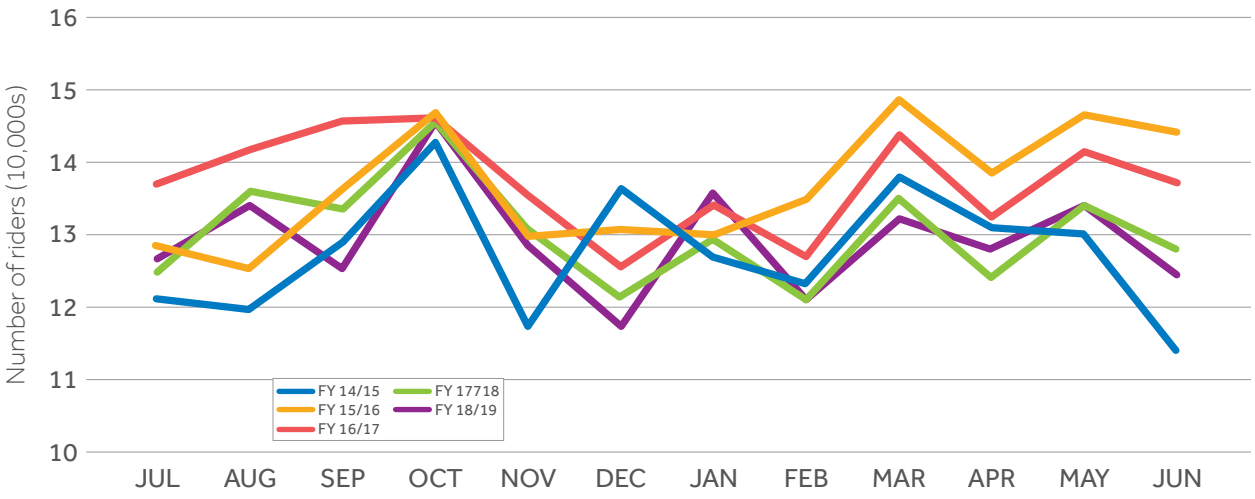
Figure 2.6 Fixed Route Performance, FY2020–2021 (continued)

Route	Peak Vehicles	Annual Revenue Miles	Annual Revenue Hours	Gross Annual Operating Cost	Annual Passengers
90	1	78,800	6,012	$669,911	72,872
91	3	315,323	17,279	$2,917,930	157,058
95	1	115,773	6,390	$1,076,640	28,840
111	14	1,006,510	67,814	$11,043,268	1,412,920
Total	**59**	**3,447,380**	**228,210**	**$32,201,341**	**3,992,414**

Figure 2.7 Paratransit System Performance, FY2018–2019

Service Type	FY2017-2018	FY2018-2019	Percent Change
SunDial	156,292	155,332	-0.6%

Figure 2.8 SunDial Ridership Comparison - 5 years



divert as many riders as possible to fixed route service as a way to control costs. Figure 2.8 (previous page) shows paratransit use for 5 recent fiscal years.

2.2.1 Taxi Voucher Program

In addition to SunDial, SunLine offers a Taxi Voucher Program providing half-price taxi trips for seniors (60+ years) and the disabled through the use of an electronic payment card. This card is easily obtained by eligible patrons by submitting an application to SunLine. Once the application is reviewed and accepted, the patron is then mailed an activated payment card. When the patron receives their card they are able to call in and add a balance of up to $75 per month. SunLine provides matching funds in equal amount up to the $75. The total balance added for each month can be a maximum of $150. Remaining funds from previous months are carried over until utilized. To use the balance, the patrons simply order a cab and pay their fare with the Taxi Voucher payment card.

This program is serviced by two taxi businesses permitted to operate in the Coachella Valley and provides some relief to the demands on the paratransit services. Both the riders and the taxi providers appreciate how this service keeps them competitive with other rideshare services in the area. It is anticipated that operational funding for the Taxi Voucher Program will be exhausted as of March 31, 2021.

2.2.2 Taxi Administration

The SRA is charged with licensing and regulating taxicab businesses and drivers in the Coachella Valley. Figure 2.9 presents the current operating taxi businesses in the Coachella Valley along with the number of vehicles operated by each company.

Figure 2.9 Taxi Businesses

Business	Number of Vehicles
Coachella Valley Taxi	20
Desert City Cab	36
Yellow Cab of the Desert	52

2.2.3 Vanpool

A vanpool is a group of people who are commuting to the same workplace or post-secondary education facility (college, trade school, etc.) regularly from the same community, riding together in a van or SUV provided by a vendor to share expenses. Vanpools typically carry from 5 to 15 passengers and operate long distances, traveling between pick-up locations and a place of work/school.

Vanpools provide small-scale commuter ridership in scenarios where operator costs would otherwise be prohibitively high. Operating costs are very low, because the passengers drive themselves. Ridership per platform hour is healthy. Vanpools are very demand-responsive; once ridership falls below a threshold, the service goes away and new routes can be added with a minimum of overhead. They can access office parking areas and other locations that scheduled SunLine service cannot reach, making for more convenient passenger drop-offs.

Vanpool programs can be administered in a variety of ways, allowing the employer to be fully involved or simply promote the service. Employers can help employees form vanpools through rideshare matching. Rideshare matching helps potential vanpoolers locate others nearby with similar schedules. With technology advancements, on-demand vanpooling may help reduce coordination costs and increase ridership. Traditional vanpool programs often have average ridership per trip at above the minimum membership required for the vanpool.

As the region develops unevenly, vanpools will be an increasingly effective means to serve trips from low-density places to employment and education centers. With vanpool programs, SunLine may be able to pull back bus service from low-volume coverage routes, and focus on more frequent trunk routes and core services.

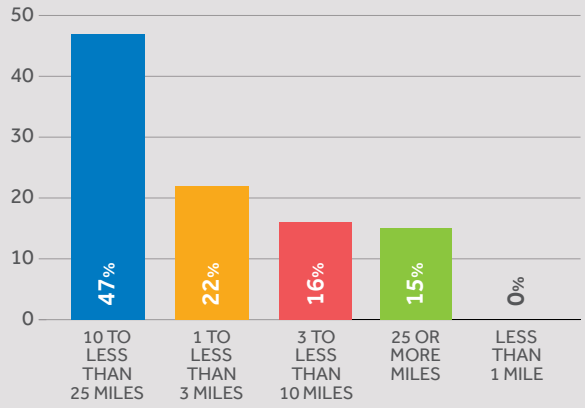
SunLine's Vanpool Program, SolVan, provides a subsidy for qualified vans that agree to report about daily riders, miles, hours, and expenses. A SolVan reporting system has been created to track each rider on each vanpool. The driver of the vanpool must be a participant in the vanpool program. Vanpool passengers will be responsible for paying the van monthly lease cost minus the subsidy. Lease includes insurance and maintenance. They will also share the cost of gas, toll fees, and parking fees (if applicable). Vehicles for this type of service will be leased by one of the pre-qualified vendors to one of the commuters in the group, a company, or a third-party representative.

Vanpools

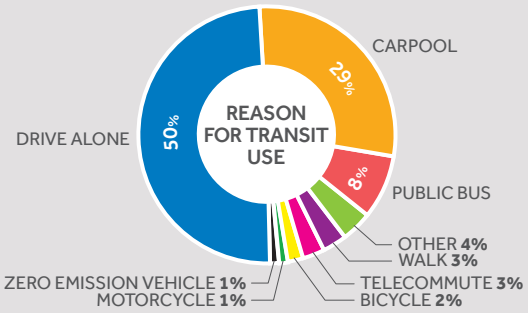
GOALS

- Gain new vanpool riders whose route travels through or ends in eastern Riverside County.
- Educate the employer and employees of eastern Riverside County of the SolVan program and how the program works.
- Continue to support SunLine as a leader in alternative transportation options, recognizing the agency for bringing a new commute option to eastern Riverside County.
- Continue to support current vanpool participants to ensure their satisfaction with the program to promote long-term program participation.
- Work alongside the regional rideshare program, IE Commuter, to mine employee data of carpoolers and interested carpoolers and drivers commuting long distances with regular work shifts for potential vanpool groups; to add incentives and outreach efforts; and to leverage large and small employers to create a green-thinking workspace as an employee benefit (see tables below).

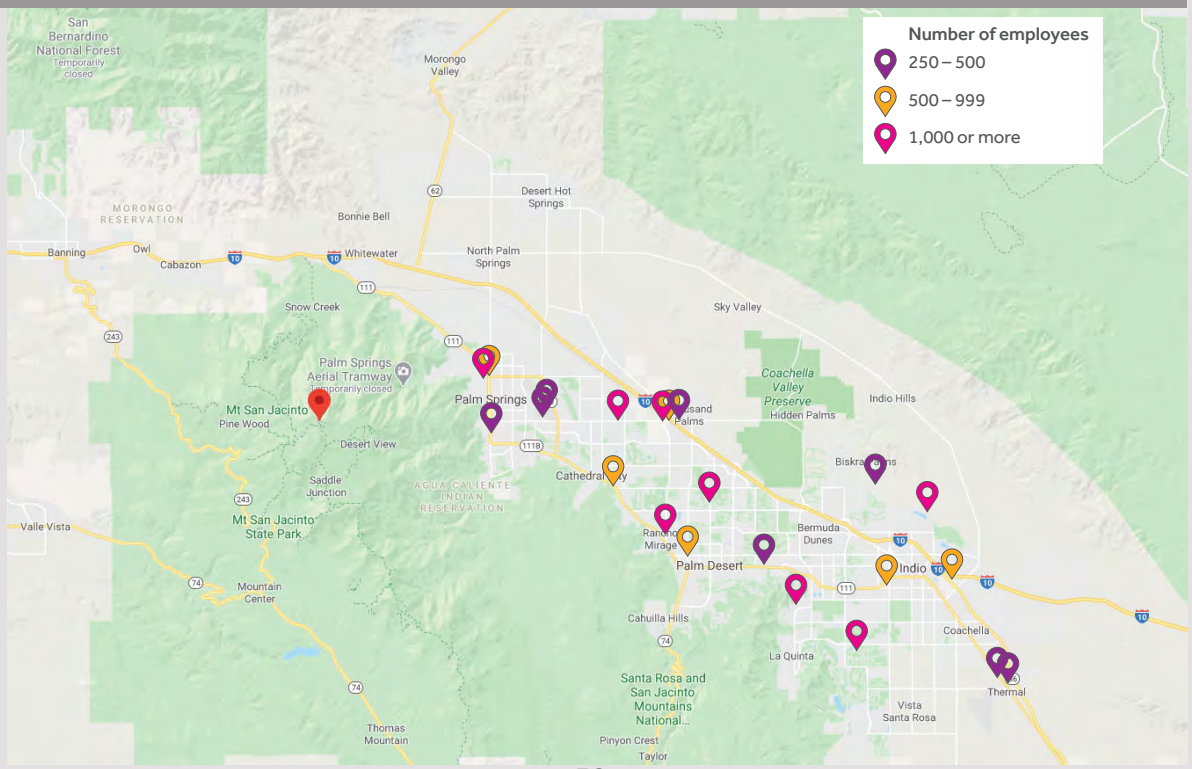
EMPLOYEE COMMUTE DISTANCES



MODE SPLIT



MAJOR EMPLOYERS



2.3 Productivity Improvement Efforts Underway

SunLine is constantly evaluating its routes to improve productivity. This includes key performance indicators such as farebox recovery and passengers per hour or trip. SunLine also continually evaluates its bus schedules and blocking to reduce deadhead miles and optimize layovers between trips.

For example, the new 10 Commuter Link is aimed at improving regional service between the Coachella Valley and the Inland Empire. For students, 10 Commuter Link will provide a direct connection between the California State University, San Bernardino – Palm Desert Campus and the main campus in San Bernardino. It will also provide a connection to the San Bernardino Downtown Metrolink Station.

The Route 111X weekday express service is intended to improve productivity on SunLine's highest ridership route. Stopping at five locations in the Highway 111 corridor, Route 111X will provide a 60-minute trip between Indio and Palm Springs.

SunLine is conducting a microtransit pilot project to connect riders to main route service by bridging the first mile, last mile gap. This flexible, on-demand rideshare service is designed to connect riders to the fixed route system by providing point-to-point rides along identified fixed route corridors. The pilot project, which started in January 2020, is evaluating the feasibility of using local taxis to expand SunLine's service area and reach non-traditional markets.

2.3.1 Haul Pass

The College of the Desert and the California State University, San Bernardino – Palm Desert Campus are important transit markets. Started in August 2018 with a grant from the LCTOP, the SunLine Haul Pass program gives students at these schools access to SunLine buses with their student ID. The LCTOP grant is funding an expansion of the program to other educational institutions, with the goal of all programs being self-sustaining.

2.3.2 Mobile Ticketing

The 2019 Transit Rider Survey showed that more than 80 percent of SunLine riders have access to a smartphone or tablet with an Internet connection. Access to a connected device is an important factor in the

implementation of the Token Transit mobile ticketing pilot. The pilot program will allow riders to use a new method of acquiring passes, and will give SunLine valuable information that will be used for a permanent mobile ticketing solution.

2.4 Major Trip Generators

The 2019 SunLine Transit Agency Rider Survey identified the main transit trip generators in the Coachella Valley. The top destinations for home-based work trips are Palm Springs, Palm Desert, and La Quinta. The College of the Desert and Palm Springs High School are top destinations for home-based other trips that include shopping, recreation, and education. Figure 2.10 and Figure 2.11show the traffic analysis zones with the top home-based work and home-based other trip attractions.

Figure 2.10 Home-based Work Trip Attractions

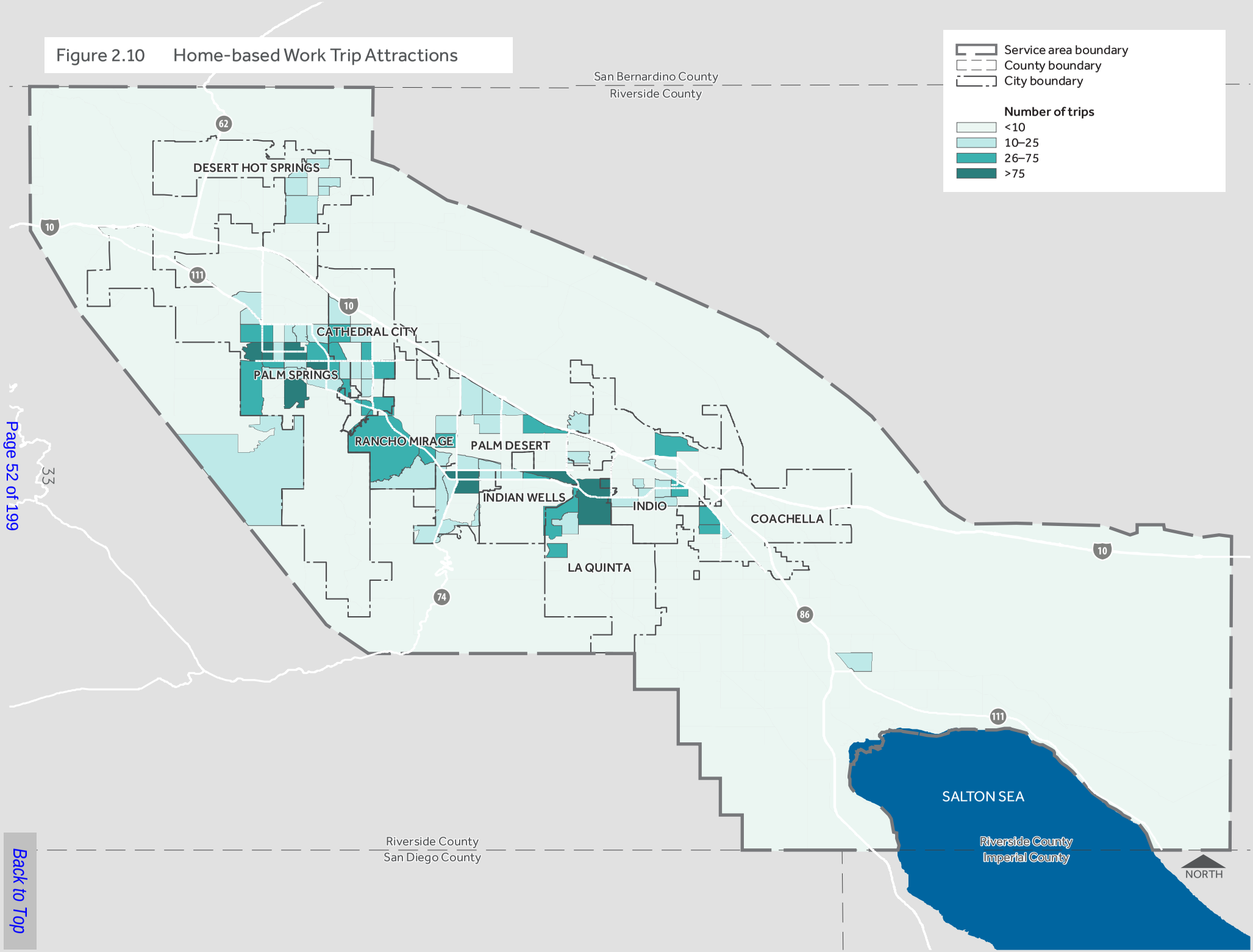


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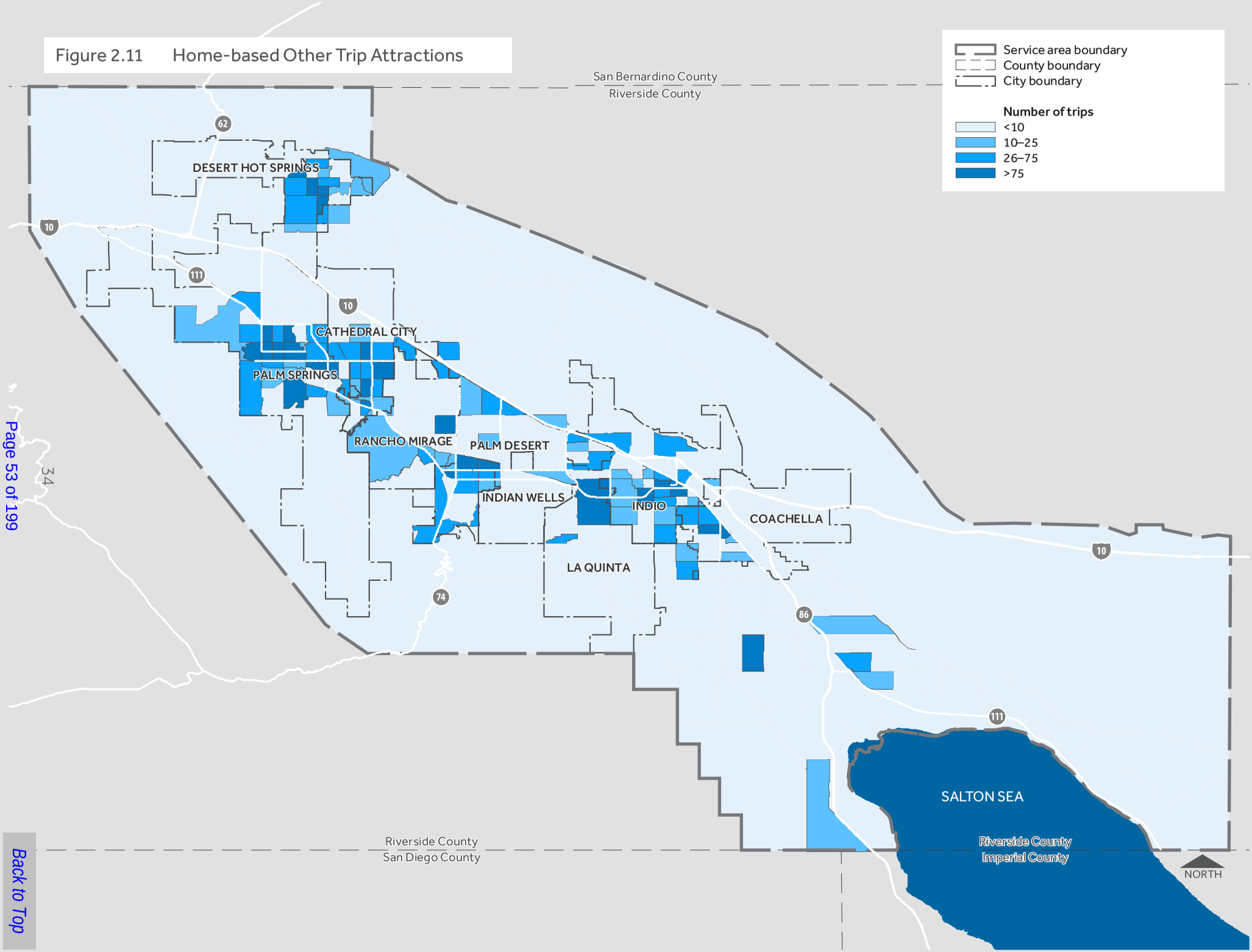
Figure 2.11 Home-based Other Trip Attractions



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CHAPTER 3
Future Service Plans, Fare Changes, Capital Planning, and Marketing

The adoption of these Refueled recommendations in principle will open the door for an outreach effort. SunLine will coordinate closely with its member cities, the Coachella Valley Association of Governments (CVAG), and RCTC. SunLine will use the input of the public and its planning partners to jointly develop and deliver a redesigned transit network.

Whether planning for long-term growth or addressing the immediate COVID-19 crisis, SunLine's Refueled system redesign is aimed at improving transit service to increase ridership. These recommendations include:

- Make SunLine's system faster, more direct, and more efficient to attract new riders;
- Streamline SunLine's route structure to focus resources on the system's most productive bus corridors;
- Research and develop a microtransit service model that can replace traditional fixed route bus service in sparsely populated and/or low-transit-demand areas;
- Simplify the fare structure and move to electronic media;
- Update the service standards policy to support performance-driven transit and an emerging service delivery model; and

» Develop the Route 111 High Quality Transit Corridor with transit signal priority (TSP), queue jumpers, and Super Stops to facilitate timed transfer connections and intermodal connectivity.

The Haul Pass program attracted new student riders to the SunLine system, helping to stabilize ridership. Long-term population projections show growth in Desert Hot Springs, Coachella, and Indio that will increase demand for transit. In the near term, however, SunLine's focus is on rebuilding ridership lost during the COVID-19 pandemic.

Potential funding for expanding SunLine's fleet may be available through the Greenhouse Gas Reduction Fund. The Transit and Intercity Rail Capital Program (TIRCP) supports funding for transformative capital improvements that will modernize California's bus transit systems. Because elements of Refueled will reduce greenhouse gas emissions, vehicle miles traveled, and traffic congestion, the TIRCP is an important potential source for Refueled capital funding needs.

Through its Innovative Clean Transit (ICT) regulation, the California Air Resources Board (CARB) has mandated that public transit agencies transition to zero-emission buses (ZEBs) by 2040. SunLine is ahead of many of its peers in meeting the ZEB targets. However, fleet planning for the Refueled service expansion will be included in the ZEB implementation plan. The ZEB implementation plan (Appendix C) shows how SunLine intends to comply with the mandate and when it plans to purchase the buses and build the necessary support infrastructure.

The ZEB rollout plan will include a comprehensive operational and financial analysis of the impacts on SunLine's delivery model for transit services. It will also identify potential limits on the operating range for ZEBs between recharging/refueling, analysis of financial incentives, and capital cost of support facilities. The rollout plan will also identify staff training needs for operations and maintenance.

This SRTP, combined with the ZEB implementation plans, can tell the TIRCP and other funding partners a powerful story about SunLine's commitment to exceptional transit service and clean energy.

This chapter outlines service changes planned in FY2021–2023 to begin implementing the Refueled program. It also presents steps toward the longer-term vision, including fare policy, marketing, and infrastructure needs.

3.1 Planned Service Changes FY2021-2023

The financially unconstrained Refueled plan is not funded. It recommends both restructuring SunLine's bus routes and improving frequency over the long term. The long-range improvements will require support infrastructure, additional fleet, and funding for operations.

SunLine has three funded service changes planned for FY2021–2023. However, the implementation of these changes depends on the transit ridership and recovery from the COVID-19 pandemic.

- SunRide Microtransit (January 2020)
- 10 Commuter Link Service between Indio and San Bernardino
- Route 111X weekday express service between Indio and Palm Springs

3.1.1 Route 111X

Faster and more frequent service are top priorities for SunLine customers. Partially funded by a Congestion Mitigation and Air Quality (CMAQ) grant, Route 111X would reduce travel time between Indio and Palm Springs by 24 minutes. Travel time would be reduced by skipping stops and using a more direct route on Fred Waring Drive. Route 111X will use the existing SunLine fleet branded for the express service. The route will have specially branded bus stops that may also include enhanced shelters and upgraded amenities.

3.1.2 SunRide Microtransit

With SunLine's fixed route ridership down more than 70 percent from the COVID-19 pandemic, some bus routes may be discontinued because of low productivity. As part of its recovery plan, SunLine is evaluating microtransit as a stopgap measure to provide lifeline service. As transit demand and recovery allow, SunLine may consider deploying microtransit to improve access to fixed route bus service. As part of its recovery plan, SunLine may replace low productivity corridors and parallel paratransit service with a microtransit solution for cost efficiency.

3.2 Future Marketing Plans, Studies, and Promotions

Response and recovery from the COVID-19 pandemic will be an immediate focus of SunLine's plans. SunLine will develop plans and communication tools to reassure its riders and encourage them to use public transit again. SunLine will highlight how the Refueled improvements will provide faster,

more frequent service to help restore ridership. Sunline's overall marketing and communication strategy will be focused on *Refueled – Driving the Future of Transit*.

Refueled provides an exciting opportunity for SunLine to engage with passengers and reinvigorate our community. SunLine will highlight how the Refueled improvements will provide faster, more frequent service to help restore ridership. SunLine will welcome established riders back into a system that has maintained enhanced cleaning procedures and will proudly introduce the community to a more efficient transit network. Education is a fundamental component of the Refueled communication plan and will focus on ensuring riders understand the connection between the type of vehicles used and the service provided to them on the road. As such, informing the community on California's zero-emission fleet goals will play a part in the overall marketing strategy.

SunLine's campaign will use a variety of media, as discussed in the following sections.

Social Media and Website

SunLine is active on social media, using it as part of a comprehensive marketing strategy. SunLine maintains Facebook, Twitter, Instagram, Snapchat, and YouTube pages, and posts alerts and items of interest. During this COVID-19 pandemic, it is particularly important for SunLine to maximize its use of relatively low-cost and/or partnership-leveraged marketing tools. Digital media, both organic and paid, will be the hallmark of SunLine's marketing efforts.

SunLine will use its website as an ongoing passenger information tool. The website is used to publish up-to-date information about SunLine services, policies, and publications.

Passenger Transit Information/Rider's Guide

Information on SunLine services and programs is easily obtainable and prominently displayed at transit centers, in buses, and at pass outlets. The SunLine Rider's Guide provides directions, maps, time point bus stop locations, schedules, fares, transfer information, and where to get assistance on how to use SunLine services and programs. SunLine's transit information is provided in both English and Spanish. SunLine has a deep commitment to sustainability, and in the past year started encouraging riders to seek route and service information digitally whenever possible. In a continued effort to support the mission set by the Board of Directors in

the 1990s, SunLine has decreased printing by 33 percent and focused on improving digital access.

Customer Service Center

The Customer Service Center provides telephone information to customers Monday through Friday. Bilingual (English/Spanish) customer service agents use resources such as Google Transit trip planner and MyStop Bus Tracker to respond to customer inquiries.

Community Outreach

SunLine works with local organizations, businesses, government agencies, and nonprofit organizations to promote SunLine programs and services. Community outreach involves grassroots organizations to identify unmet transit needs and build community-based marketing partnerships. Historically, SunLine invests in these relationships by participating in community events such as mobility workshops, food drives, fundraisers, parades, and special event activities. During this COVID-19 pandemic, SunLine has developed a new plan to connect with members of the community via virtual outreach efforts to capture different audiences. Such efforts provide SunLine the opportunity to promote transportation services and programs to existing riders and attract potential future riders. Outreach for Refueled will be especially important to educate community stakeholders on the enhancements to their transit experience.

Public Presentations

Target audiences include seniors, students, social services, businesses, and community leaders. The main goal is public education related to the economic and environmental benefits of using public transportation. During presentations, SunLine highlights the key role that we hold as a public transit provider and leader in alternative fuel technology. SunLine's use of hydrogen electric fuel cell and battery electric fuel cell buses have made impacts to the environment on a global scale. Presentations emphasize why this is important and how it affects residents of the Coachella Valley. These presentations typically occur at senior centers, colleges, and school orientation programs. In response to COVID-19, many presentations will be virtual, in partnership with host organizations.

Travel Training

Transportation provides us with a sense of independence and opportunities to engage within our community. Sunline's Travel Training Program offers opportunities for riders to learn how to independently traverse a public transit system. To this end, SunLine offers group and

one-on-one training aboard a fixed route bus to build confidence and allow people to travel with ease.

Transit Ambassador Program

The SunLine Transit Ambassador Program, known as TAP, empowers employees to expand SunLine's culture of customer service. TAP consists of a series of training sessions that address crucial topics and everyday scenarios in public transportation service. A Transit Ambassador has completed this program and can assist passengers with their trip planning. Transit Ambassadors will assist the rider until the rider feels confident in navigating the SunLine system independently.

Access Advisory Committee

The Access Advisory Committee, which meets bi-monthly, was formed in 1995 as an advocacy group consisting of various agencies in the Coachella Valley. Committee members range from community activists to everyday transit users who are committed to promoting successful implementation of the transportation provisions of the ADA and other related federal legislation or regulations.

3.3 Projected Ridership Growth FY2021-2023

Following a significant downturn in ridership in March 2020 related to the COVID-19 pandemic, SunLine expects it may take several years for ridership to rebound. SunLine and its planning partners are using the regional travel demand model to prepare long-term ridership forecasts for the unconstrained transit redesign.

3.4 Proposed Fare Structure Changes

While the Board of Directors has directed SunLine staff to explore a fare-free system, the aim of this fare policy is to increase SunLine's revenues with a simplified structure that continues to provide support for low-income individuals. The key fare structure recommendations are summarized below.

Increase base cash fare 75 percent in three increments. SunLine has the lowest base cash fare among its peers. While SunLine operates its service efficiently, SunLine has the lowest average fare, lowest fare revenue per passenger mile, and lowest farebox recovery rate of its peers. Improving its farebox recovery rate would give SunLine a dedicated funding source as it builds for the future, reducing the need for state and federal grants to grow its system.

Charge adults and youth the same fare. Combining adult and youth fares would simplify SunLine's fare structure by reducing the number of fare types. Children age 6 years and younger may ride free.

Eliminate the transfer fee. Research indicates that most transit agencies are eliminating transfer fees. With SunLine's redesigned network, many passengers would continue to require a transfer between routes to reach their destination. Rather than require a transfer fee, paper transfer tickets would be issued to allow riders the ability to use a second bus. The transfer ticket would be good for 2 hours.

Develop a post-secondary school universal pass (U-Pass). Through an agreement negotiated with the schools, SunLine would prorate the price of the U-Pass over the entire student body based on an estimate of the total fare revenue that would be generated by individual users purchasing a monthly pass. This would allow SunLine to maintain expected revenues while allowing students to pay a lower fare price, thereby helping to attract students who might not choose transit otherwise. This negotiated U-Pass would eventually replace SunLine's current Haul Pass program, which is funded by a grant.

Escalate SunDial paratransit fares. As SunLine incrementally increases its base cash fare, it would also increase its SunDial paratransit fare. The fare for an ADA paratransit user cannot be more than twice the fixed route base cash fare.

Figure 3.1 shows the 5-year incremental fare increase program.

Figure 3.1 SunLine Incremental Fare Increase Program

Fare Category	Current Fares	Phase 1	Phase 2	Phase 3	Percent Change[1] (%)
General					
Cash	$1.00	$1.25	$1.50	$1.75	75
Seniors/Disabled					
Cash	$0.50	$0.60	$0.75	$0.85	70
Youth					
Cash	$0.85	Consolidate adult and youth Eliminate employer pass Eliminate transfer fee			

[1]*Phase 3 compared to current fares.*

Review fares annually. Fares should be reviewed annually to assess the ridership impact. This should include an examination of revenue by fare category and fare media. The fare review should provide a peer comparison to help ensure fare policy decisions are well-informed.

Make fare adjustments as frequently as possible. Fares should be adjusted annually to address inflation and to deliver a more gradual change to riders. Fares that are frozen for several years and then adjusted through a large disproportionate increase result in a "shock" to riders that may negatively affect the agency image and ridership.

Calculate the SunLine internal rate of inflation to establish required fare adjustments. Fare increases should be based on SunLine's internal rate of inflation (goods, labor, and fuel), rather than the inflation of a general Consumer Price Index. The Consumer Price Index measures the inflation on a basket of goods and services unrelated to transit service and competing transportation modes

To help low-income passengers access transit services and offset fare increases, SunLine may target fares for Coachella Valley residents who meet low-income guidelines. The U.S. Department of Labor's Lower Living Standard Income Level is often used by transit agencies to determine eligibility for reduced fares. It identifies income levels by family size that are adjusted annually based on changes in the Consumer Price Index.

3.5 Capital Improvement Planning

Refueled implementation is closely tied to CARB's ICT regulation. The ICT regulation requires SunLine to gradually transition to a 100 percent ZEB fleet. As SunLine grows its fleet to provide additional service, it will need to evaluate daily mileage needs and the incremental capital or electricity costs of depot-charging electric buses that cannot be offset by available incentive and funding programs.

SunLine is also planning for the new infrastructure needed to support hydrogen production and refueling for its fuel cell buses. It is also evaluating expansion of its satellite facility in Indio to support hydrogen and ZEB fueling and maintenance.

SunLine is working with CVAG to plan and fund street improvements needed to preserve bus travel times and improve service reliability. These street improvements include TSP measures, queue jumpers, and dedicated bus lanes. Super stops are another capital improvement aimed

at enhancing the passenger experience. These stops include enlarged and near-level boarding areas, enhanced shelters, and upgraded amenities.

SunLine is also working with its member cities to improve multimodal connections to its fixed route bus service. This includes connections to the Coachella Valley Link. This bicycling and walking pathway will link Coachella Valley cities and the lands of three federally recognized tribes with a path that generally parallels Highway 111.

Figure 3.2 shows the status of SunLine's capital projects.

Figure 3.2 Status of SunLine's Capital Projects

Project Name	Project Status
Replacement and expansion of support vehicles	Support vehicles have been delivered and are being prepped with make-ready equipment. Project is expected to be closed by end of May 2020, and remaining funds will be used for the next round of vehicle purchases.
CNG fueling station and construction	CNG station construction is in progress, which includes installing the fuel island canopy and CNG equipment, placing dispensers and vacuums, and constructing the station building. Construction is expected to be complete by end of June 2020.
Solar carports (Administration Building Phase II)	Solar carport installation has been completed. Project team is working with the utility provider and the general contractor on interconnection to the existing meter. Project is estimated to be complete by June 2020.
Operations facility	Construction mobilization and site ground work has been completed. The ground excavation and civil work is in progress.
Five hydrogen electric hybrid fuel cell buses and hydrogen station (Air Quality Improvement Program Grant)	Buses are in service and the temporary hydrogen dispenser is operational; commissioning of the hydrogen station and permanent dispensers is in progress.
Center of Excellence Facility (ZEB maintenance facility)	In process of executing contract with the design firm to complete the 100% design drawings.
Service upgrade 3G to 4G	On-site installation is complete. Project is expected to be closed out by end of May 2020.

Figure 3.2 Status of SunLine's Capital Projects (continued)

Project Name	Project Status
Information technology (IT) projects	Project is in progress, replacing 20 percent of the IT equipment. Project expected to be closed by end of 2020.
Five hydrogen fuel cell buses (LowNo Grant)	Buses are in service and remaining funds will be used to procure additional fuel cell bus. Contract for the new bus is expected to go for Board approval in May 2020.
Replacement of two commuter buses	Buses are expected to be delivered by end of May 2020.
Transportation demand management (Vanpool)	Program is running; contract term with the service provider has been extended until September 2022.
Indio facility improvements	Contract with the general contractor has been executed. The contractor has begun the work, which includes a new training room, office space, and breakroom at the Indio location.
Hydrogen station program improvements	Project funds are in process of being reallocated to the public hydrogen station.
Storage area network expansion for Tyler Enterprise Resource Planning, Host8 - Host12	Equipment has been received and project is expected to be closed by October 2020.
Parts department and warehouse relocation	Purchase orders have been issued to procure items for the parts warehouse.
2020 replacement and expansion of paratransit buses	Purchase order has been issued and vehicles are in production and expected to be delivered in third quarter of 2020.
Replacement of six fixed route buses	Buses have been delivered and are being prepped for going into service.
Asphalt slurry seal	Bids were due on April 30; in process of contract execution.
CNG project trailer demolition	Finalizing the project scope and expected to go out for bids in mid-May 2020.
Transmission	Project has been completed. Working on the close-out documentation.
Retention beautification Phase II	Phase I has been completed, project in progress.
Fall arrest system installation for maintenance bays	Project is out for bids.
Purchase of two expansion support vehicles	Vehicles have been delivered; in process of closing out the project.

Figure 3.2 Status of SunLine's Capital Projects (continued)

Project Name	Project Status
Maintenance shop wall removal	Project scope is being finalized and bids are expected to go out in May 2020.
Floor resurfacing, Maintenance Building Div. 1	Project initiation and scope has been finalized; bids will go out in line with wall removal project.
Asset management tool	In process of procuring a consultant firm to assist with the project.
Fixed route bus rehabilitation	Project has not started.
Replacement of non-revenue support vehicles	Project has not started.
Transit enhancements	Project has not started.
IT projects	Project has not started.
Radio system replacement	Working on finalizing the project scope.
Roof repair Div. I and Div. II	Funds have been used.
Two bus simulators	In process of finalizing the scope. Proceeding with one simulator. Remaining funds to be programed toward IT needs for the operations facility.
Replacement of six fixed route buses	Project has not started.
Boardroom equipment upgrade	Finalizing the scope; project expected to begin by end of May 2020.
SunLine property expansion/solar farm Phase I	In process of finalizing the purchase and sales agreement.
Facility maintenance and improvements	Capital purchase requests.
H2 Ride	Not proceeding with the project.
New flier Air Quality Improvement Program	Project has not started.
Heavy-duty tow truck	In the process of reallocating as match to public hydrogen station.

3.6 SunLine Refueled – Long-term Vision

This financially unconstrained transit redesign plan provides a long-term vision for SunLine to enhance its transit service. The redesign plan consolidates SunLine's existing 15 routes into 9 routes and adds microtransit service. This plan is essential to effectively communicate SunLine's operating and capital needs to local, state, and federal funding agencies. The plan enables SunLine to collaborate with local jurisdictions, CVAG, RCTC, and other funding and planning agencies to include them in long-term regional planning and implementation efforts to optimize scarce financial resources and develop and deliver projects jointly.

Appendix B shows the SunLine Refueled route profiles and implementation options. The following is a summary of proposed route modifications:

Route 111X. Skip stop express service to reduce travel times between Indio and Palm Springs.

Route 111. Improved service on the existing route.

Route 2. Combine existing Routes 14 and 30 between Desert Hot Springs and Cathedral City.

Route 3. Extend and rename existing Route 15 to connect 4th Street/ Cholla Drive in Desert Hot Springs to Langlois Road/Aurora Road.

Route 4. Combine and rename existing Routes 24 and 32 to connect Palm Springs with Palm Desert Town Center Mall.

Route 5. Combine existing Route 20 and Route 21, which would operate between Desert Hot Springs and Palm Desert Town Center Mall.

Route 6. Extend existing Route 54 to 5th Street in Coachella to create the new Route 6 as part of a simplified service in Indio and Coachella.

Route 7. Existing Route 70 would be maintained in the redesigned transit system as Route 7.

Route 8. Combine portions of existing Routes 80, 81, 90, and 91 in Indio, Coachella, Thermal, and Mecca to improve operational efficiency and route directness and to make SunLine's system easier to navigate.

Route 9. A new fixed route, Route 9, would provide bus service between North Shore, Mecca, and 100 Palms.

10 Commuter Link. Weekday express bus service between Indio and San Bernardino.

Microtransit service. As part of its COVID-19 recovery plan, SunLine is evaluating microtransit as a stopgap measure to provide lifeline service. As transit demand and recovery allow, SunLine may consider deploying microtransit to improve access to fixed route bus service. SunLine may use lower-cost microtransit service to eventually replace fixed route bus service on the new Route 9. Operating as a circulator or as on-demand service, microtransit would connect riders to SunLine's fixed route bus service. Microtransit may also be used in Indio and in the southern end of Cathedral City and Palm Desert to expand the ridership catchment area.

Figure 3.3 shows SunLine's redesigned fixed bus route system.

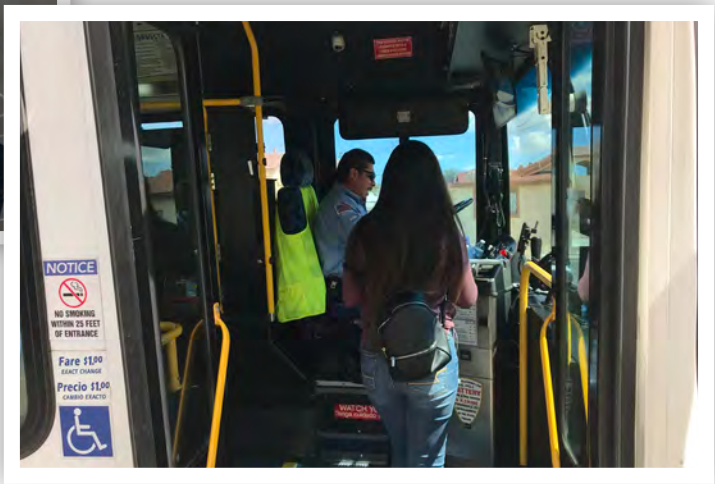
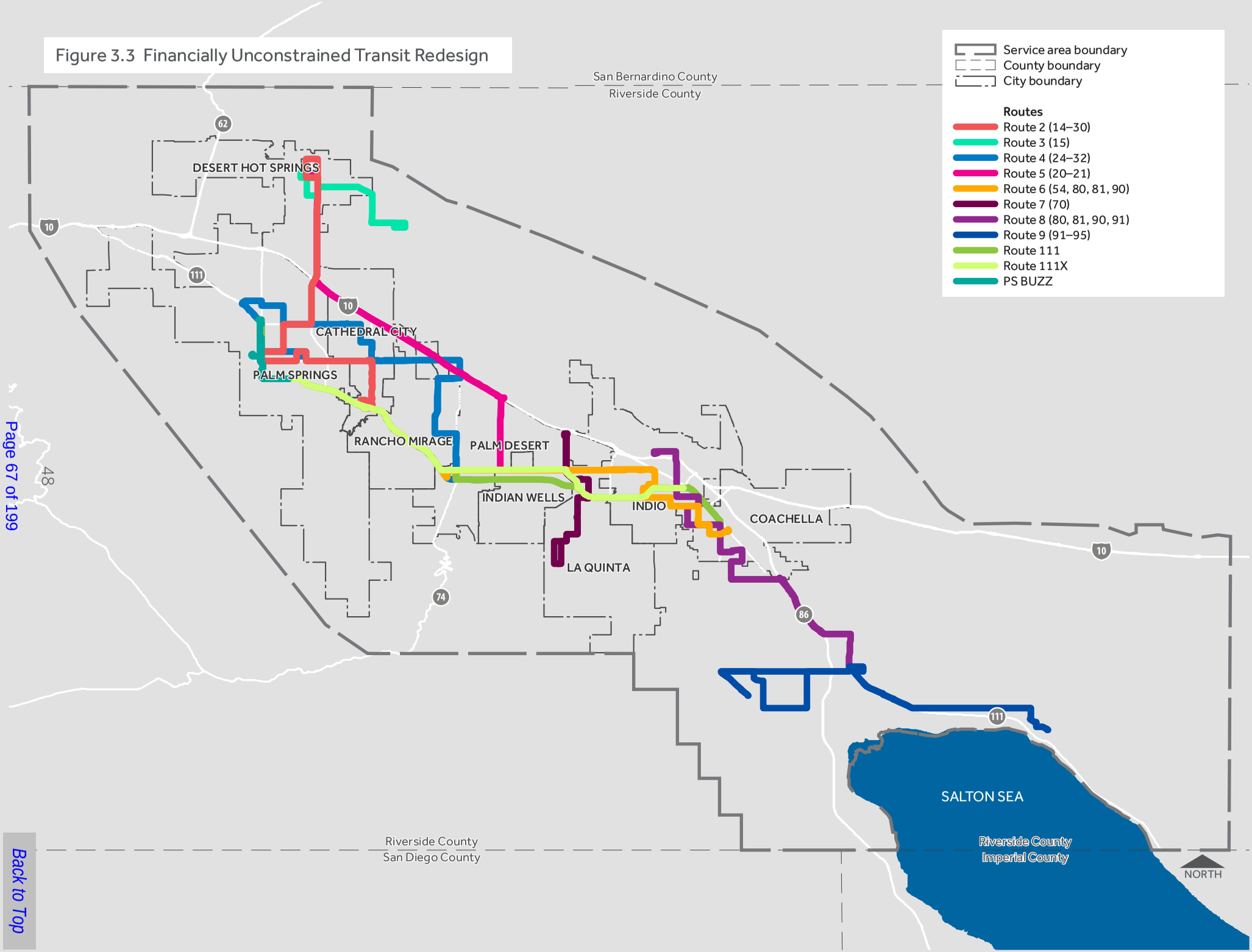


Figure 3.3 Financially Unconstrained Transit Redesign



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CHAPTER 4
Financial Planning

The FY2021 financial planning process focused on prioritizing resources and aligning with the core strategic goals of the Refueled initiative. As mentioned before, in the midst of planning the FY2021–2023 SRTP, the COVID-19 pandemic of 2020 caused a major national and global disruption. The executive team members at SunLine brought their diverse insights to effectively allocate resources to maintain essential services. The following SunLine financial plan is based on the best available financial projections and anticipated grants.

4.1 Operating and Capital Budget

In FY2021, SunLine will have an operating budget of $40,840,150 and a capital budget of $6,298,206. The operating budget encompasses such costs as driver salaries, administrative salaries, fuel, insurance premiums, and other overhead costs required for day-to-day operations. The available funding will be used effectively and efficiently to accomplish organizational objectives. The operating budget will ensure that SunLine continues to offer safe and reliable transportation to Coachella Valley residents.

The capital budget incorporates key projects to help further advance SunLine's Capital Improvement Program. The Capital Improvement Program for FY2021 focuses on continuing SunLine's investment in increasing its alternative fuel technology fleet and building energy-efficient

infrastructure similar to a first-of-its-kind solar microgrid. SunLine's Capital Improvement Program represents a unique opportunity to make long-term investments in SunLine's operational capabilities, energy strategies, and regulatory compliance by conforming to CARB's ICT mandate.

Key components of the capital plan, beyond ongoing maintenance needs, include:

- light-duty public hydrogen station
- solar microgrid
- facility infrastructure improvements
- vehicle replacement and expansion

The capital program depends on internal and external funding from federal, state, regional, and local sources.

4.2 Funding Plans to Support Proposed Operating and Capital Program

For FY2021, funding plans for the proposed operating and capital programs are as follows:

Funding sources for the proposed operating budget include FTA Section 5307 (Urban), FTA Section 5307 (CARES Act), FTA Section 5310 (Elderly and Disabled), FTA Section 5311 (Rural), FTA Section 5311 (f) (Intercity), FTA Section 5312 (Public Transportation Innovation), CMAQ, LCTOP funds apportioned by the California Department of Transportation, State Local Transportation Funds (LTF), Local Measure A funding, farebox revenue, and other revenue for operating assistance.

Funding sources for capital projects include funds from FTA Section 5307, FTA Section 5310, FTA Section 5339, CMAQ, LCTOP, LTF, State Transit Assistance (STA), and State of Good Repair Funds (SGR).

Figure 4.1 shows the estimated FY2021 operating and capital budget of $47,138,356.

Figure 4.2 and Figure 4.3, respectively, show the FY2022–2023 operating and capital expenditure funding projections.

Figure 4.1 Operating and Capital Costs - FY2021

Fund	Operating		Capital	
	Amount ($)	Percent (%)	Amount ($)	Percent (%)
CARES Act 5307	13,208,971	32.3	–	–
CARES Act 5311	300,000	0.7	–	–
CARES Act 5311(f)	53,889	0.1	–	–
Carryover CMAQ	662,366	1.6	–	–
Carryover LTF	–	–	–	–
Carryover Section 5307	–	–	–	–
Carryover STA	–	–	–	–
CMAQ	–	–	465,991	7.4
Farebox Revenue	1,399,824	3.4	–	
LCTOP	–	–	1,038,101	16.5
LCTOP Carryover	337,000	0.8	–	–
LTF	11,000,000	26.9	–	–
Measure A	5,955,883	14.6	–	–
Other Revenue	2,421,878	5.9	–	–
Section 5307 Indio/Cathedral City	4,968,507	12.2	–	–
Section 5307 Indio/Cathedral City/Palm Springs	–	–	607,400	9.6
Section 5310	29,627	0.1	183,320	2.9
Section 5311	303,219	0.7	–	–
Section 5311 (f)	161,666	0.4	–	–
Section 5312	37,320	0.1	–	–
Section 5339	–	–	255,000	4.0
SGR	–	–	779,796	12.4
STA	–	–	2,968,598	47.1
Total	$40,840,150	100%	$6,298,206	100%

Figure 4.2 Operating and Capital Costs - FY2022

Fund	Operating		Capital	
	Amount ($)	Percent (%)	Amount ($)	Percent (%)
Cares Act 5307	2,160,147	5.1	–	–
Carryover 5307	4,962,864	11.7	3,048,769	10.2
CMAQ	958,000	2.2	–	–
Farebox Revenue	3,000,000	7.0	–	–
LTF	19,064,303	44.8	–	–
Measure A	9,037,987	21.2	–	–
Other Revenue	2,882,861	6.8	20,702,567	69.5
Section 5307	–	–	–	–
Section 5311	303,219	0.7	–	–
Section 5311 (f)	215,555	0.5	–	–
Section 5339	–	–	2,551,231	8.6
SGR	–	–	17,871	0.1
STA	–	–	3,479,129	11.7
Total	**$42,584,936**	**100%**	**$29,799,567**	**100%**

In FY2022 SunLine estimates operating and capital budgets of $42,584,936 and $29,799,567, respectively. The operating budget will include grant funded services such as the Vanpool Program, SunRide, and Route 111X. The capital budget will continue to build on the FY2021 budget and increase alternative fuel technology and fleet and building energy efficient infrastructures. SunLine has applied for discretionary grants to help fund the capital program such as the Environmental Protection Agency's Targeted Airshed Grant Program. If successful, funding will be programmed in FY2022.

Figure 4.3 Operating and Capital Costs - FY2023

Fund	Operating		Capital	
	Amount ($)	Percent (%)	Amount ($)	Percent (%)
CMAQ	792,009	1.9	–	–
Farebox Revenue	3,000,000	7.1	–	–
LTF	21,181,250	49.9	–	–
Measure A	9,037,987	21.3	–	–
Other Revenue	2,962,861	7.0	–	–
Section 5311	303,219	0.7	–	–
Section 5307	4,962,864	11.7	1,600,000	37.6
Section 5311 (f)	215,555	0.5	–	–
Section 5339	–	–	1,600,000	37.6
STA	–	–	1,050,000	24.7
Total	$42,455,745	100%	$4,250,000	100%

In FY2023, SunLine estimates operating and capital budgets of $42,455,745 and $4,250,000, respectively. The operating budget will include grant funded services such as the Vanpool Program, SunRide, and Route 111X. The capital budget will focus on facility infrastructures and facility improvement projects. SunLine will use formula funding and continue to actively seek discretionary grant funding.

4.3 Regulatory and Compliance Requirements

Americans with Disability Act

SunLine complies with ADA guidelines by providing a 100 percent accessible revenue service fleet for fixed route transit services and ADA paratransit vehicles. As funding becomes available, SunLine continues to provide bus stop improvements to ensure accessibility. Staff also coordinates with developers and contractors regarding construction projects to include bus stop improvements when the opportunity arises.

Disadvantaged Business Enterprise

SunLine's most recent Disadvantaged Business Enterprise (DBE) program and goal were submitted to FTA in July 2018 and had an expiration date of September 2021. The next DBE report will be submitted in May 2020.

Equal Employment Opportunity

SunLine complies with federal regulations pertaining to employment and submits its Equal Employment Opportunity (EEO)-1 report annually to the U.S. Equal Employment Opportunity Commission (EEOC) and its EEO/Affirmative Action Program to FTA every 4 years, or as major changes occur in the workforce or employment conditions. The most recent EEO-1 report was submitted to the EEOC and certified in March 2019. The most recent EEO/Affirmative Action Program was revised and submitted to FTA in FY2015–2016. We will be sending the FY2016/FY2019 EEO/Affirmative Action Program to FTA in September 2020

Title VI

Title VI protects people from discrimination based on race, color, and national origin in programs and activities receiving federal financial assistance. SunLine's Title VI report was submitted to FTA in November 2019 and has an expiration date of November 2022.

Transportation Development Act

The Transportation Development Act provides two major sources of funding for public transportation: the LTF and STA. RCTC commissioned Pacific Management Consulting to conduct the Triennial Performance Audit as required by the Transportation Development Act; SunLine's findings are referenced in Table 6 of that document.

Federal Transit Administration Triennial Audit

In accordance with regulations, SunLine completed an FTA Triennial Audit site visit in 2019. The Triennial Audit focused on SunLine's compliance in 21 areas. SunLine had no deficiencies with the FTA requirements.

National Transit Database

To keep track of the industry and provide public information and statistics as growth occurs, FTA's National Transit Database records the financial, operating, and asset conditions of transit systems. Staff are currently finalizing FY2016–2017 National Transit Database Section sampling. SunLine continues to perform parallel sampling using manual samples and Automatic Passenger Counter data to verify and gain approval to use Automatic Passenger Counter data in future reporting.

Alternative Fuel Vehicles

In alignment with SunLine's Board-approved Alternative Fuel Policy, all vehicles in the fleet use CNG, electric, or hydrogen fuel. The current active fleet consists of 54 CNG buses, 15 hydrogen electric fuel cell buses, 4 battery electric buses, 1 diesel coach, 39 CNG paratransit vehicles, and 46 non-revenue CNG and electric vehicles, including general support cars, trucks, and facility-specific golf carts and forklifts.

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SRTP Tables

Table 1.0 Individual Route Descriptions

Routes	Route Classification	Major Destinations	Cities/Communities Served	Connections
14	Trunk	Shopping, Schools, DMV, Employment Center, Library, Senior Center	Desert Hot Springs and Palm Springs	15, 20, 24, 30, 32, 111, 111X & PS BUZZ
15	Local	Shopping Centers, Senior Center, Library, Community Center, City Hall, Medical, and Schools	Desert Hot Springs and Desert Edge	14 & 20
20	Local	Shopping, Senior Center, Library, Community Center, Schools	Desert Hot Springs and Palm Desert	14, 15, 21, 32, 54, 111, 111X, 10 Commuter & Amtrak
21	Local	Shopping, Medical, Library, City Hall, School, College, and Mall	Palm Desert	20, 32, 54, 111, 111X, 10 Commuter & Amtrak
24	Local	Shopping, Medical, Library, Social Services, Theaters	Palm Springs	14, 30, 32, 111, PS BUZZ & MBTA
30	Trunk	Shopping, Schools, Medical, Library, Senior Center, Airport, Court House, Social Security, Theaters, and Public Social Services	Palm Springs and Cathedral City	14, 24, 32, 111, 111X, PS BUZZ & MBTA
32	Local	Shopping, School, College, Medical, Theaters, Mall and Hospital	Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Thousand Palms	14, 20, 21, 24, 30, 54, 111, 111X & Amtrak
PS BUZZ	Local	Hotels, Shopping and Entertainment	Palm Springs	14, 24, 30, 111X & 111
54	Local	Shopping, School, Tennis Gardens, Work Force Development, and College	Palm Desert, Indian Wells, La Quinta, Indio, Bermuda Dunes	20, 21, 32, 70, 80, 81, 91, 111, 111X, 10 Commuter & Amtrak
70	Local	Shopping, Schools, Theaters, Tennis Gardens and Medical	La Quinta, Palm Desert, Indian Wells, Bermuda Dunes	54, 111 & 111X
80	Local	Shopping, School, Workforce Development, Social Services, Senior Center, DMV, and Hospital	Indio	54, 81, 91, 111, 10 Commuter & 111X
81	Local	Shopping, Schools, Medical, Community Center, College, DMV, Hospital, Work Force Development, Social Services and Employment Center	Indio	54, 80, 91, 111, 111X, 10 Commuter & Greyhound
90	Local	Shopping , Library, City Hall, Senior Center, Community Center, Social Services and Medical	Indio and Coachella	80, 91, 95, 111 & 111X
91	Local	Shopping, College, Schools, Community Center, Center of Employment Training and Medical	Indio, Coachella, Thermal, Mecca, Oasis	54, 80, 81, 90, 95, 111, 10 Commuter & 111X
95	Local	Shopping, College, Community Center, Medical and Schools	Coachella, Thermal, Mecca and North Shore	90, 91, 111 & 111X
111	Trunk	Hospital, Medical, Shopping, College, Mall, Center of Employment Training and Schools	Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio and Coachella	14, 20, 21, 24, 30, 32, 54, 70, 80, 81, 90, 91, 95, PS BUZZ, 111X, 10 Commuter, Amtrak & MBTA
111-X	Express	Hospital, Medical, Shopping, College, Mall, Center of Employment Training and Schools	Palm Springs, Cathedral City, Palm Desert, La Quinta, Indio and Coachella	14, 20, 21, 30, 32, PS BUZZ, 54, 70, 80, 81, 90, 91, 95, 111, 10 Commuter, Amtrak & MBTA
10	Regional	Shopping, Business, Entertainment and University	Indio, Palm Desert, Beaumont, San Bernardino	20, 21, 54, 80, 81, 91, 111, 111X, OmniTrans, MARTA, VVTA, Beaumont Transit, RTA, SB Metrolink

RIVERSIDE COUNTY TRANSPORTATION COMMISSION

Table 1.1 - Fleet Inventory

FY 2020/21 Short Range Transit Plan

SunLine Transit Agency

Bus (Motorbus) / Directly Operated

Year Built	Mfg. Code	Model Code	Seating Capacity	Lift and Ramp Equipped	Vehicle Length	Fuel Type Code	# of Active Vehicles FY 2019/20	# of Contingency Vehicles FY 2019/20	Life to Date Vehicle Miles Prior Year End FY 2018/19	Life to Date Vehicle Miles through March FY 2019/20	Average Lifetime Miles Per Active Vehicle As Of Year-To-Date (e.g., March) FY 2019/20
2014		TR30FP	24	5	32		5	0	28,769	72,500	14,500
2018	BYD	K9	35	4	40		4	0	39,618	102,001	25,500
2012	EDN	AXCESS	37	1	40	OR	1	0	177,596	182,166	182,166
2014	EDN	AXCESS	37	3	40	OR	3	0	361,743	392,493	130,831
2017	EDN	AXCESS	37	1	40		1	0	20,126	38,331	38,331
2018	EDN	AXCESS	37	5	40	OR	5	0	113,700	201,553	40,310
2009	EDN	EZRider32'	29	10	32	CN	10	0	3,589,949	3,907,847	390,784
2008	NFA	LF 40'	39	20	40	CN	16	4	11,912,917	12,823,011	801,438
2008	NFA	LF 40'	39	21	40	CN	21	0	12,452,557	13,486,720	642,224
2016	NFA	LF 40'	39	6	40	CN	6	0	941,795	1,198,535	199,755
2018	NFA	XCELSIOR	39	5	40		5	0	28,769	117,466	23,493
2005	OBI	ORION V40'	44	4	40	CN	1	3	3,073,972	2,048,479	2,048,479
		Totals:	436	85			78	7	32,741,511	34,571,102	443,219

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RIVERSIDE COUNTY TRANSPORTATION COMMISSION

Table 1.1 - Fleet Inventory

FY 2020/21 Short Range Transit Plan

SunLine Transit Agency

Demand Response / Directly Operated

Year Built	Mfg. Code	Model Code	Seating Capacity	Lift and Ramp Equipped	Vehicle Length	Fuel Type Code	# of Active Vehicles FY 2019/20	# of Contingency Vehicles FY 2019/20	Life to Date Vehicle Miles Prior Year End FY 2018/19	Life to Date Vehicle Miles through March FY 2019/20	Average Lifetime Miles Per Active Vehicle As Of Year-To-Date (e.g., March) FY 2019/20
2013	EDN	AEROTECH	12	2	22	CN	2	0	502,190	504,909	252,454
2015	EDN	AEROTECH	12	8	22	CN	8	0	1,230,362	1,387,173	173,396
2016	EDN	AEROTECH	12	15	22	CN	15	0	1,617,381	2,042,420	136,161
2018	SPC	Senator	12	14	23		14	0		524,817	37,486
		Totals:	48	39			39	0	3,349,933	4,459,319	114,342

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RIVERSIDE COUNTY TRANSPORTATION COMMISSION

Table 2.0 -- Service Provider Performance Targets Report

FY 2019/20 Short Range Transit Plan Review
SunLine Transit Agency

Data Elements	FY 2019/20 Plan	FY 2019/20 Target	FY 2019/20 Year to Date Through 3rd Quarter	Year to Date Performance Scorecard
Unlinked Passenger Trips	4,329,667			
Passenger Miles	36,983,241			
Total Actual Vehicle Revenue Hours	315,136.0			
Total Actual Vehicle Revenue Miles	4,616,188.0			
Total Actual Vehicle Miles	5,311,625.0			
Total Operating Expenses	$40,840,138			
Total Passenger Fare Revenue	$7,610,947			
Net Operating Expenses	$33,229,191			
Performance Indicators				
Mandatory:				
1. Farebox Recovery Ratio	18.63%	>= 19.74%	20.51%	Meets Target
Discretionary:				
1. Operating Cost Per Revenue Hour	$129.60	<= $79.38	$121.03	Fails to Meet Target
2. Subsidy Per Passenger	$7.67	>= $4.98 and <= $6.74	$7.07	Better Than Target
3. Subsidy Per Passenger Mile	$0.90	>= $0.56 and <= $0.76	$0.88	Better Than Target
4. Subsidy Per Hour	$105.44	>= $55.01 and <= $74.43	$96.21	Better Than Target
5. Subsidy Per Mile	$7.20	>= $4.50 and <= $6.08	$6.35	Better Than Target
6. Passengers Per Revenue Hour	13.74	>= 9.35 and <= 12.65	13.61	Better Than Target
7. Passengers Per Revenue Mile	0.94	>= 0.77 and <= 1.04	0.90	Meets Target

Note: Must meet at least 4 out of 7 Discretionary Performance Indicators

Productivity Performance Summary:

Service Provider Comments:

RIVERSIDE COUNTY TRANSPORTATION COMMISSION

FY 2020/21 - Table 2.1 -- SRTP Performance Report

Service Provider: SunLine Transit Agency

All Routes

Performance Indicators	FY 2018/19 End of Year Actual	FY 2019/20 3rd Quarter Year-to-Date	FY 2020/21 Plan	FY 2020/21 Target	Plan Performance Scorecard (a)
Passengers	4,217,807	3,049,243	3,908,259	None	
Passenger Miles	36,122,234	24,372,196	30,751,958	None	
Revenue Hours	299,653.2	224,032.2	304,858.0	None	
Total Hours	324,795.0	243,623.0	337,179.0	None	
Revenue Miles	4,647,046.6	3,391,780.3	4,540,208.0	None	
Total Miles	5,271,012.0	3,873,122.0	5,277,383.0	None	
Operating Costs	$33,375,694	$27,114,692	$40,660,244	None	
Passenger Revenue	$5,276,226	$5,560,653	$7,777,170	None	
Measure-A Revenue				None	
LCTOP Revenue				None	
Operating Subsidy	$28,099,467	$21,554,039	$32,883,074	None	
Operating Costs Per Revenue Hour	$111.38	$121.03	$133.37	<= $123.43	Fails to Meet Target
Operating Cost Per Revenue Mile	$7.18	$7.99	$8.96	None	
Operating Costs Per Passenger	$7.91	$8.89	$10.40	None	
Farebox Recovery Ratio	15.81%	20.51%	19.12%	>= 0.2	Meets Target
Subsidy Per Passenger	$6.66	$7.07	$8.41	>= $7.73 and <= $10.45	Meets Target
Subsidy Per Passenger Mile	$0.78	$0.88	$1.07	>= $0.96 and <= $1.30	Meets Target
Subsidy Per Revenue Hour	$93.77	$96.21	$107.86	>= $90.81 and <= $122.85	Meets Target
Subsidy Per Revenue Mile	$6.05	$6.35	$7.24	>= $5.99 and <= $8.11	Meets Target
Passengers Per Revenue Hour	14.08	13.61	12.82	>= 9.99 and <= 13.51	Meets Target
Passengers Per Revenue Mile	0.91	0.90	0.86	>= 0.66 and <= 0.90	Meets Target

a) The Plan Performance Scorecard column is the result of comparing the FY 2020/21 Plan to the FY 2020/21 Primary Target.

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RIVERSIDE COUNTY TRANSPORTATION COMMISSION

Table 2.2 -- SunLine-BUS -- SRTP Service Summary

FY 2020/21 Short Range Transit Plan

All Routes

	FY 2017/18 Audited	FY 2018/19 Audited	FY 2019/20 Plan	FY 2019/20 3rd Qtr Actual	FY 2020/21 Plan
Fleet Characteristics					
Peak-Hour Fleet	17	17	68	17	65
Financial Data					
Total Operating Expenses	$26,650,357	$27,505,466	$34,281,108	$22,485,257	$34,123,115
Total Passenger Fare Revenue	$6,023,187	$4,729,613	$6,357,301	$4,994,576	$6,541,914
Net Operating Expenses (Subsidies)	$20,627,171	$22,775,853	$27,923,807	$17,490,681	$27,581,201
Operating Characteristics					
Unlinked Passenger Trips	3,947,023	4,039,450	4,174,079	2,927,100	3,761,953
Passenger Miles	38,247,959	32,850,476	35,145,747	22,480,631	29,230,376
Total Actual Vehicle Revenue Hours (a)	231,780.4	228,131.2	249,076.0	173,204.1	238,372.0
Total Actual Vehicle Revenue Miles (b)	3,402,691.1	3,364,996.5	3,647,585.0	2,534,502.8	3,543,495.0
Total Actual Vehicle Miles	3,808,756.1	3,778,101.0	4,131,848.0	2,856,047.5	4,017,717.0
Performance Characteristics					
Operating Cost per Revenue Hour	$114.98	$120.57	$137.63	$129.82	$143.15
Farebox Recovery Ratio	22.60%	17.20%	18.54%	22.21%	19.17%
Subsidy per Passenger	$5.23	$5.64	$6.69	$5.98	$7.33
Subsidy per Passenger Mile	$0.54	$0.69	$0.79	$0.78	$0.94
Subsidy per Revenue Hour (a)	$88.99	$99.84	$112.11	$100.98	$115.71
Subsidy per Revenue Mile (b)	$6.06	$6.77	$7.66	$6.90	$7.78
Passenger per Revenue Hour (a)	17.0	17.7	16.8	16.9	15.8
Passenger per Revenue Mile (b)	1.16	1.20	1.14	1.15	1.06

(a) Train Hours for Rail Modes. (b) Car Miles for Rail Modes.

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RIVERSIDE COUNTY TRANSPORTATION COMMISSION

Table 2.2 -- SunLine-DAR -- SRTP Service Summary

FY 2020/21 Short Range Transit Plan

All Routes

	FY 2017/18 Audited	FY 2018/19 Audited	FY 2019/20 Plan	FY 2019/20 3rd Qtr Actual	FY 2020/21 Plan
Fleet Characteristics					
Peak-Hour Fleet	1	1	30	1	30
Financial Data					
Total Operating Expenses	$5,827,953	$5,870,228	$6,559,030	$4,629,435	$6,537,129
Total Passenger Fare Revenue	$690,467	$546,613	$1,253,646	$566,077	$1,235,256
Net Operating Expenses (Subsidies)	$5,137,485	$5,323,614	$5,305,384	$4,063,358	$5,301,873
Operating Characteristics					
Unlinked Passenger Trips	156,292	155,332	155,588	110,010	146,306
Passenger Miles	1,801,489	1,691,066	1,837,494	1,201,768	1,521,582
Total Actual Vehicle Revenue Hours (a)	66,850.9	65,911.0	66,060.0	48,235.1	66,486.0
Total Actual Vehicle Revenue Miles (b)	989,084.1	971,701.1	968,603.0	720,156.0	996,713.0
Total Actual Vehicle Miles	1,183,816.9	1,182,562.0	1,179,777.0	879,953.0	1,259,666.0
Performance Characteristics					
Operating Cost per Revenue Hour	$87.18	$89.06	$99.29	$95.98	$98.32
Farebox Recovery Ratio	11.85%	9.31%	19.11%	12.23%	18.89%
Subsidy per Passenger	$32.87	$34.27	$34.10	$36.94	$36.24
Subsidy per Passenger Mile	$2.85	$3.15	$2.89	$3.38	$3.48
Subsidy per Revenue Hour (a)	$76.85	$80.77	$80.31	$84.24	$79.74
Subsidy per Revenue Mile (b)	$5.19	$5.48	$5.48	$5.64	$5.32
Passenger per Revenue Hour (a)	2.3	2.4	2.4	2.3	2.2
Passenger per Revenue Mile (b)	0.16	0.16	0.16	0.15	0.15

(a) Train Hours for Rail Modes. (b) Car Miles for Rail Modes.

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RIVERSIDE COUNTY TRANSPORTATION COMMISSION

Table 2.2 -- SunLine Transit Agency -- SRTP Service Summary

FY 2020/21 Short Range Transit Plan

All Routes

	FY 2017/18 Audited	FY 2018/19 Audited	FY 2019/20 Plan	FY 2019/20 3rd Qtr Actual	FY 2020/21 Plan
Fleet Characteristics					
Peak-Hour Fleet	26	26	98	24	95
Financial Data					
Total Operating Expenses	$32,478,310	$33,375,694	$40,840,138	$27,114,692	$40,660,244
Total Passenger Fare Revenue	$6,713,654	$5,276,226	$7,610,947	$5,560,653	$7,777,170
Net Operating Expenses (Subsidies)	$25,764,656	$28,099,467	$33,229,191	$21,554,039	$32,883,074
Operating Characteristics					
Unlinked Passenger Trips	4,122,539	4,217,807	4,329,667	3,049,243	3,908,259
Passenger Miles	41,488,246	36,122,234	36,983,241	24,372,196	30,751,958
Total Actual Vehicle Revenue Hours (a)	303,326.4	299,653.2	315,136.0	224,032.2	304,858.0
Total Actual Vehicle Revenue Miles (b)	4,679,725.3	4,647,046.6	4,616,188.0	3,391,780.3	4,540,208.0
Total Actual Vehicle Miles	5,280,523.1	5,271,012.0	5,311,625.0	3,873,122.0	5,277,383.0
Performance Characteristics					
Operating Cost per Revenue Hour	$107.07	$111.38	$129.60	$121.03	$133.37
Farebox Recovery Ratio	20.67%	15.81%	18.63%	20.51%	19.12%
Subsidy per Passenger	$6.25	$6.66	$7.67	$7.07	$8.41
Subsidy per Passenger Mile	$0.62	$0.78	$0.90	$0.88	$1.07
Subsidy per Revenue Hour (a)	$84.94	$93.77	$105.44	$96.21	$107.86
Subsidy per Revenue Mile (b)	$5.51	$6.05	$7.20	$6.35	$7.24
Passenger per Revenue Hour (a)	13.6	14.1	13.7	13.6	12.8
Passenger per Revenue Mile (b)	0.88	0.91	0.94	0.90	0.86

(a) Train Hours for Rail Modes. (b) Car Miles for Rail Modes.

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RIVERSIDE COUNTY TRANSPORTATION COMMISSION

Table 2.3 - SRTP Route Statistics

SunLine Transit Agency -- 8

FY 2020/21

All Routes

Data Elements

Route #	Day Type	Peak Vehicles	Passengers	Passenger Miles	Revenue Hours	Total Hours	Revenue Miles	Total Miles	Operating Cost	Passenger Revenue	Measure-A Revenue	LCTOP Revenue
SUN-10 CL	All Days	2	35,678	277,218	5,567	6,222	187,626	210,092	$1,793,752	$307,449		
SUN-111	All Days	14	1,298,136	10,086,517	68,895	73,943	1,001,443	1,145,465	$9,779,909	$1,955,982		
SUN-111X	All Days	3	32,037	248,927	4,215	4,634	82,308	110,001	$939,181	$187,836		
SUN-14	All Days	7	539,984	4,195,676	28,405	30,324	428,952	490,135	$4,184,742	$777,848		
SUN-15	All Days	1	107,026	831,592	5,455	5,782	87,409	97,355	$831,211	$161,028		
SUN-20	All Days	2	28,271	219,666	3,636	4,215	85,208	102,497	$875,115	$165,277		
SUN-21	All Days	2	11,861	92,160	1,313	1,550	18,332	23,865	$23,857	$4,752		
SUN-24	All Days	4	160,441	1,246,627	13,092	14,555	143,805	174,819	$1,492,596	$298,519		
SUN-30	All Days	5	564,323	4,384,790	25,291	26,982	267,589	303,794	$2,593,770	$518,754		
SUN-32	All Days	3	231,894	1,801,816	16,742	17,731	279,264	300,604	$2,566,537	$504,405		
SUN-40	All Days	3	46,340	360,062	4,569	4,914	46,448	56,257	$480,323	$96,065		
SUN-54	All Days	2	67,557	524,918	6,758	6,791	113,914	114,016	$973,458	$194,692		
SUN-70	All Days	3	136,001	1,056,728	9,957	10,462	131,523	145,236	$1,240,017	$248,003		
SUN-80	All Days	5	198,505	1,542,384	9,243	9,850	106,827	119,809	$1,022,924	$204,585		
SUN-81	All Days	4	74,859	581,654	5,766	6,251	55,174	68,539	$585,179	$113,930		
SUN-90	All Days	1	64,501	501,173	6,013	6,242	78,555	84,145	$718,427	$143,685		
SUN-91	All Days	3	140,443	1,091,242	17,193	18,154	315,172	345,961	$2,953,792	$493,277		
SUN-95	All Days	1	24,096	187,226	6,262	6,717	113,946	125,127	$1,068,325	$165,827		
SUN-DAR	All Days	30	146,306	1,521,582	66,486	81,860	996,713	1,259,666	$6,537,129	$1,235,256		
		95	3,908,259	30,751,958	304,858	337,179	4,540,208	5,277,383	$40,660,244	$7,777,170		

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RIVERSIDE COUNTY TRANSPORTATION COMMISSION

Table 2.3 - SRTP Route Statistics

SunLine Transit Agency -- 8

FY 2020/21

All Routes

Performance Indicators

Route #	Day Type	Net Subsidy	Operating Cost Per Revenue Mile	Operating Cost Per Revenue Mile	Cost Per Passenger	Farebox Recovery Ratio	Subsidy Per Passenger	Subsidy Per Passenger Mile	Subsidy Per Revenue Hour	Subsidy Per Revenue Mile	Passengers Per Hour	Passengers Per Mile
SUN-10 CL	All Days	$1,486,303	$322.21	$9.56	$50.28	17.13%	$41.66	$5.36	$266.98	$7.92	6.41	0.19
SUN-111	All Days	$7,823,927	$141.95	$9.77	$7.53	20.00%	$6.03	$0.78	$113.56	$7.81	18.84	1.30
SUN-111X	All Days	$751,345	$222.82	$11.41	$29.32	19.99%	$23.45	$3.02	$178.26	$9.13	7.60	0.39
SUN-14	All Days	$3,406,894	$147.32	$9.76	$7.75	18.58%	$6.31	$0.81	$119.94	$7.94	19.01	1.26
SUN-15	All Days	$670,183	$152.38	$9.51	$7.77	19.37%	$6.26	$0.81	$122.86	$7.67	19.62	1.22
SUN-20	All Days	$709,838	$240.68	$10.27	$30.95	18.88%	$25.11	$3.23	$195.22	$8.33	7.78	0.33
SUN-21	All Days	$19,105	$18.17	$1.30	$2.01	19.91%	$1.61	$0.21	$14.55	$1.04	9.03	0.65
SUN-24	All Days	$1,194,077	$114.01	$10.38	$9.30	19.99%	$7.44	$0.96	$91.21	$8.30	12.25	1.12
SUN-30	All Days	$2,075,016	$102.56	$9.69	$4.60	20.00%	$3.68	$0.47	$82.05	$7.75	22.31	2.11
SUN-32	All Days	$2,062,132	$153.30	$9.19	$11.07	19.65%	$8.89	$1.14	$123.17	$7.38	13.85	0.83
SUN-40	All Days	$384,258	$105.13	$10.34	$10.37	20.00%	$8.29	$1.07	$84.10	$8.27	10.14	1.00
SUN-54	All Days	$778,766	$144.05	$8.55	$14.41	20.00%	$11.53	$1.48	$115.24	$6.84	10.00	0.59
SUN-70	All Days	$992,014	$124.54	$9.43	$9.12	19.99%	$7.29	$0.94	$99.63	$7.54	13.66	1.03
SUN-80	All Days	$818,339	$110.67	$9.58	$5.15	20.00%	$4.12	$0.53	$88.54	$7.66	21.48	1.86
SUN-81	All Days	$471,249	$101.49	$10.61	$7.82	19.46%	$6.30	$0.81	$81.73	$8.54	12.98	1.36
SUN-90	All Days	$574,742	$119.48	$9.15	$11.14	19.99%	$8.91	$1.15	$95.58	$7.32	10.73	0.82
SUN-91	All Days	$2,460,515	$171.80	$9.37	$21.03	16.69%	$17.52	$2.25	$143.11	$7.81	8.17	0.45
SUN-95	All Days	$902,498	$170.60	$9.38	$44.34	15.52%	$37.45	$4.82	$144.12	$7.92	3.85	0.21
SUN-DAR	All Days	$5,301,873	$98.32	$6.56	$44.68	18.89%	$36.24	$3.48	$79.74	$5.32	2.20	0.15
		$32,883,074	$133.37	$8.96	$10.40	19.12%	$8.41	$1.07	$107.86	$7.24	12.82	0.86

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Table3.0 FY2020–2021

Table Highlights

1. Implement Refueled recommendations. Streamline the transit network as proposed in the Refueled: FY2021-2023 SRTP to provide faster, easier-to-understand, and more convenient service to attract new riders. The implementation recommendations will be presented to the public for their review and input. Then the implementation plan will be presented to the Board of Directors for its consideration.
2. Use microtransit solutions to provide service on select corridors or segments of routes to optimize scarce financial resources and address first/last mile travel needs. Microtransit is a key component of the Refueled multimodal service strategy.
3. Implement 10 Commuter Link service between Indio and San Bernardino. Originally slated to begin service in May 2020, the opening is now delayed until California State University, San Bernardino and Palm Desert resume on-campus classes.
4. Implement Route 111X weekday express service, a pilot project funded with Congestion Mitigation and Air Quality funds. It will provide service between Indio and Palm Springs. The actual start date will be determined by the transit market's recovery.
5. Implement the California Air Resource Board's Innovative Clean Transit (ICT) rollout plan. The ICT regulation requires SunLine to gradually transition to a 100 percent zero-emission bus fleet.
6. Develop and implement the Solar Microgrid to Hydrogen project to support hydrogen production to refuel fuel cell buses. This program will benefit not only the Coachella Valley and its surrounding areas, but will also benefit the transit industry as a whole.
7. Implement transit enhancements. Plan and construct bus stop improvements to support the new Route 111X service.
8. Upgrade the existing 350 bar public hydrogen station located at SunLine's Thousand Palms facility to a modern public station capable of fueling current and future hydrogen vehicles. This includes refueling 350 and 700 bar light and heavy duty vehicles.

SunLine Transit Agency
SHORT RANGE TRANSIT PLAN
FY 2020/2021 - FY 2022/2023

Operating & Financial Data	FY 2016/17 Audited	FY 2017/18 Audited	FY 2018/19 Audited	FY 2019/20 Estimated	FY 2020/21 Planned
System-Wide Ridership	4,316,269	4,122,539	4,217,807	4,050,157	3,908,259
Operating Cost Per Revenue Hour	$107.26	$107.07	$111.38	$121.41	$133.37

Table 4.0 - Summary of Funding Requests - FY 2020/21

SunLine Transit Agency

Operating

Project	Total Amount of Funds	5307 IC [1]	5307 IC CARES OB [2]	5310 OB [3]	5311 [4]	5311 (f) CARES [5]	5311 CARES [6]	5311 FOB [7]	5312 OB [8]	5339 IC [9]	CMAQ OB [10]	FARE [11]	LCTOP OB [12]	LCTOP PUC99313 [13]	LCTOP PUC99314 [14]	LTF [15]
111 Express	$230,457										$184,366					$46,091
Anti-Human Trafficking Campaign	$46,650								$37,320							$9,330
COD Haul Pass	$110,000															
Commuter 10	$391,918					$53,889		$161,666								$25,709
CSUSB Haul Pass	$12,207															
Haul Pass	$337,000												$337,000			
Operating Assistance	$39,036,669	$4,968,507	$13,208,971		$303,219		$300,000					$1,399,824				$10,810,502
SunRide Ride Share	$250,000										$200,000					$50,000
Taxi Voucher	$118,508			$29,627												$29,627
TEST RECORD																
Vanpool Program	$306,741										$278,000					$28,741
Sub-total Operating	$40,840,150	$4,968,507	$13,208,971	$29,627	$303,219	$53,889	$300,000	$161,666	$37,320	$0	$662,366	$1,399,824	$337,000	$0	$0	$11,000,000

Capital

Project	Total Amount of Funds	5307 IC [1]	5307 IC CARES OB [2]	5310 OB [3]	5311 [4]	5311 (f) CARES [5]	5311 CARES [6]	5311 FOB [7]	5312 OB [8]	5339 IC [9]	CMAQ OB [10]	FARE [11]	LCTOP OB [12]	LCTOP PUC99313 [13]	LCTOP PUC99314 [14]	LTF [15]
Bus Simulator (2) - SL-19-10	$-298,800															
Facility Improvements - SL-21-15	$80,000															
Heavy Duty Tow Truck - SL-20-13	$-400,000															
Hydrogen Station Improvements - SL-19-11	$-400,000															
Information Technology Projects - SL-21-12	$570,800															
Maintenance Tools and Equipment - SL-21-10	$89,500															
Microgrid to Hydrogen - SL-21-01	$1,038,101													$864,077	$174,024	
Operations, Division II, & Electrolyzer Access Control Surv. - SL-21-13	$250,000	$200,000														
Perimeter Lighting Division I - SL-21-14	$80,000															
Public Hydrogen Station - SL-21-07	$2,500,000															
Purchase Computer Hardware - SL-21-05	$4,120			$4,120												
Replacement Bus - SL-21-02	$768,000	$359,400														
Replacement Support Vehicles - SL-21-11	$415,000															
Safety Enhancement Projects - SL-21-08	$60,000	$48,000														
SunLine Center of Excellence in Zero Emissions Technology - SL-21-06	$679,796															
SunRide Vehicle Purchase (4) - SL-21-03	$582,489										$465,991					
Upgrade Division I Fence - SL-21-09	$100,000															
Vans for Service Expansion (3) - SL-21-04	$179,200			$179,200												
Sub-total Capital	$6,298,206	$607,400	$0	$183,320	$0	$0	$0	$0	$0	$0	$465,991	$0	$0	$864,077	$174,024	$0
Total Operating & Capital	$47,138,356	$5,575,907	$13,208,971	$212,947	$303,219	$53,889	$300,000	$161,666	$37,320	$0	$1,128,357	$1,399,824	$337,000	$864,077	$174,024	$11,000,000

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Table 4.0 - Summary of Funding Requests - FY 2020/21

SunLine Transit Agency

Operating

Project	Total Amount of Funds	LTF-OB [16]	MA SPT [17]	OTHR FED [18]	OTHR LCL [19]	SGR PUC99313 [20]	SGR PUC99314 [21]	STA - OB [22]	STA PUC99313 [23]	STA PUC99314 [24]						
111 Express	$230,457															
Anti-Human Trafficking Campaign	$46,650															
COD Haul Pass	$110,000				$110,000											
Commuter 10	$391,918				$150,654											
CSUSB Haul Pass	$12,207				$12,207											
Haul Pass	$337,000															
Operating Assistance	$39,036,669		$5,955,883		$2,089,763											
SunRide Ride Share	$250,000															
Taxi Voucher	$118,508				$59,254											
TEST RECORD																
Vanpool Program	$306,741															
Sub-total Operating	$40,840,150	$0	$5,955,883	$0	$2,421,878	$0	$0	$0	$0	$0						

Capital

Project	Total Amount of Funds	LTF-OB [16]	MA SPT [17]	OTHR FED [18]	OTHR LCL [19]	SGR PUC99313 [20]	SGR PUC99314 [21]	STA - OB [22]	STA PUC99313 [23]	STA PUC99314 [24]						
Bus Simulator (2) - SL-19-10	$-298,800							$-298,800								
Facility Improvements - SL-21-15	$80,000								$80,000							
Heavy Duty Tow Truck - SL-20-13	$-400,000							$-400,000								
Hydrogen Station Improvements - SL-19-11	$-400,000	$-400,000														
Information Technology Projects - SL-21-12	$570,800							$298,800	$272,000							
Maintenance Tools and Equipment - SL-21-10	$89,500								$89,500							
Microgrid to Hydrogen - SL-21-01	$1,038,101															
Operations, Division II, & Electrolyzer Access Control Surv. - SL-21-13	$250,000								$50,000							
Perimeter Lighting Division I - SL-21-14	$80,000								$80,000							
Public Hydrogen Station - SL-21-07	$2,500,000	$400,000						$400,000	$875,215	$824,785						
Purchase Computer Hardware - SL-21-05	$4,120															
Replacement Bus - SL-21-02	$768,000			$255,000					$153,600							
Replacement Support Vehicles - SL-21-11	$415,000								$415,000							
Safety Enhancement Projects - SL-21-08	$60,000								$12,000							
SunLine Center of Excellence in Zero Emissions Technology - SL-21-06	$679,796					$665,719	$14,077									
SunRide Vehicle Purchase (4) - SL-21-03	$582,489								$116,498							
Upgrade Division I Fence - SL-21-09	$100,000						$100,000									
Vans for Service Expansion (3) - SL-21-04	$179,200															
Sub-total Capital	$6,298,206	$0	$0	$255,000	$0	$665,719	$114,077	$0	$2,143,813	$824,785						
Total Operating & Capital	$47,138,356	$0	$5,955,883	$255,000	$2,421,878	$665,719	$114,077	$0	$2,143,813	$824,785						

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Table 4.0 - Summary of Funding Requests - FY 2020/21

SunLine Transit Agency

FY 2020/21 Projected Funding Details		
5307 IC	$4,968,507	[1] FY21 Apportionment.
5307 IC CARES OB	$13,208,971	[2] Obligated funds FY20.
5310 OB	$29,627	[3] Operating: Remaining Taxi Voucher funds. Capital: FY21 application to CalTrans. SL-21-04 will use $44,800 in toll credits as a match, and SL 21-21-05 will use $1,030 in toll credits as a match.
5311	$303,219	[4] 5311 application for regional and intercity apportionment.
5311 (f) CARES	$53,889	[5] 5311(f) CARES Act request through the Division of Rail and Mass Transportation.
5311 CARES	$300,000	[6] Phase 2 of distribution for FTA 5311 CARES Act.
5311 FOB	$161,666	[7] 5311(f) application for regional and intercity apportionment.
5312 OB	$37,320	[8] 5312 Public Transportation Innovation project selection
CMAQ OB	$662,366	[10] Obligated Funds.
FARE	$1,399,824	[11] Estimated FY21 ridership projections.
LCTOP OB	$337,000	[12] Obligated Funds.
LTF	$11,000,000	[15] FY21 Apportionment
MA SPT	$5,955,883	[17] FY21 apportionment
OTHR LCL	$2,421,878	[19] Advertising revenue ($100,000), Bus Shelter Maintenance ($122,482), Non Trans Revenue ($8,000), SRA Overhead Fee revenue ($27,381), Outside Fueling Sales ($800,000), CNG Rebate ($400,000), Emission Credit Revenue ($600,000), Other Revenue and Interest ($31,900), Taxi Voucher ($59,254), CSUSB Regional Service ($150,654), Haul Pass COD ($110,000), Haul Pass CSUSB ($12,207).
Total Estimated Operating Funding Request	$40,840,150	
5307 IC	$607,400	[1] FY21 Apportionment.
5310 OB	$183,320	[3] Operating: Remaining Taxi Voucher funds. Capital: FY21 application to CalTrans. SL-21-04 will use $44,800 in toll credits as a match, and SL 21-21-05 will use $1,030 in toll credits as a match.
CMAQ OB	$465,991	[10] Obligated Funds.
LCTOP PUC99313	$864,077	[13] FY21 Apportionment.
LCTOP PUC99314	$174,024	[14] FY21 Apportionment
LTF-OB	$0	[16] SL-19-11 obligated refunds repurposed to SL-20-07.
OTHR FED	$255,000	[18] 5339(a) State Discretionary Bus Replacement through Division of Rail and Mass Transportation.
SGR PUC99313	$665,719	[20] FY21 apportionment. New Projects.
SGR PUC99314	$114,077	[21] FY21 apportionment. New Projects.
STA - OB	$0	[22] Obligated funds moved from SL-20-13
STA PUC99313	$2,143,813	[23] FY21 Apportionment.
STA PUC99314	$824,785	[24] FY21 Apportionment.
Total Estimated Capital Funding Request	$6,298,206	
Total Funding Request	**$47,138,356**	

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FY 2020/21 SRTP

SunLine Transit Agency

Table 4.0 A - Capital Project Justification

Project Number: SL-19-10

FTIP No: Not Assigned - New Project

Project Name: Bus Simulator (2)

Category: Equipment

Sub-Category: Systems

Fuel Type: N/A

Project Description: The project will purchase two (2) bus simulators to provide realistic scenario driver training.

Project Justification: This equipment will provide realistic driving simulation in a controlled classroom environment. This allows the Agency to use minimal resources and provide a greater level of training and correct driving techniques to mitigate potential hazards.

Project Schedule:

Start Date	Completion Date
June 2018	June 2021

PROJECT FUNDING SOURCES (REQUESTED):

Fund Type	Fiscal Year	Amount
STA - OB	FY 2020/21	-$298,800
Total		-$298,800

PRIOR YEAR PROJECTS OF A SIMILAR NATURE WITH UNEXPENDED BALANCE INCLUDING PROJECTS APPROVED BUT NOT YET ORDERED

FTA Grant No.	FTIP ID No.	RCTC/SRTP Project No.	Description

FY 2020/21 SRTP

SunLine Transit Agency

Table 4.0 A - Capital Project Justification

Project Number: SL-19-11

FTIP No: Not Assigned - New Project

Project Name: Hydrogen Station Improvements

Category: Facilities

Sub-Category: Rehabilitation/Improvement

Fuel Type: Hydrogen

Project Description: Hydrogen fueling station and hydrogen program improvements

Project Justification: Project to make improvements in regards to the Agency's hydrogen station and assistance in the expansion of the hydrogen fueling capacities.

Project Schedule:

Start Date	Completion Date
July 2018	June 2021

PROJECT FUNDING SOURCES (REQUESTED):

Fund Type	Fiscal Year	Amount
LTF-OB	FY 2020/21	-$400,000
Total		-$400,000

PRIOR YEAR PROJECTS OF A SIMILAR NATURE WITH UNEXPENDED BALANCE INCLUDING PROJECTS APPROVED BUT NOT YET ORDERED

FTA Grant No.	FTIP ID No.	RCTC/SRTP Project No.	Description

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FY 2020/21 SRTP

SunLine Transit Agency

Table 4.0 A - Capital Project Justification

Project Number: SL-20-13 **FTIP No:** Not Assigned - New Project

Project Name: Heavy Duty Tow Truck

Category: Equipment

Sub-Category: Expansion

Fuel Type: Other

Project Description: Purchase of one (1) heavy-duty tow truck tractor and landoll trailer to pick up disabled buses and vehicles and to tow buses to bus conferences when driving is not efficient.

Project Justification: The purchase of one (1) heavy-duty tow truck tractor and trailer will ensure SunLine's ability to tow our vehicles and maintain service reliability and reduce maintenance costs.

Project Schedule:

Start Date	Completion Date
July 2019	June 2022

PROJECT FUNDING SOURCES (REQUESTED):

Fund Type	Fiscal Year	Amount
STA - OB	FY 2020/21	-$400,000
Total		-$400,000

PRIOR YEAR PROJECTS OF A SIMILAR NATURE WITH UNEXPENDED BALANCE INCLUDING PROJECTS APPROVED BUT NOT YET ORDERED

FTA Grant No.	FTIP ID No.	RCTC/SRTP Project No.	Description

FY 2020/21 SRTP

SunLine Transit Agency

Table 4.0 A - Capital Project Justification

Project Number: SL-21-01

FTIP No: Not Assigned - New Project

Project Name: Microgrid to Hydrogen

Category: Land Acquisition

Sub-Category: Expansion

Fuel Type: N/A

Project Description: The solar microgrid will provide clean, renewable energy in a first-of-a-kind, self-sustaining onsite solar plus battery storage power-plant used specifically to deliver hydrogen power to SunLine's transit fleet. SunLine's Solar Microgrid to Hydrogen will deliver two (2) Megawatts of battery storage (Electric Storage System) and one (1) Megawatt of solar energy. The project location is at the SunLine facility in Thousand Palms, California.

Project Justification: The solar microgrid to hydrogen project will assist in the sustainable production of renewable energy to help power the Agency's electrolyzer to deliver hydrogen fuel to SunLine's transit fleet.

Project Schedule:

Start Date	Completion Date
September 2020	June 2022

PROJECT FUNDING SOURCES (REQUESTED):

Fund Type	Fiscal Year	Amount
LCTOP PUC99313	FY 2020/21	$864,077
LCTOP PUC99314	FY 2020/21	$174,024
Total		$1,038,101

PRIOR YEAR PROJECTS OF A SIMILAR NATURE WITH UNEXPENDED BALANCE INCLUDING PROJECTS APPROVED BUT NOT YET ORDERED

FTA Grant No.	FTIP ID No.	RCTC/SRTP Project No.	Description

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FY 2020/21 SRTP

SunLine Transit Agency

Table 4.0 A - Capital Project Justification

Project Number: SL-21-02

FTIP No: Not Assigned - New Project

Project Name: Replacement Bus

Category: Bus

Sub-Category: Replacement

Fuel Type: Fuel Cell

Project Description: Purchase of one (1) fixed-route bus to replace existing CNG bus that will meet its useful life as outlined by FTA guidelines.

Project Justification: The purchase of one (1) fixed-route bus will ensure SunLine replaces older fleet vehicles to maintain services reliability and reduce maintenance costs.

Project Schedule:

Start Date	Completion Date
August 2020	July 2021

PROJECT FUNDING SOURCES (REQUESTED):

Fund Type	Fiscal Year	Amount
5307 IC	FY 2020/21	$359,400
OTHR FED	FY 2020/21	$255,000
STA PUC99313	FY 2020/21	$153,600
Total		$768,000

PRIOR YEAR PROJECTS OF A SIMILAR NATURE WITH UNEXPENDED BALANCE INCLUDING PROJECTS APPROVED BUT NOT YET ORDERED

FTA Grant No.	FTIP ID No.	RCTC/SRTP Project No.	Description

FY 2020/21 SRTP

SunLine Transit Agency

Table 4.0 A - Capital Project Justification

Project Number: SL-21-03

FTIP No: Not Assigned - New Project

Project Name: SunRide Vehicle Purchase (4)

Category: Vanpool

Sub-Category: Expansion

Fuel Type: CNG

Project Description: Purchase of Four (4) vehicles for SunLine's rideshare program that would follow turn by turn instructions from a navigation system that connects live traffic conditions and real-time requests for pick-ups and drop-offs.

Project Justification: SunRide is designed to bridge the first/last mile gap of travel. The service would be used for short trips under 3 miles defined in service zones.

Project Schedule:

Start Date	Completion Date
July 2020	October 2020

PROJECT FUNDING SOURCES (REQUESTED):

Fund Type	Fiscal Year	Amount
CMAQ OB	FY 2020/21	$465,991
STA PUC99313	FY 2020/21	$116,498
Total		$582,489

PRIOR YEAR PROJECTS OF A SIMILAR NATURE WITH UNEXPENDED BALANCE INCLUDING PROJECTS APPROVED BUT NOT YET ORDERED

FTA Grant No.	FTIP ID No.	RCTC/SRTP Project No.	Description

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FY 2020/21 SRTP

SunLine Transit Agency

Table 4.0 A - Capital Project Justification

Project Number: SL-21-04 **FTIP No:** Not Assigned - New Project

Project Name: Vans for Service Expansion (3)

Category: Vanpool

Sub-Category: Expansion

Fuel Type: CNG

Project Description: Procurement of three (3) expansion vans that are ADA accessible in response to customer feedback.

Project Justification: Meet the transportation needs of customers who are ADA eligible and depend on SunLine services as their means of transportation.

Project Schedule:

Start Date	Completion Date
July 2020	December 2020

PROJECT FUNDING SOURCES (REQUESTED):

Fund Type	Fiscal Year	Amount
5310 OB	FY 2020/21	$179,200
Total		$179,200

PRIOR YEAR PROJECTS OF A SIMILAR NATURE WITH UNEXPENDED BALANCE INCLUDING PROJECTS APPROVED BUT NOT YET ORDERED

FTA Grant No.	FTIP ID No.	RCTC/SRTP Project No.	Description

FY 2020/21 SRTP

SunLine Transit Agency

Table 4.0 A - Capital Project Justification

Project Number: SL-21-05

FTIP No: Not Assigned - New Project

Project Name: Purchase Computer Hardware

Category: Equipment

Sub-Category: Expansion

Fuel Type: N/A

Project Description: Procurement of hardware for SunLine's expansion vans.

Project Justification: Hardware for a service that will meet the transportation needs of customers who are ADA eligible and depend on SunLine services as their means of transportation.

Project Schedule:

Start Date	Completion Date
July 2020	December 2020

PROJECT FUNDING SOURCES (REQUESTED):

Fund Type	Fiscal Year	Amount
5310 OB	FY 2020/21	$4,120
Total		$4,120

PRIOR YEAR PROJECTS OF A SIMILAR NATURE WITH UNEXPENDED BALANCE INCLUDING PROJECTS APPROVED BUT NOT YET ORDERED

FTA Grant No.	FTIP ID No.	RCTC/SRTP Project No.	Description

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FY 2020/21 SRTP

SunLine Transit Agency

Table 4.0 A - Capital Project Justification

Project Number: SL-21-06 **FTIP No:** Not Assigned - New Project

Project Name: SunLine Center of Excellence in Zero Emissions Technology

Category: Facilities

Sub-Category: Rehabilitation/Improvement

Fuel Type: N/A

Project Description: Maintenance facility for Zero Emission Vehicles

Project Justification: The maintenance bay training facility will provide comprehensive workforce training programs to zero emission transportation technologies that support commercial operation of zero emission buses.

Project Schedule:

Start Date	Completion Date
July 2020	June 2022

PROJECT FUNDING SOURCES (REQUESTED):

Fund Type	Fiscal Year	Amount
SGR PUC99313	FY 2020/21	$665,719
SGR PUC99314	FY 2020/21	$14,077
Total		$679,796

PRIOR YEAR PROJECTS OF A SIMILAR NATURE WITH UNEXPENDED BALANCE INCLUDING PROJECTS APPROVED BUT NOT YET ORDERED

FTA Grant No.	FTIP ID No.	RCTC/SRTP Project No.	Description

FY 2020/21 SRTP

SunLine Transit Agency

Table 4.0 A - Capital Project Justification

Project Number: SL-21-07

FTIP No: Not Assigned - New Project

Project Name: Public Hydrogen Station

Category: Equipment

Sub-Category: Upgrade

Fuel Type: N/A

Project Description: Upgrade the existing 350 bar, public hydrogen station located at SunLine's Thousand Palms facility, to a modern public station capable of fueling current and future hydrogen vehicles. This includes refueling 350 and 700 bar light and heavy duty vehicles. The station will be able to fuel 5kg capacity light duty vehicle fills back-to-back without having to wait to recharge, and two 60kg capacity Class 8 heavy duty trucks, in less than an hour. The upgrade includes installing a 700 bar refueling system that consists of main skid, SAE 2601-1 new standards dispenser and storage unit up to 130 kg of hydrogen.

Project Justification: SunLine's current hydrogen station is being utilized to refuel SunLine's fleet of hydrogen powered electric fuel cell buses at 350 bar with no public access to the station. The upgraded 700 bar public station will be accessible to light and heavy duty vehicles. This project will provide additional source of revenue by selling hydrogen fuel and will support SunLine's future fleet.

Project Schedule:

Start Date	Completion Date
January 2021	June 2022

PROJECT FUNDING SOURCES (REQUESTED):

Fund Type	Fiscal Year	Amount
LTF-OB	FY 2020/21	$400,000
STA - OB	FY 2020/21	$400,000
STA PUC99313	FY 2020/21	$875,215
STA PUC99314	FY 2020/21	$824,785
Total		$2,500,000

PRIOR YEAR PROJECTS OF A SIMILAR NATURE WITH UNEXPENDED BALANCE INCLUDING PROJECTS APPROVED BUT NOT YET ORDERED

FTA Grant No.	FTIP ID No.	RCTC/SRTP Project No.	Description

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FY 2020/21 SRTP

SunLine Transit Agency

Table 4.0 A - Capital Project Justification

Project Number: SL-21-08

FTIP No: Not Assigned - New Project

Project Name: Safety Enhancement Projects

Category: Equipment

Fuel Type: N/A

Project Description: To enhance the safety and security of the facility

Project Justification: This project is needed to upgrade the current guard shack at SunLine's Division II facility. The upgrade will include security enhancements for occupant safety, proper securement of IT, and video equipment. In addition, the installation of a security film on the stairwell glass panels will assist in the event of the glass panels breaking the film and will keep the panels in place.

Project Schedule:

Start Date	Completion Date
October 2020	June 2021

PROJECT FUNDING SOURCES (REQUESTED):

Fund Type	Fiscal Year	Amount
5307 IC	FY 2020/21	$48,000
STA PUC99313	FY 2020/21	$12,000
Total		$60,000

PRIOR YEAR PROJECTS OF A SIMILAR NATURE WITH UNEXPENDED BALANCE INCLUDING PROJECTS APPROVED BUT NOT YET ORDERED

FTA Grant No.	FTIP ID No.	RCTC/SRTP Project No.	Description

FY 2020/21 SRTP

SunLine Transit Agency

Table 4.0 A - Capital Project Justification

Project Number: SL-21-09

FTIP No: Not Assigned - New Project

Project Name: Upgrade Division I Fence

Category: Facilities

Sub-Category: Rehabilitation/Improvement

Fuel Type: N/A

Project Description: This project is to secure the base of the perimeter fencing at SunLine's Division I facility in Thousand Palms.

Project Justification: This project is required to provide safe and secure transit facilities for staff and agency access

Project Schedule:

Start Date	Completion Date
January 2021	June 2022

PROJECT FUNDING SOURCES (REQUESTED):

Fund Type	Fiscal Year	Amount
SGR PUC99314	FY 2020/21	$100,000
Total		$100,000

PRIOR YEAR PROJECTS OF A SIMILAR NATURE WITH UNEXPENDED BALANCE INCLUDING PROJECTS APPROVED BUT NOT YET ORDERED

FTA Grant No.	FTIP ID No.	RCTC/SRTP Project No.	Description

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FY 2020/21 SRTP

SunLine Transit Agency

Table 4.0 A - Capital Project Justification

Project Number: SL-21-10 **FTIP No**: Not Assigned - New Project

Project Name: Maintenance Tools and Equipment

Category: Equipment

Fuel Type: N/A

Project Description: Funds requested in this fiscal year will enable SunLine to improve maintenance tools and equipment in Thousand Palms, Indio, and Coachella.

Project Justification: This project is necessary for upgrading aging equipment at the various SunLine locations, including equipment for oil storage, and a shop floor sweeper, and golf carts.

Project Schedule:

Start Date	Completion Date
July 2020	December 2021

PROJECT FUNDING SOURCES (REQUESTED):

Fund Type	Fiscal Year	Amount
STA PUC99313	FY 2020/21	$89,500
Total		$89,500

PRIOR YEAR PROJECTS OF A SIMILAR NATURE WITH UNEXPENDED BALANCE INCLUDING PROJECTS APPROVED BUT NOT YET ORDERED

FTA Grant No.	FTIP ID No.	RCTC/SRTP Project No.	Description

FY 2020/21 SRTP

SunLine Transit Agency

Table 4.0 A - Capital Project Justification

Project Number: SL-21-11

FTIP No: Not Assigned - New Project

Project Name: Replacement Support Vehicles

Category: Support Vehicles

Sub-Category: Replacement

Fuel Type: CNG

Project Description: SunLine's support vehicles comply with FTA regulations and use alternative fueled vehicles (CNG). SunLine plans to purchase cars and/or pick-ups.

Project Justification: The replacement support vehicles are needed for use by operations and maintenance staff as well as for use by administration staff.

Project Schedule:

Start Date	Completion Date
October 2020	June 2021

PROJECT FUNDING SOURCES (REQUESTED):

Fund Type	Fiscal Year	Amount
STA PUC99313	FY 2020/21	$415,000
Total		$415,000

PRIOR YEAR PROJECTS OF A SIMILAR NATURE WITH UNEXPENDED BALANCE INCLUDING PROJECTS APPROVED BUT NOT YET ORDERED

FTA Grant No.	FTIP ID No.	RCTC/SRTP Project No.	Description

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FY 2020/21 SRTP

SunLine Transit Agency

Table 4.0 A - Capital Project Justification

Project Number: SL-21-12

FTIP No: Not Assigned - New Project

Project Name: Information Technology Projects

Category: Equipment

Fuel Type: N/A

Project Description: This project supports the purchase of the Agency's need for software, network infrastructure, computing resources, and business analytics.

Project Justification: The use of IT equipment is critical to the daily function and efficiency in providing safety, reliable, and efficient transit services.

Project Schedule:

Start Date	Completion Date
January 2021	June 2022

PROJECT FUNDING SOURCES (REQUESTED):

Fund Type	Fiscal Year	Amount
STA - OB	FY 2020/21	$298,800
STA PUC99313	FY 2020/21	$272,000
Total		$570,800

PRIOR YEAR PROJECTS OF A SIMILAR NATURE WITH UNEXPENDED BALANCE INCLUDING PROJECTS APPROVED BUT NOT YET ORDERED

FTA Grant No.	FTIP ID No.	RCTC/SRTP Project No.	Description

FY 2020/21 SRTP

SunLine Transit Agency

Table 4.0 A - Capital Project Justification

Project Number: SL-21-13 **FTIP No:** Not Assigned - New Project

Project Name: Operations, Division II, & Electrolyzer Access Control Surveillance

Category: Equipment

Fuel Type: N/A

Project Description: Access control and surveillance for the Agency's Operations, Division II facility, and Access Control Surveillance.

Project Justification: Improve safety and surveillance at SunLine's Operations Facility, Division II Facility, and Electrolyzer.

Project Schedule:

Start Date	Completion Date
July 2020	March 2021

PROJECT FUNDING SOURCES (REQUESTED):

Fund Type	Fiscal Year	Amount
5307 IC	FY 2020/21	$200,000
STA PUC99313	FY 2020/21	$50,000
Total		$250,000

PRIOR YEAR PROJECTS OF A SIMILAR NATURE WITH UNEXPENDED BALANCE INCLUDING PROJECTS APPROVED BUT NOT YET ORDERED

FTA Grant No.	FTIP ID No.	RCTC/SRTP Project No.	Description

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FY 2020/21 SRTP

SunLine Transit Agency

Table 4.0 A - Capital Project Justification

Project Number: SL-21-14

FTIP No: Not Assigned - New Project

Project Name: Perimeter Lighting Division I

Category: Equipment

Sub-Category: Upgrade

Fuel Type: N/A

Project Description: Install perimeter lighting to enhance the safety and security of the facility

Project Justification: The enhancement of perimeter lighting is required to provide safe and secure transit facilities for staff and vehicles

Project Schedule:

Start Date	Completion Date
July 2020	December 2020

PROJECT FUNDING SOURCES (REQUESTED):

Fund Type	Fiscal Year	Amount
STA PUC99313	FY 2020/21	$80,000
Total		$80,000

PRIOR YEAR PROJECTS OF A SIMILAR NATURE WITH UNEXPENDED BALANCE INCLUDING PROJECTS APPROVED BUT NOT YET ORDERED

FTA Grant No.	FTIP ID No.	RCTC/SRTP Project No.	Description

FY 2020/21 SRTP

SunLine Transit Agency

Table 4.0 A - Capital Project Justification

Project Number: SL-21-15

FTIP No: Not Assigned - New Project

Project Name: Facility Improvements

Category: Facilities

Sub-Category: Rehabilitation/Improvement

Fuel Type: N/A

Project Description: Improve existing facilities in Thousand Palms, Indio, and Coachella

Project Justification: This project is necessary for upgrading the aging facility and equipment at the various SunLine locations including HVAC, plumbing, electrical and others as needed.

Project Schedule:

Start Date	Completion Date
July 2020	December 2022

PROJECT FUNDING SOURCES (REQUESTED):

Fund Type	Fiscal Year	Amount
STA PUC99313	FY 2020/21	$80,000
Total		$80,000

PRIOR YEAR PROJECTS OF A SIMILAR NATURE WITH UNEXPENDED BALANCE INCLUDING PROJECTS APPROVED BUT NOT YET ORDERED

FTA Grant No.	FTIP ID No.	RCTC/SRTP Project No.	Description

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Table 4.0B Farebox Calculation

Table 4B - Farebox Calculation (consistent with Commission Farebox Recovery Policy)				
	Revenue Sources included in Farebox Calculation	**Actual Amount from FY18/19 Audit**	**FY19/20 (Estimate)**	**FY20/21 (Plan)**
1	Passenger Fares	2,866,073.00	1,909,277.93	1,399,824.00
2	Interest	14,560.00	14,847.43	15,500.00
3	General Fund Supplement	-	-	-
4	Measure A	580,000.00	426,988.41	3,986,934.68
5	Advertising Revenue	243,389.00	225,174.81	100,000.00
6	Gain on Sale of Fixed Assets	-	-	-
7	CNG Revenue / Emission Credit	1,266,494.00	3,493,635.80	1,800,000.00
8	Lease / Other Revenue	-	-	-
9	Federal Excise Tax Refund	-	-	-
10	Investment Income	-	-	-
11	CalPers CERBT	-	-	-
12	Fare Revenues from Exempt Routes	-	-	-
13	Other Revenues	885,709.00	652,032.47	506,378.00
	Total Revenue for Farebox Calculation (1-13)	5,856,225.00	6,721,956.86	7,808,636.68
	Total Operating Expenses for Farebox Calculation	33,375,694.00	36,062,000.33	40,840,150.00
	Farebox Recovery Ratio	17.55%	18.64%	19.12%

Project Description		Total Amount of Funds	Total Obligated Amount	LTF	STA	Obligated STA	Measure A	Obligated SGR	Section 5307 Indio/Cathedral City Palm Springs	Obligated Section 5307 Indio/Cathedral City Palm Springs	CARES ACT Section 5307	Section 5309	Section 5310	Section 5311	Section 5311 (f)	Section 5339	Obligated Section 5339	LCTOP	LCTOP Obligated	Obligated CMAQ	CMAQ	Other Revenue
OPERATING																						
Operating Assistance		$40,804,070	$4,962,864	$18,839,853			$9,037,987			$4,962,864	$2,160,147			$303,219								$2,500,000
Commuter 10		$391,918	$0	$25,709											$215,555							$150,654
Vanpool Program		$306,741	$0	$28,741																	$278,000	
111 Express		$600,000	$0	$120,000																	$480,000	
SunRide Ride Share		$250,000	$0	$50,000																	$200,000	
		$220,000	$0																			$220,000
CSUSB Haul Pass		$12,207	$0																			$12,207
Sub-total Operating		$42,584,936	$4,962,864	$19,064,303	$0	$0	$9,037,987		$0	$4,962,864	$2,160,147	$0	$0	$303,219	$215,555	$0		$0	$0	$0	$958,000	$2,882,861

CAPITAL																						
	Capital Project Number	Total Amount of Funds With Obligated	Total Obligated Amount	LTF	STA	Obligated STA	Measure A	Obligated SGR	Section 5307 Indio/Cathedral City Palm Springs	Obligated Section 5307 Indio/Cathedral City Palm Springs	CARES ACT Section 5307	Section 5309	Section 5310	Section 5311	Section 5311 (f)	Section 5339	Obligated Section 5339	LCTOP	LCTOP Obligated	Obligated CMAQ	CMAQ	Other Revenue
Replacement Buses (Battery Electric 2)	SL-22-01	$2,000,000	$0		$400,000											$1,600,000						
Replacement Buses (Fuel Cell 15)	SL-23-02	$15,000,000	$0																			$15,000,000
Support Vehicles (5 cars, 1 Truck)	SL-22-02	$265,000	$0		$265,000																	
Facility Improvements	SL-23-03	$352,000	$0		$352,000																	
Hydrogen Station Division I	SL-22-03	$3,500,000	$1,600,000							$1,600,000												$1,900,000
Demolition of Existing Trailers	SL-23-04	$80,000	$0		$80,000																	
Perimeter Fencing Electrolyzer	SL-22-04	$300,000	$0		$300,000																	
Mobile Command Center	SL-23-05	$500,000	$0		$100,000				$400,000													
Microgrid to Hydrogen Phase III	SL-22-05	$3,802,567	$0																			$3,802,567
Bus Refurbishment	SL-23-06	$2,500,000				$482,129		$17,871		$1,048,769							$951,231					
Indio CNG Station Upgrade	SL-22-06	$1,500,000				$1,500,000																
Sub-total Capital		$29,799,567	$1,600,000	$0	$1,497,000	$1,982,129	$0	$17,871	$400,000	$2,648,769	$0	$0	$0	$0	$0	$1,600,000	$951,231	$0	$0	$0	$0	$20,702,567
Total Operating & Capital		$72,384,503	$6,562,864	$19,064,303	$1,497,000	$1,982,129	$9,037,987		$400,000	$7,611,633		$0	$0	$303,219	$215,555	$1,600,000		$0	$0	$0	$958,000	$23,585,428

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Table 4.2 Summary of Funding Requests in FY2021–2023

Project Description		Total Amount of Funds	Total Obligated Amount	LTF	STA	State of Good Repair	Measure A	Section 5307 Indio/Cathedral City Palm Springs	Obligated Section 5307 Indio/Cathedral City Palm Springs	Section 5339	CMAQ	Section 5311	Section 5311 (f)	Other	Farebox
OPERATING															
Operating Assistance		$40,804,070	$0	$21,000,000			$9,037,987	$4,962,864				$303,219		$2,500,000	$3,000,000
Commuter 10		$391,918	$0	$25,709									$215,555	$150,654	
Vanpool Program		$306,741	$0	$28,741							$278,000				
111 Express		$600,000	$306,741	$120,000							$480,000				
SunRide Ride Share		$40,809	$0	$6,800							$34,009				
COD Haul Pass		$300,000	$0											$300,000	
CSUSB Haul Pass		$12,207	$200,000											$12,207	
Sub-total Operating		$42,455,745	$506,741	$21,181,250	$0	$0	$9,037,987	$4,962,864	$0	$0	$792,009	$303,219	$215,555	$2,962,861	$3,000,000

CAPITAL															
	Capital Project Number	Total Amount of Funds With Obligated	Total Obligated Amount	LTF	STA	State of Good Repair	Measure A	Section 5307 Indio/Cathedral City Palm Springs	Obligated Section 5307 Indio/Cathedral City Palm Springs	Section 5339	CMAQ	Section 5311	Section 5311 (f)	Other	Farebox
Shop Equipment	SL-23-01	$15,000	$0		$15,000										
Support Vehicle (Truck)	SL-23-02	$135,000	$0		$135,000										
Driver Training Facility	SL-23-03	$4,000,000	$0		$800,000			$1,600,000		$1,600,000					
Guard Shack Upgrade	SL-23-04	$100,000	$0		$100,000										
Sub-total Capital		$4,250,000	$0	$0	$1,050,000	$0	$0	$1,600,000	$0	$1,600,000	$0	$0	$0	$0	$0
Total Operating & Capital		$46,705,745	$506,741	$21,181,250	$1,050,000	$0	$9,037,987	$6,562,864	$0	$1,600,000	$792,009	$303,219	$215,555	$2,962,861	$3,000,000

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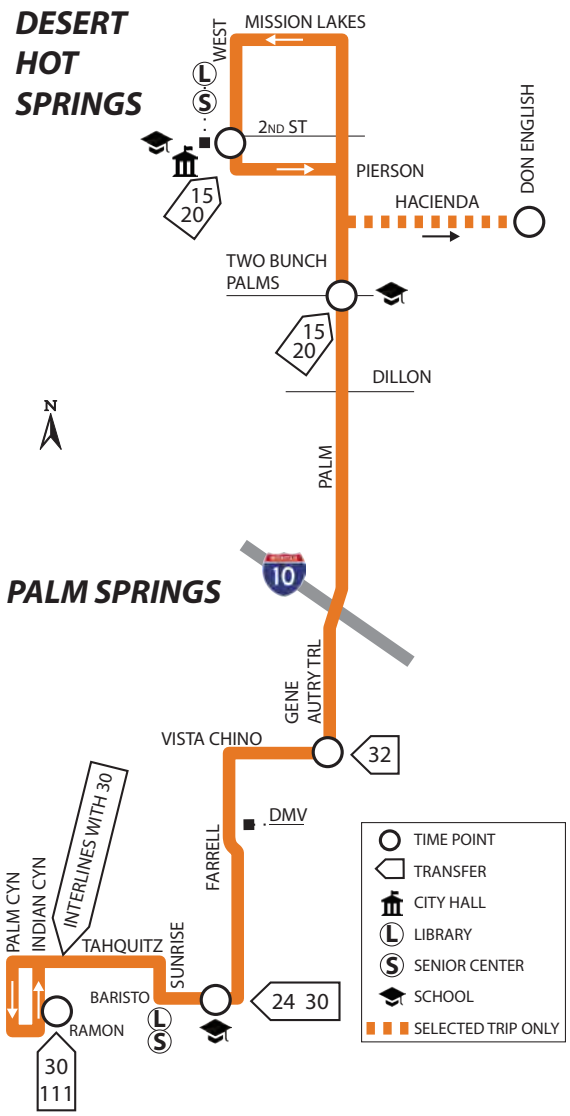
Appendix A:
SunLine Existing Route Profiles

Route 14

Desert Hot Springs – Palm Springs

Route 14 is one of SunLine's most successful routes. This trunk route links the cities of Desert Hot Springs and Palm Springs, connecting to Routes 15, 20, 24, 30, Palm Springs BUZZ, and 111, and linking riders with local shopping centers, schools, the Palm Springs Convention Center, Department of Motor Vehicles, the Employment Development Department, libraries, senior center, theaters, and other services within the communities of Desert Hot Springs and Palm Springs.

Route 14 operates with 20-minute frequency during weekday peak periods and 30-minute frequency during weekday evenings. Two Route 14 trips, including the last trip, serve Hacienda Avenue in Desert Hot Springs to meet passenger demand in this area. Additionally, one morning trip is provided to accommodate the volume of school students.



Hours of Operation		Service Span	Financial	
4:53 AM	11:20 PM	Weekdays	Annual Route Cost	$3,375,186
5:48 AM	10:41 PM	Weekends	Annual Farebox Route Revenue	$680,986
Frequency			Cost per Rider	$5.81
20/30 min		Weekdays (peak/off-peak)	Subsidy per Rider	$4.64
40 min		Weekends	**Ridership**	
Average Speed		Peak Vehicles		
15 mph		7	Average Daily Passengers Weekday	1,844
On Time Performance			Average Daily Passengers Weekends	1,034
		90.4%	Annual Passengers	580,984
Route Total Bidirectional Length (miles)			Passengers per Hour	20.8
		29.42	Passengers per Mile	1.4
Annual Revenue Miles			Annual Wheelchair Boardings	5,323
		429,302	Annual Bicycle Boardings	18,798
Annual Revenue Hours			Population within .5 mi of stop	32,276
		27,996	Jobs within .5 mi of stop	10,711

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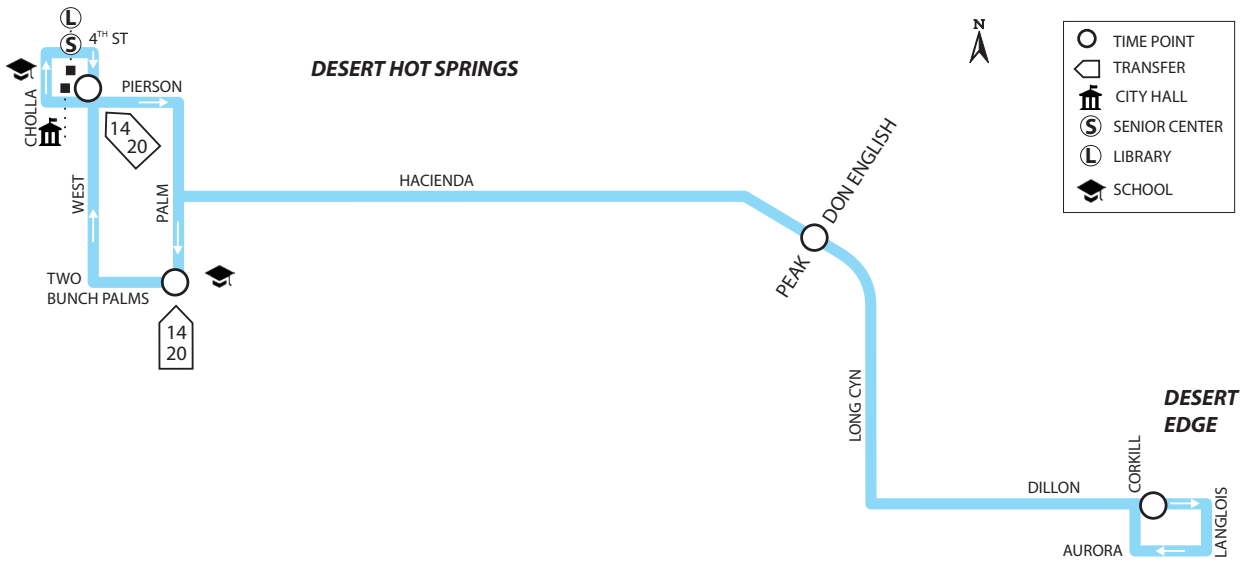
Route 15

Desert Hot Springs – Desert Edge

Route 15 serves the community of Desert Hot Springs and Desert Edge, a Riverside County unincorporated community located southeast of Desert Hot Springs. Route 15 connects to Routes 14 and 20, and links riders with local shopping centers, a neighborhood community center, Desert Hot Springs Recreation, schools, and other services within Desert Hot Springs.

The most recent Operational Analysis proposed a 30-minute frequency for this route. Frequency changes are under study and are subject to available funding and Board approval.

Hours of Operation		Service Span	Financial	
4:54 AM	8:49 PM	Weekdays	Annual Route Cost	$656,493
6:49 AM	7:441 PM	Weekends	Annual Farebox Route Revenue	$136,799
Frequency			Cost per Rider	$5.60
60 min		Weekdays	Subsidy per Rider	$4.43
60 min		Weekends	Ridership	
Average Speed		Peak Vehicles		
16 mph		1	Average Daily Passengers Weekday	381
On Time Performance			Average Daily Passengers Weekends	187
		90.3%	Annual Passengers	117,180
Route Total Bidirectional Length (miles)			Passengers per Hour	21.5
		15,9	Passengers per Mile	1.3
Annual Revenue Miles			Annual Wheelchair Boardings	1,048
		87,484	Annual Bicycle Boardings	2,011
Annual Revenue Hours			Population within .5 mi of stop	18,004
		5,448	Jobs within .5 mi of stop	1,649



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Route 20

Desert Hot Springs – Thousand Palms – Palm Desert

Route 20 provides limited stop service between Desert Hot Springs and Palm Desert. Route 20 provides residents of Desert Hot Springs and surrounding communities improved access to resources and employment opportunities concentrated toward the center of the Coachella Valley, including the College of the Desert. Route 20 connects with Routes 14, 15, 32, 54, 10 Commuter Link, and 111.

Hours of Operation		Service Span	Financial	
6:32 AM	7:55 PM	Weekdays	Annual Route Cost	$432,242
		No weekend service	Annual Farebox Route Revenue	$37,038
Frequency			Cost per Rider	$13.68
60 min		Weekdays	Subsidy per Rider	$12.51
		No weekend service	Ridership	
Average Speed		Peak Vehicles		
24 mph		2	Average Daily Passengers Weekday	124
On Time Performance			Average Daily Passengers Weekends	N/A
		91.2%	Annual Passengers	31,587
Route Total Bidirectional Length (miles)			Passengers per Hour	8.8
		48.5	Passengers per Mile	0.37
Annual Revenue Miles			Annual Wheelchair Boardings	63
		84,780	Annual Bicycle Boardings	736
Annual Revenue Hours			Population within .5 mi of stop	21,050
		3,582	Jobs within .5 mi of stop	8,436

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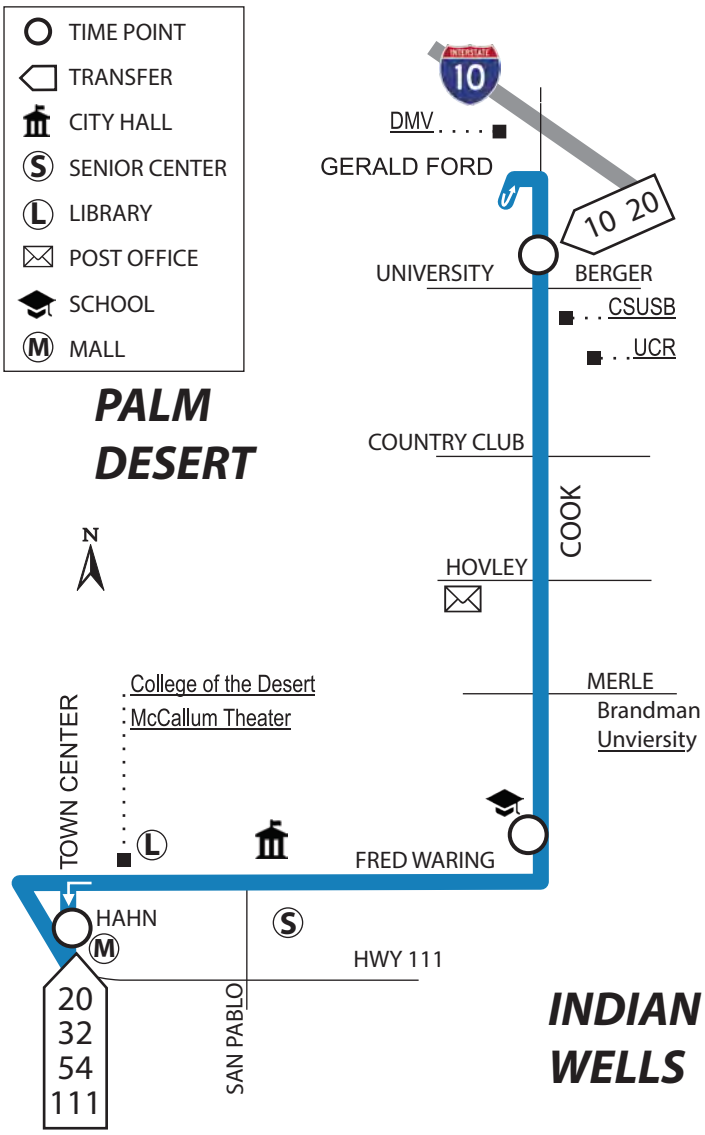
Route 21

Gerald Ford and Cook – Palm Desert Mall

Route 21 provides service to Palm Desert, enabling riders to access the College of the Desert, the McCallum Theater, Palm Desert City Hall, Kaiser Permanente, California State University, San Bernardino – Palm Desert Campus, University of California, Riverside – Palm Desert Campus, Palm Desert High School, Palm Desert Library, major employment sites, medical facilities, and shopping centers. Route 21 connects with Routes 20, 32, 54, 111, and 10 Commuter Link.



Hours of Operation		Service Span	Financial	
11:00 AM	3:50 PM	Weekdays	Annual Route Cost	$161,073
		No weekend service	Annual Farebox Route Revenue	$15,093
Frequency			Cost per Rider	$12.33
60 min		Weekdays	Subsidy per Rider	$11.18
		No weekend service	Ridership	
Average Speed		Peak Vehicles		
14 mph		1	Average Daily Passengers Weekday	51
On Time Performance			Average Daily Passengers Weekends	N/A
		90.9%	Annual Passengers	13,068
Route Total Bidirectional Length (miles)			Passengers per Hour	9.8
		13.8	Passengers per Mile	0.7
Annual Revenue Miles			Annual Wheelchair Boardings	80
		18,391	Annual Bicycle Boardings	284
Annual Revenue Hours			Population within .5 mi of stop	16,593
		1,334	Jobs within .5 mi of stop	10,768

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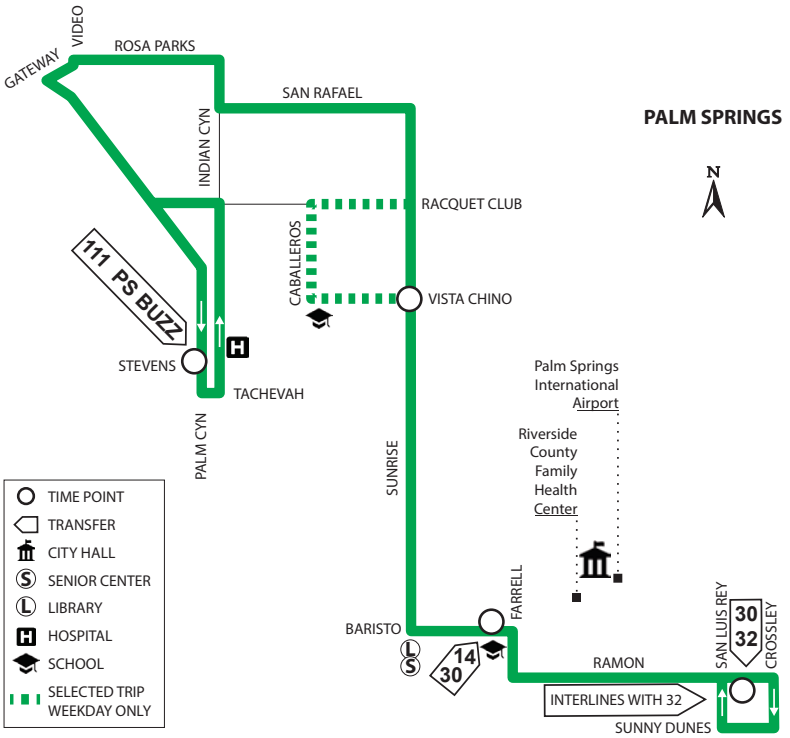
Route 24

Palm Springs

Route 24 offers service in Palm Springs with connections to Routes 14, 30, 32, Palm Springs BUZZ, and 111. Route 24 links riders to destinations such as the Desert Regional Hospital, Desert Highland Community Center, Social Security Administration, schools, medical facilities, theaters, and shopping centers.



Hours of Operation		Service Span	Financial	
6:10 AM	8:25 PM	Weekdays	Annual Route Cost	$1,539,296
6:18 AM	7:38 PM	Weekends	Annual Farebox Route Revenue	$206,797
Frequency			Cost per Rider	$8.73
40 min		Weekdays	Subsidy per Rider	$7.56
60 min		Weekends	**Ridership**	
Average Speed		Peak Vehicles		
11 mph		5	Average Daily Passengers Weekday	581
On Time Performance			Average Daily Passengers Weekends	263
		90.4%	Annual Passengers	176,322
Route Total Bidirectional Length (miles)			Passengers per Hour	13.8
		20.3	Passengers per Mile	1.03
Annual Revenue Miles			Annual Wheelchair Boardings	1,428
		171,466	Annual Bicycle Boardings	5,868
Annual Revenue Hours			Population within .5 mi of stop	23,624
		12,760	Jobs within .5 mi of stop	12,548

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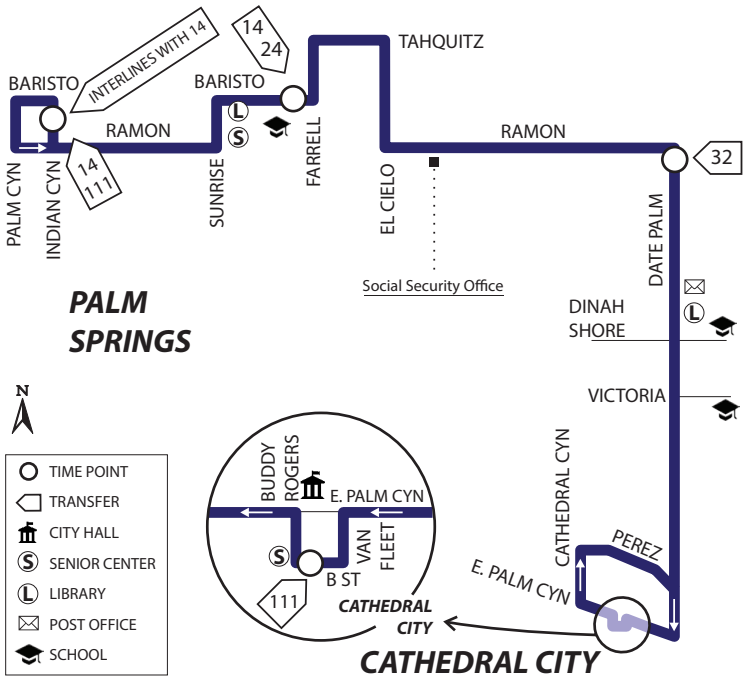
Route 30

Cathedral City – Palm Springs

Route 30 is one of SunLine's most successful routes. Route 30 is a trunk route providing service between the cities of Cathedral City and Palm Springs. Riding Route 30 provides customers with access to the Palm Springs International Airport, Palm Springs City Hall, Social Security Administration, public libraries, city halls, senior centers, schools, shopping centers, and various industrial parks. It operates with 20-minute frequency during weekday peak periods, connecting to Routes 14, 24, 32, Palm Springs BUZZ, and 111.

The most recent Operational Analysis proposed a 15-minute frequency for this trunk route. Frequency changes are under study and are subject to available funding and Board approval.



Hours of Operation		Service Span	Financial	
5:40 AM	10:440 PM	Weekdays	Annual Route Cost	$3,095,564
6:15 AM	9:41 PM	Weekends	Annual Farebox Route Revenue	$725,263
Frequency			Cost per Rider	$5.02
20 min		Weekdays	Subsidy per Rider	$3.84
40 min		Weekends	**Ridership**	
Average Speed		Peak Vehicles		
11 mph		5	Average Daily Passengers Weekday	1,941
On Time Performance			Average Daily Passengers Weekends	1,131
		89.0%	Annual Passengers	616,319
Route Total Bidirectional Length (miles)			Passengers per Hour	24.0
		19.3	Passengers per Mile	2.31
Annual Revenue Miles			Annual Wheelchair Boardings	4,792
		267,281	Annual Bicycle Boardings	20,864
Annual Revenue Hours			Population within .5 mi of stop	35,632
		25,674	Jobs within .5 mi of stop	12,274

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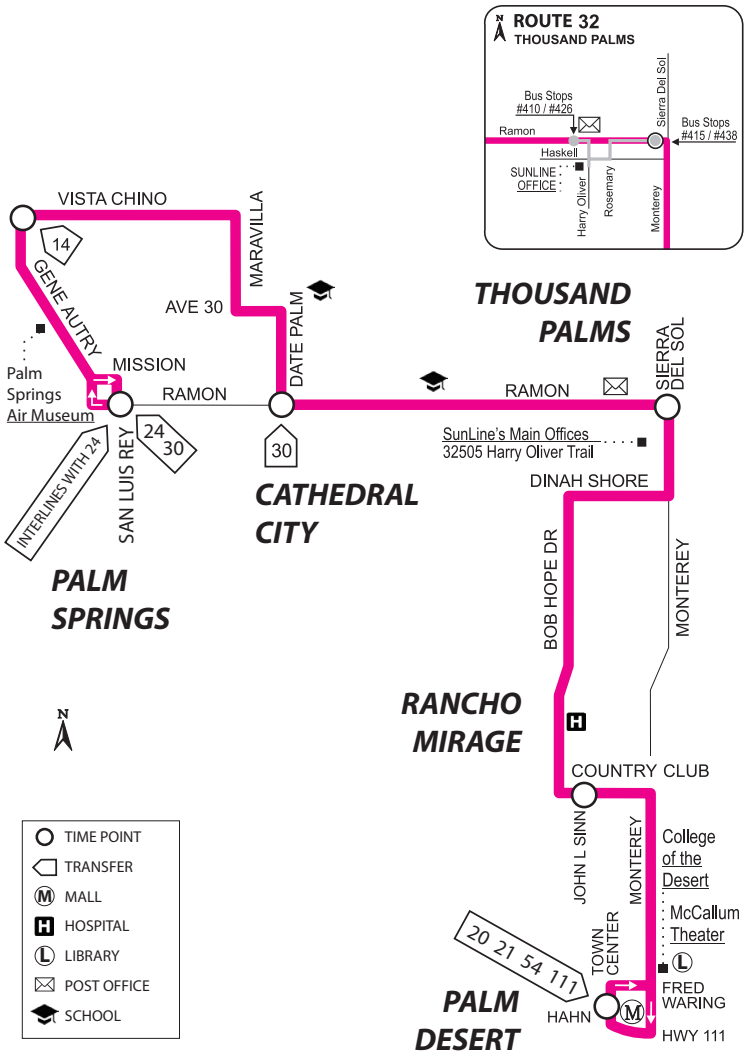
Route 32

Palm Springs – Cathedral City – Thousand Palms – Rancho Mirage – Palm Desert

Route 32 links Palm Springs, Cathedral City, the unincorporated community of Thousand Palms, Rancho Mirage, and Palm Desert. The route connects with Routes 14, 20, 21, 24, 30, 54, and 111. Riders can access schools and various retail centers along Ramon Road in Cathedral City. Routing through the I-10 interchange provides access to Costco, Home Depot, and the Regal Cinemas 16 theater complex, as well as service to the Agua Caliente Casino on Ramon Road at Bob Hope Drive. This route also provides service to Eisenhower Medical Center, College of the Desert, and Westfield Palm Desert Mall.



Hours of Operation		Service Span	Financial	
5:05 AM	10:40 PM	Weekdays	Annual Route Cost	$2,032,656
6:54 AM	10:48 PM	Weekends	Annual Farebox Route Revenue	$292,978
Frequency			Cost per Rider	$8.12
50 min		Weekdays	Subsidy per Rider	$6.95
60min		Weekends	**Ridership**	
Average Speed		Peak Vehicles		
17 mph		3	Average Daily Passengers Weekday	791
On Time Performance			Average Daily Passengers Weekends	452
		88.9%	Annual Passengers	250,298
Route Total Bidirectional Length (miles)			Passengers per Hour	14.8
		40.4	Passengers per Mile	0.9
Annual Revenue Miles			Annual Wheelchair Boardings	1,808
		279,553	Annual Bicycle Boardings	11,081
Annual Revenue Hours			Population within .5 mi of stop	37,340
		16,865	Jobs within .5 mi of stop	14,609

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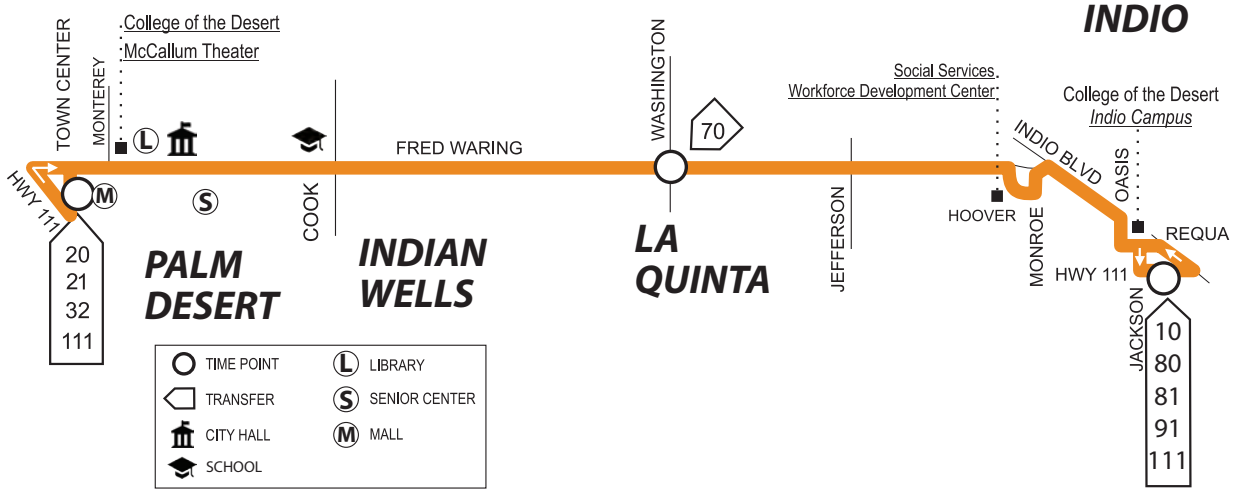
Route 54

Palm Desert – Indian Wells – La Quinta – Bermuda Dunes – Indio

Route 54 operates between Palm Desert and Indio, serving the cities of Indian Wells and La Quinta as well as the unincorporated community of Bermuda Dunes, via Fred Waring Drive. This route was designed to provide direct service between Palm Desert and Indio, in addition to serving the length of Fred Waring Drive. Service is provided to the Indio Workforce Development, College of the Desert (Indio and Palm Desert), McCallum Theater, Civic Center, and the Indian Wells Tennis Gardens. Route 54 connects with Routes 20, 21 32, 70, 80, 81, 91, 111, and 10 Commuter Link at Westfield Palm Desert Mall, Fred Waring at Washington, and Highway 111 at Flower.

Hours of Operation		Service Span	Financial	
5:55 AM	7:55 PM	Weekdays	Annual Route Cost	$812,514
		No weekend service	Annual Farebox Route Revenue	$91,889
Frequency			Cost per Rider	$10.24
45 min		Weekdays	Subsidy per Rider	$9.08
		No weekend service	Ridership	
Average Speed		Peak Vehicles		
17 mph		2	Average Daily Passengers Weekday	312
On Time Performance			Average Daily Passengers Weekends	N/A
		83.6%	Annual Passengers	79,314
Route Total Bidirectional Length (miles)			Passengers per Hour	11.8
		24.8	Passengers per Mile	0.7
Annual Revenue Miles			Annual Wheelchair Boardings	455
		113,483	Annual Bicycle Boardings	2,331
Annual Revenue Hours			Population within .5 mi of stop	38,468
		6,733	Jobs within .5 mi of stop	14,298



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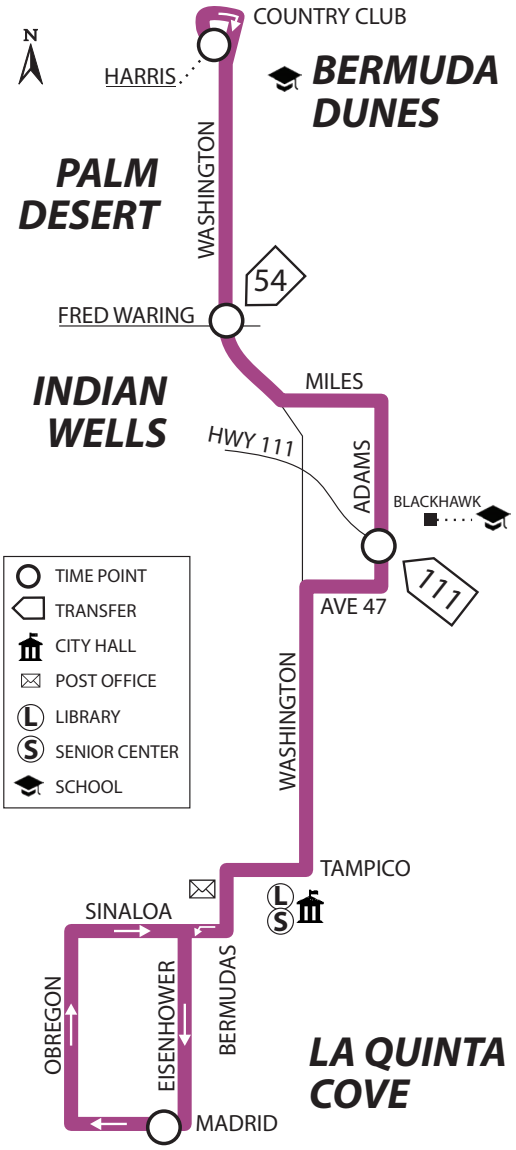
Route 70

La Quinta – Palm Desert – Indian Wells – Bermuda Dunes

Route 70 offers bus service to La Quinta and the edge of the cities of Palm Desert and Indian Wells and the unincorporated community of Bermuda Dunes. Riders are able to access the Indian Wells Tennis Gardens on Washington Street at Fred Waring Drive, city hall, the senior center, schools, and various shopping centers along Adams Street, Avenue 47, and Washington Street. Transfers from Route 70 to Route 111 can be made on Highway 111 at Adams Street and transfers from Route 70 to Route 54 can be made on Washington Street at Fred Waring Drive.



Hours of Operation		Service Span	Financial	
5:15 AM	8:45 PM	Weekdays	Annual Route Cost	$1,168,833
5:15 AM	9:28 PM	Weekends	Annual Farebox Route Revenue	$189,151
Frequency			Cost per Rider	$7.16
45 min		Weekdays	Subsidy per Rider	$6.00
90 min		Weekends	Ridership	
Average Speed		Peak Vehicles		
13 mph		3	Average Daily Passengers Weekday	554
On Time Performance			Average Daily Passengers Weekends	207
		91.0%	Annual Passengers	163,252
Route Total Bidirectional Length (miles)			Passengers per Hour	16.9
		19.5	Passengers per Mile	1.3
Annual Revenue Miles			Annual Wheelchair Boardings	507
		129,249	Annual Bicycle Boardings	7,550
Annual Revenue Hours			Population within .5 mi of stop	29,299
		9,687	Jobs within .5 mi of stop	5,958

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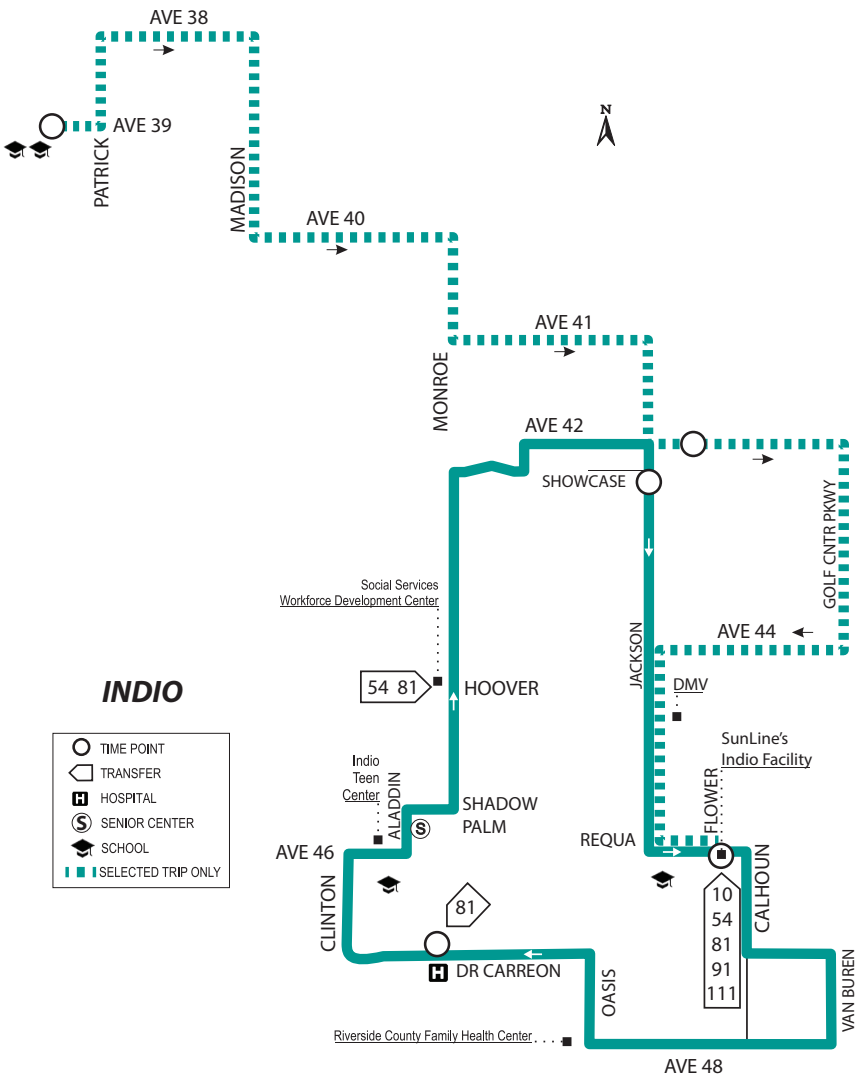
Route 80

Indio

Route 80 operates in a clockwise loop serving residents of Indio, providing access to John F. Kennedy Memorial Hospital, Riverside County Fair and National Date Festival, Social Security Administration, Employment Development Department, Indio Senior Center, Boys and Girls Club, Riverside County Social Services Offices, Department of Motor Vehicles, Martha's Village & Kitchen, community centers, schools, and shopping centers. Three afternoon trips to Shadow Hills High School on Jefferson Street at Avenue 39 are provided.

Route 80 connects to Routes 54, 81, 90, 91, 10 Commuter Link, and 111 at the transfer location on Highway 111 at Flower Street.



Hours of Operation		Service Span	Financial	
6:00 AM	8:45 PM	Weekdays	Annual Route Cost	$1,093,403
6:00 AM	8:45 PM	Weekends	Annual Farebox Route Revenue	$237,025
Frequency			Cost per Rider	$5.37
30 min		Weekdays	Subsidy per Rider	$4.21
60 min		Weekends	**Ridership**	
Average Speed		Peak Vehicles		
12 mph		5	Average Daily Passengers Weekday	684
On Time Performance			Average Daily Passengers Weekends	275
		89.8%	Annual Passengers	203,664
Route Total Bidirectional Length (miles)			Passengers per Hour	22.5
		11.02	Passengers per Mile	1.9
Annual Revenue Miles			Annual Wheelchair Boardings	1,819
		105,020	Annual Bicycle Boardings	4,028
Annual Revenue Hours			Population within .5 mi of stop	46,613
		9,061	Jobs within .5 mi of stop	10,514

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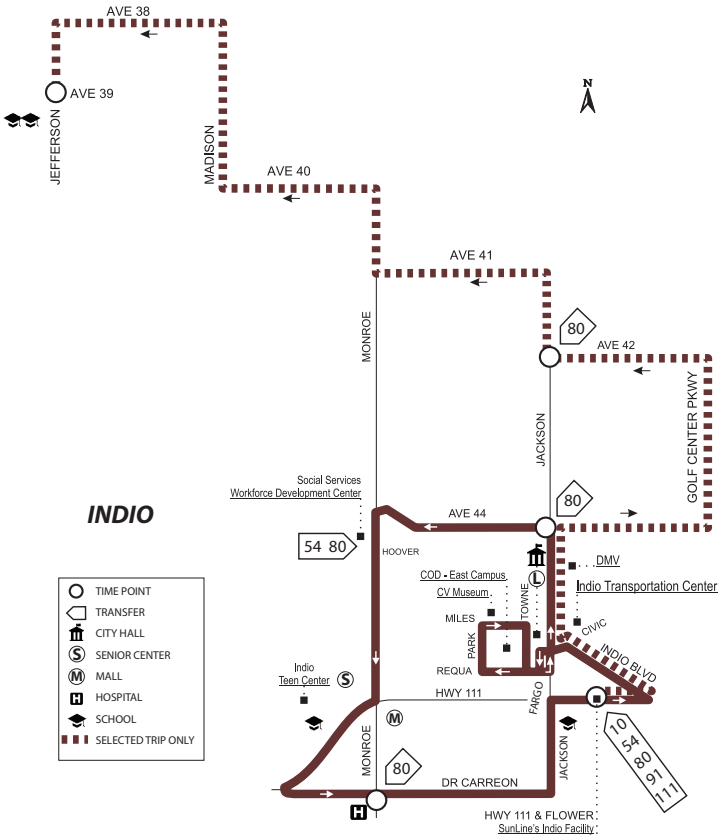
Route 81

Indio

Route 81 is a loop route that operates counter-clockwise and provides transit service to residents of Indio, enabling passenger access to John F. Kennedy Memorial Hospital, Riverside County Fair and National Date Festival, Employment Development Department, Social Security Administration, College of the Desert–Indio campus, Riverside County social services offices, Department of Motor Vehicles, Coachella Valley Cultural Museum, the Indio transportation center, community centers, library, schools, and shopping centers. Three morning trips to Shadow Hills High School on Jefferson Street at Avenue 39 are provided.

Route 81 connects to Routes 54, 80, 91, 111, and 10 Commuter Link at the transfer location on Highway 111 at Flower Street.



Hours of Operation		Service Span	Financial	
5:25 AM	8:15 PM	Weekdays	Annual Route Cost	$682,616
5:25 AM	8:15 PM	Weekends	Annual Farebox Route Revenue	$103,584
Frequency			Cost per Rider	$7.69
60 min		Weekdays	Subsidy per Rider	$6.52
60 min		Weekends	**Ridership**	
Average Speed		Peak Vehicles		
10 mph		4	Average Daily Passengers Weekday	298
On Time Performance			Average Daily Passengers Weekends	119
		90.6%	Annual Passengers	88,736
Route Total Bidirectional Length (miles)			Passengers per Hour	15.7
		8.71	Passengers per Mile	1.7
Annual Revenue Miles			Annual Wheelchair Boardings	603
		53,409	Annual Bicycle Boardings	974
Annual Revenue Hours			Population within .5 mi of stop	30,954
		5,660	Jobs within .5 mi of stop	8,085

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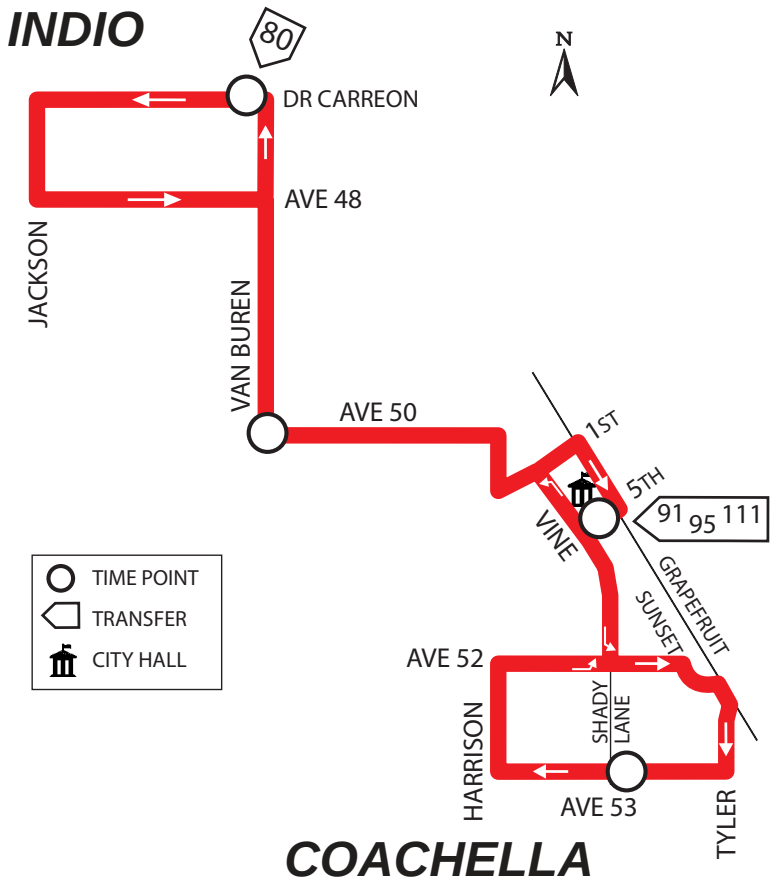
Route 90

Indio – Coachella

Route 90 serves the cities of Coachella and Indio, allowing passengers to access the Employment Development Department, Coachella City Hall, library, senior center, Boys & Girls Club, local schools, and shopping centers. Connections to Routes 80, 91, 95, and 111 occur at the transfer location on 5th Street at Vine Avenue in Coachella and on Doctor Carreon Boulevard at Van Buren Street in Indio.



Hours of Operation		Service Span	Financial	
5:00 AM	9:52 PM	Weekdays	Annual Route Cost	$724,425
5:00 AM	8:52 PM	Weekends	Annual Farebox Route Revenue	$85,750
Frequency			Cost per Rider	$9.94
60 min		Weekdays	Subsidy per Rider	$8.76
60 min		Weekends	Ridership	
Average Speed		Peak Vehicles		
13 mph		1	Average Daily Passengers Weekday	214
On Time Performance			Average Daily Passengers Weekends	170
		92.3%	Annual Passengers	72,872
Route Total Bidirectional Length (miles)			Passengers per Hour	12.1
		12.96	Passengers per Mile	0.9
Annual Revenue Miles			Annual Wheelchair Boardings	624
		78,800	Annual Bicycle Boardings	1,339
Annual Revenue Hours			Population within .5 mi of stop	40,099
		6,012	Jobs within .5 mi of stop	5,865

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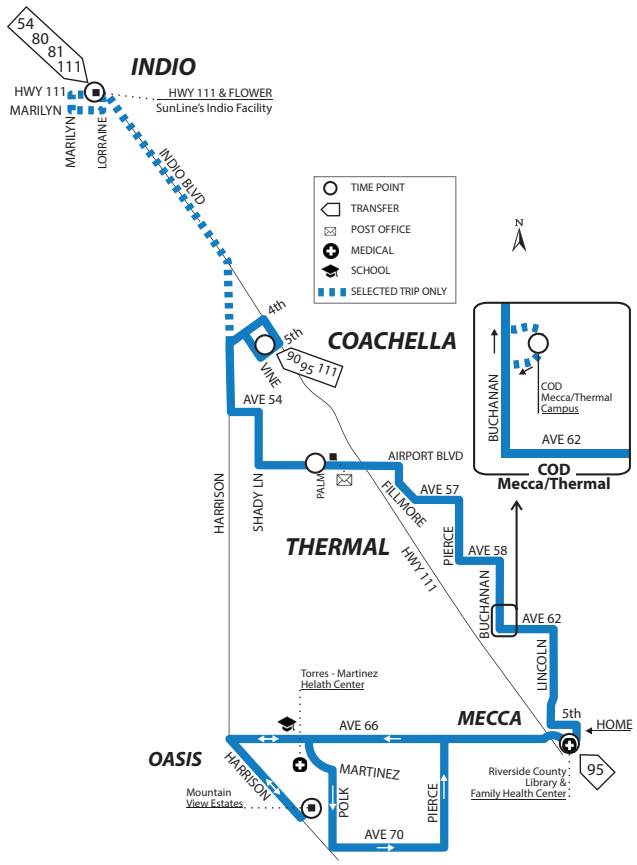
Route 91

Indio – Coachella – Thermal – Mecca – Oasis

Route 91 links Indio and Coachella with the unincorporated communities of Thermal, Mecca, and Oasis. Riders on Route 91 are able to connect to Routes 54, 80, 81, 90, 95, 10 Commuter Link, and 111 at the transfer location on 5th Street and Vine Avenue in Coachella and on Highway 111 and Flower Street in Indio. Passengers have access to employment sites, medical facilities, and shopping centers. Route 91 provides direct service to College of the Desert's East Valley Campus in Mecca. Route 91 also provides selected early, midday, and late night trips to Highway 111 and Flower to meet passenger demand in this area.



Hours of Operation		Service Span	Financial	
4:48 AM	10:20 PM	Weekdays	Annual Route Cost	$2,082,181
5:30 AM	10:40 PM	Weekends	Annual Farebox Route Revenue	$182,625
Frequency			Cost per Rider	$13.26
60 min		Weekdays	Subsidy per Rider	$12.10
60 min		Weekends	Ridership	
Average Speed		Peak Vehicles		
19 mph		3	Average Daily Passengers Weekday	503
On Time Performance			Average Daily Passengers Weekends	270
		89.8%	Annual Passengers	157,058
Route Total Bidirectional Length (miles)			Passengers per Hour	9.1
		51.11	Passengers per Mile	0.5
Annual Revenue Miles			Annual Wheelchair Boardings	384
		315,323	Annual Bicycle Boardings	2,618
Annual Revenue Hours			Population within .5 mi of stop	31,866
		17,279	Jobs within .5 mi of stop	5,662

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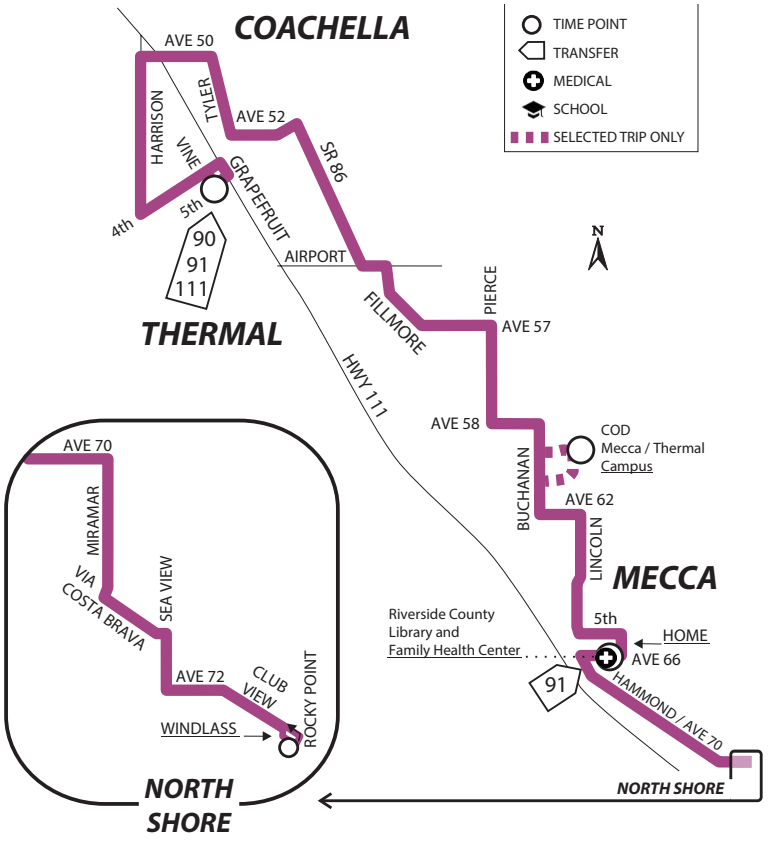
Route 95

Coachella – Mecca – North Shore

Route 95 serves Coachella and the unincorporated communities of Mecca and North Shore. Route 95 serves the College of the Desert's East Valley Campus in Mecca. Passengers on Route 95 are able to connect to Routes 90, 91, and 111 at the transfer location on 5th Street and Vine Avenue in Coachella. Service allows passengers to access employment sites, medical facilities, and shopping centers.



Hours of Operation		Service Span	Financial	
4:15 AM	10:00 PM	Weekdays	Annual Route Cost	$764,117
4:15 AM	10:00 PM	Weekends	Annual Farebox Route Revenue	$34,036
Frequency			Cost per Rider	$26.50
180 min		Weekdays	Subsidy per Rider	$25.32
180 min		Weekends	Ridership	
Average Speed		Peak Vehicles		
19 mph		1	Average Daily Passengers Weekday	85
On Time Performance			Average Daily Passengers Weekends	65
		87.4%	Annual Passengers	28,840
Route Total Bidirectional Length (miles)			Passengers per Hour	4.5
		52.49	Passengers per Mile	0.2
Annual Revenue Miles			Annual Wheelchair Boardings	130
		115,773	Annual Bicycle Boardings	788
Annual Revenue Hours			Population within .5 mi of stop	18,910
		6,390	Jobs within .5 mi of stop	1,960

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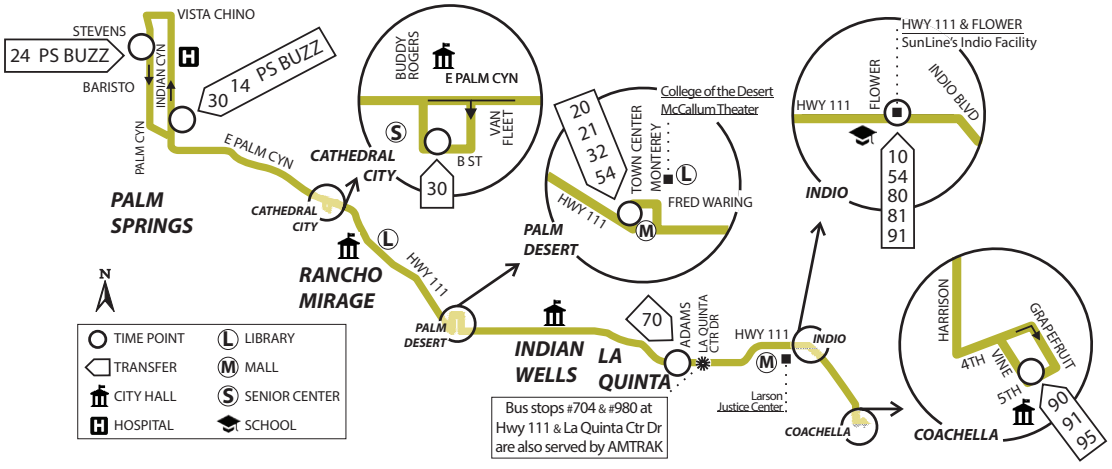
Route 111

Palm Springs – Cathedral City – Rancho Mirage – Palm Desert – Indian Wells – La Quinta – Indio – Coachella

Route 111 is SunLine's highest ridership trunk route. Route 111 provides service along Highway 111 from Palm Springs to Coachella, linking with the cities of Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, and Indio. Route 111 enables riders to travel to destinations along the Highway 111 corridor. The route links passengers with major retail and commercial centers, recreational attractions, museums, and educational and medical institutions. Connecting routes include Routes 14, 20, 21, 24, 30, 32, 54, 70, 80, 81, 90, 91, 95, Palm Springs BUZZ, and 10 Commuter Link at transfer locations at Westfield Palm Desert Mall, 5th Street at Vine Avenue, Highway 111 at Flower Street, Highway 111 at Adams Street, B Street at Buddy Rogers Avenue, Indian Canyon Drive at Ramon Road, and Palm Canyon Drive at Stevens Road. The most recent Operational Analysis proposed a 15-minute frequency for this trunk route. Frequency changes are under study and are subject to available funding and Board approval.

Hours of Operation		Service Span	Financial	
5:00 AM	11:05 PM	Weekdays	Annual Route Cost	$8,171,197
5:30 AM	11:05 PM	Weekends	Annual Farebox Route Revenue	$1,656,347
Frequency			Cost per Rider	$5.78
20/30 min		Weekdays (peak/off-peak)	Subsidy per Rider	$4.61
20/30 min		Weekends	Ridership	
Average Speed		Peak Vehicles		
15 mph		14	Average Daily Passengers Weekday	4,219
On Time Performance			Average Daily Passengers Weekends	3,131
		81.2%	Annual Passengers	1,412,920
Route Total Bidirectional Length (miles)			Passengers per Hour	20.8
		60.0	Passengers per Mile	1.4
Annual Revenue Miles			Annual Wheelchair Boardings	10,739
		1,006,510	Annual Bicycle Boardings	58,828
Annual Revenue Hours			Population within .5 mi of stop	80,134
		67,814	Jobs within .5 mi of stop	36,698



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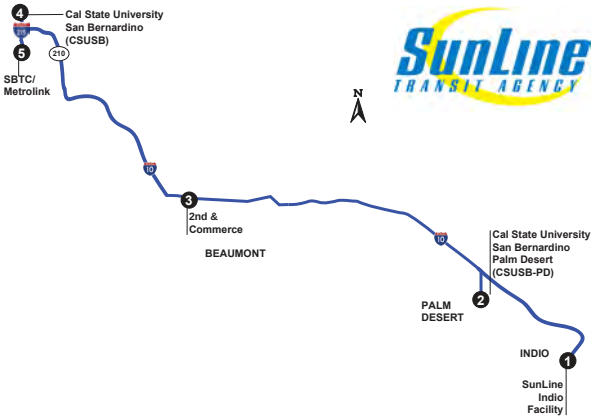
10 Commuter Link

Indio – Palm Desert – Beaumont – San Bernardino

The 10 Commuter Link provides service between the Coachella Valley and San Bernardino. The route is 92 miles, with two stops in the Coachella Valley at the SunLine Indio facility and the California State University, San Bernardino – Palm Desert Campus. The route continues, stopping in Beaumont at 2nd Street and Commerce Way, California State University, San Bernardino main campus, and at the San Bernardino Transit Center and Metrolink station. Compared to the Riverside station, more than twice the number of trains serve the San Bernardino station.

At the Beaumont bus stop, passengers will be able access buses connecting to Cabazon, University of California, Riverside, Riverside University Health Center, Kaiser Hospital, VA Hospital, Loma Linda Medical Center, and numerous destinations served by RTA, Beaumont Transit, and Banning Transit. The Beaumont bus stop is not a timed transfer point for SunLine's 10 Commuter Link because of unpredictable freeway travel time variability. However, with the use of real-time passenger information, passengers traveling between any of the above-mentioned destinations can transfer between SunLine, RTA, Beaumont Transit, and Banning Transit routes if the timing is right. Passengers can also use a transportation network service such as Lyft or Uber, taxi service, a bicycle, or some other mode for a faster trip to those respective destinations.

The 10 Commuter Link bus stop in Beaumont also enables residents of the PASS area, San Jacinto, Hemet, and Moreno Valley to travel to California State University, San Bernardino and University of California, Riverside – Palm Desert Campuses, and other employment centers in Coachella Valley.



Hours of Operation		Service Span	Financial	
5:20 AM	8:00 PM	Weekdays	Annual Route Cost	N/A
		No weekend service	Annual Farebox Route Revenue	N/A
Frequency			Cost per Rider	N/A
8 trips		Weekdays	Subsidy per Rider	N/A
		No weekend service	**Ridership**	
Average Speed		Peak Vehicles		
46 mph		2	Average Daily Passengers Weekday	N/A
On Time Performance			Average Daily Passengers Weekends	N/A
		N/A	Annual Passengers	N/A
Route Total Bidirectional Length (miles)			Passengers per Hour	N/A
		183.9	Passengers per Mile	N/A
Annual Revenue Miles			Annual Wheelchair Boardings	N/A
		191,556	Annual Bicycle Boardings	N/A
Annual Revenue Hours			Population within .5 mi of stop	5,759
		5,915	Jobs within .5 mi of stop	2,177

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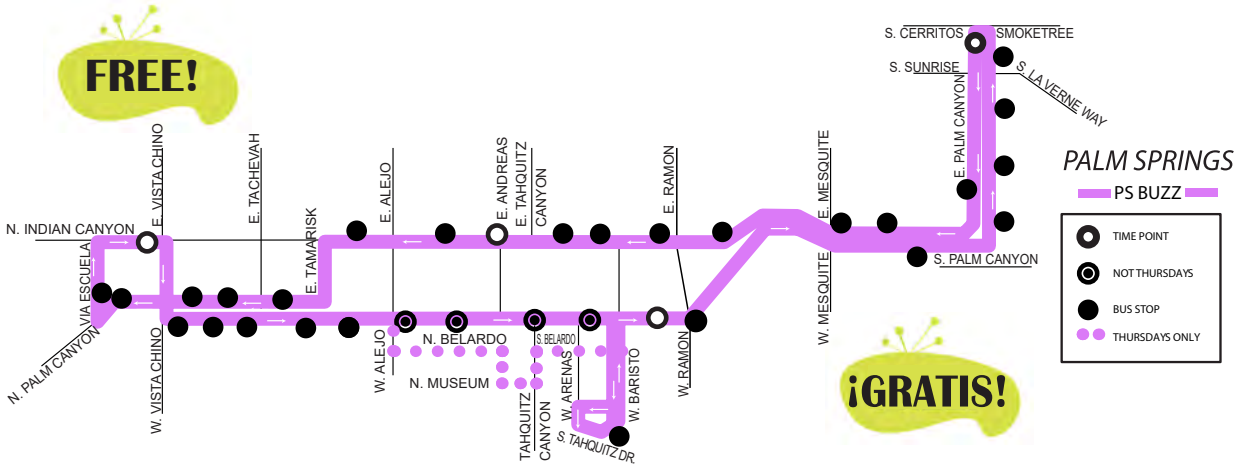
Route Palm Springs BUZZ

Palm Springs

Palm Springs BUZZ offers free service in Palm Springs with connections to Routes 14, 24, 30, and 111 at transfer locations at Indian Canyon Drive at Ramon Road and Palm Canyon Drive at Stevens Road. The Palm Springs BUZZ links riders to hotels, shopping, entertainment, and restaurant destinations. The Palm Springs BUZZ route currently has service from Thursday through Saturday with hours of operation from midday to late evening. BUZZ service will be discontinued in January 2021 due to a funding shortfall stemming from the COVID-19 crisis.

Hours of Operation		Service Span	Financial	
12:00 PM	10:10 PM	Thu-Sat	Annual Route Cost	$272,108
			Annual Farebox Route Revenue	$38,188
Frequency			Cost per Rider	$8.13
20 min		Thu-Sat	Subsidy per Rider	$6.99
Average Speed		Peak Vehicles	Ridership	
10 mph		3	Average Daily Passengers Weekday	472
On Time Performance			Average Daily Passengers Weekends	395
		N/A	Annual Passengers	33,475
Route Total Bidirectional Length (miles)			Passengers per Hour	15.1
		50.0	Passengers per Mile	1.5
Annual Revenue Miles			Annual Wheelchair Boardings	8
		22,623	Annual Bicycle Boardings	-
Annual Revenue Hours			Population within .5 mi of stop	11,561
		2,224	Jobs within .5 mi of stop	8,034



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Appendix B: Refueled Route Profiles

SunLine Refueled is a long-term vision to enhance local bus service. It will be implemented as new and sustainable funding sources are identified as regional population grows. To support this long-term vision, planning for transit-supportive land uses and access to the regional non-motorized trail system needs to start now through a collaborative regional planning process.

This redesign plan consolidates SunLine's existing 15 routes into 9 routes supplemented by microtransit service. While implementation of these recommendations is contingent on transit demand and recovery from the COVID-19 pandemic, this streamlined route system can help capture new riders and expand transit market share.

Route 111X

Faster trips and more frequent service are top improvement priorities for SunLine customers. The purpose of Route 111X is to provide faster travel times between key stops and one additional weekday trip per hour in the corridor.

Route 111X will provide more rapid service with limited stops along the existing Route 111. Route 111X will operate along Highway 111, originating in Palm Springs and ending in Indio. The bus will travel along Highway 111 for a majority of the route and only deviate twice—to provide service to the bus stop at B Street at Buddy Rogers and the bus turns and to operate along Fred Waring Drive to provide service to an already established bus stop and a high-density area.

In the short term, Route 111X will provide more rapid service between key stops along the existing Highway 111. This will reduce travel times for customers riding long distances through the SunLine system. Over the long term, this service may lay the groundwork for regional bus rapid transit service in the corridor. Improved bus stop amenities, TSP, and queue jumps will improve the rider experience and reliability.

Route and Stop Locations

The service should run on the following streets:

- **Highway 111:** Golf Center Parkway to Washington Street
- **Washington Street:** Highway 111 to Fred Waring Drive
- **Fred Waring Drive:** Washington Street to Highway 111
- **Highway 111:** Fred Waring Drive to Gene Autry Trail
- **Highway 111B (Palm Canyon Drive):** Gene Autry Trail to Ramon Road

There are five proposed stops for Route 111X. These stops were chosen based on both location and ridership. The stops are:

- South Palm Canyon at Ramon (Palm Springs)
- B Street at Buddy Rogers (Cathedral City)
- Fred Waring at Monterey (Palm Desert)
- Highway 111 at Adams (La Quinta)
- Highway 111 at Golf Center (Indio)

Description	New Express Service
Implementation	January 2021
Weekday frequency (mins)	60
Peak service hours	12
Off-peak service hours	0
Weekend frequency	0
Peak buses (number)	3
Annual revenue miles	139,150
Annual revenue hours	7,130

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Route 111

During the Phase I transition to the Refueled transit network, this route would be unchanged. During the Phase II service enhancement phase, Route 111 frequencies would improve to 20 minutes all day during weekdays. On the weekends, it would operate every 20 minutes.

Description	Baseline Existing Route 111	Phase I No change from existing service	Phase II Phase I plus 20-minute all-day weekday service
Weekday			
Peak frequency	20	20	20
Peak service hours	13	13	16
Off-peak frequency (mins)	30	30	0
Off-peak service hours	3	3	0
Weekend			
Frequency	20	20	20
Service hours	16	16	16
Service Summary			
Peak buses	14	14	14
Change from previous	–	0	0
Annual revenue miles	1,006,510	1,006,510	1,006,510
Change from previous	–	0	87,300
Annual revenue hours	67,814	67,814	72,820
Change from previous	–	0	5,006

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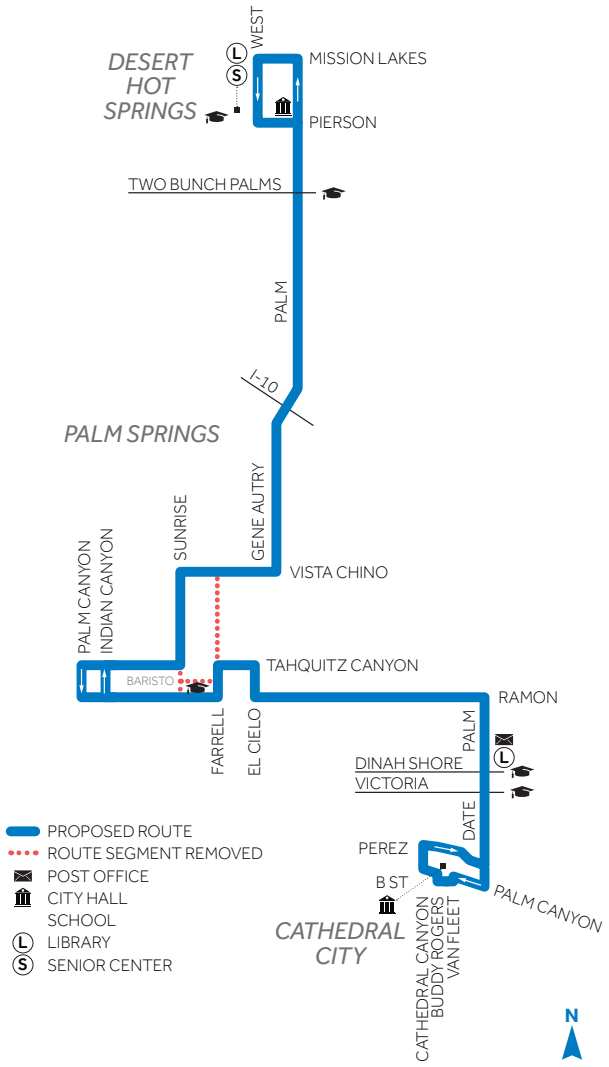
Route 2

In the Phase I transition to the Refueled transit network, combine existing Routes 14 and 30 between Desert Hot Springs and Cathedral City into one route and maintain existing frequencies. This new Route 2 is realigned in downtown Palm Springs. This realignment may require adding and removing bus stops.

During the Phase II service enhancement phase, improve frequencies to every 15 minutes during morning and afternoon peak periods and every 20 minutes during off-peak midday and night periods. On weekends, Route 2 would operate every 40 minutes.

Route 2 eliminates the transfer for travel between Desert Hot Springs, Palm Springs, and Cathedral City. It serves more transit-supportive land uses and connects to Route 111, Route 3, and Route 4.



Description	Baseline Existing Route 14 and Route 30	Phase I Implement Route 2 with 20-minute peak, 40-minute off-peak weekday, and 40-minute weekend service	Phase II Phase I plus 15-minute peak service and 20-minute off-peak weekday service
Weekday			
Peak frequency	20	20	15
Peak service hours	12	12	6
Off-peak frequency (mins)	40	40	20
Off-peak service hours	6	6	12
Weekend			
Frequency	40	40	40
Service hours	17	17	17
Service Summary			
Peak buses	11	11	15
Change from previous	–	11	4
Annual revenue miles	696,583	664,920	840,490
Change from previous	–	-31,663	175,570
Annual revenue hours	53,670	50,380	63,680
Change from previous	–	-3,290	13,300

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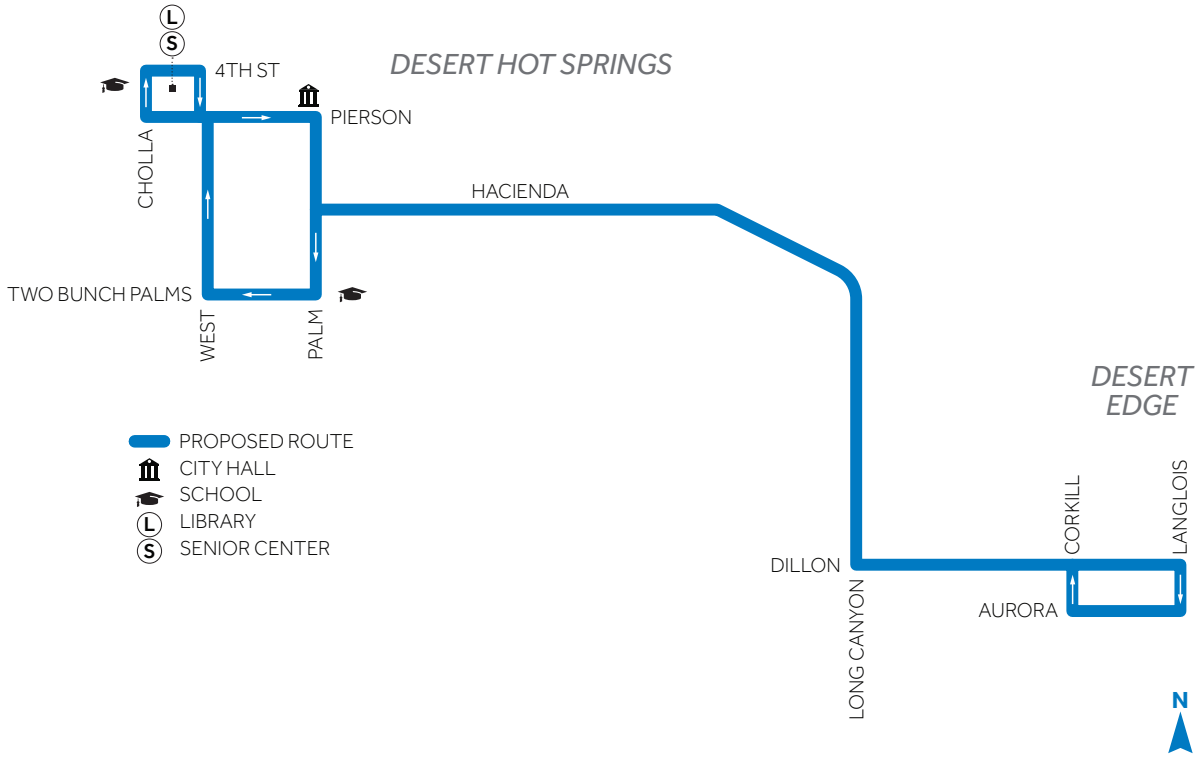
Route 3

In Phase I, rename existing Route 15 to Route 3. In Phase II, improve peak weekday frequencies to 30 minutes. During the weekday off-peak midday and night periods, Route 3 would operate every 60 minutes. On weekends, it would operate every 60 minutes. This route will continue to serve Desert Edge and Desert Hot Springs and will connect to Route 2.

Description	Baseline Existing Route 15	Phase I No change to baseline	Phase II Phase I plus 30-minute weekday peak
Weekday			
Peak frequency	60	60	30
Peak service hours	12	12	6
Off-peak frequency (mins)	60	60	60
Off-peak service hours	6	6	12
Weekend			
Frequency	60	60	60
Service hours	14	14	14
Service Summary			
Peak buses	1	1	2
Change from previous	–	0	1
Annual revenue miles	87,484	87,484	121,760
Change from previous	–	0	34,276
Annual revenue hours	5,448	5,448	7,370
Change from previous	–	0	1,922



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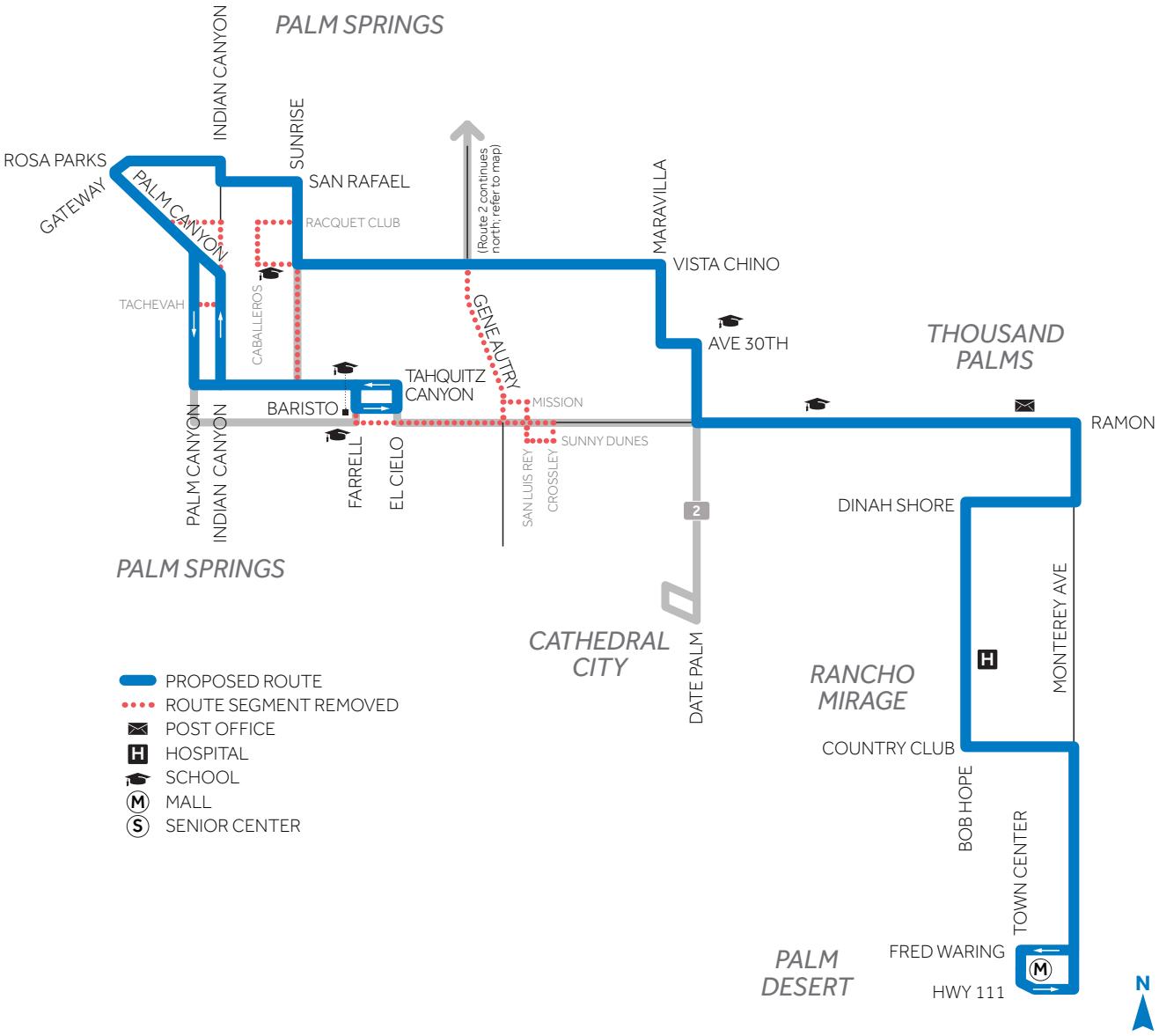
Route 4

In Phase I, combine and rename existing Routes 24 and 32 to connect Palm Springs with Palm Desert Town Center Mall. Route 4 would create direct service between North Palm Springs and downtown Palm Springs. It would eliminate transfers to Thousand Palms. This realignment may require adding and removing bus stops. In Phase II, improve service headways to 30 minutes during morning and afternoon peak periods.

Description	Baseline Existing Route 24 and Route 32	Phase I Implement Route 4 with 40-minute weekday and 60-minute weekend service	Phase II Phase I plus 30-minute weekday peak service
Weekday			
Peak frequency	40	40	30
Peak service hours	17	17	6
Off-peak frequency (mins)	0	0	40
Off-peak service hours	0	0	11
Weekend			
Frequency	60	60	60
Service hours	15	15	15
Service Summary			
Peak buses	8	6	8
Change from previous	–	-2	2
Annual revenue miles	451,019	451,019	491,800
Change from previous	–	6,131	6,131
Annual revenue hours	29,625	29,625	34,820
Change from previous	–	2,735	2,460


PALM SPRINGS
INDIAN CANYON
SUNRISE
ROSA PARKS
GATEWAY
PALM CANYON
SAN RAFAEL
RACQUET CLUB
(Route 2 continues north; refer to map)
MARAVILLA
VISTA CHINO
TACHEVAH
CABALLEROS
GENE AUTRY
AVE 30TH
THOUSAND PALMS
TAHQUITZ CANYON
BARISTO
MISSION
RAMON
SUNNY DUNES
PALM CANYON
INDIAN CANYON
FARRELL
EL CIELO
SAN LUIS REY
CROSSLEY
2
DINAH SHORE
PALM SPRINGS
CATHEDRAL CITY
DATE PALM
RANCHO MIRAGE
MONTEREY AVE
COUNTRY CLUB
BOB HOPE
TOWN CENTER
FRED WARING
HWY 111
PALM DESERT
PROPOSED ROUTE
ROUTE SEGMENT REMOVED
POST OFFICE
HOSPITAL
SCHOOL
MALL
SENIOR CENTER
N

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Route 5

During Phase I implementation, combine existing Routes 20 and 21 to provide 60-minute weekday peak express service between Desert Hot Springs and Palm Desert Town Center Mall. In Phase II, improve Route 5 service frequencies to provide 40-minute weekday peak express service. This route serves the California State University, San Bernardino – Palm Desert Campus and connects to Route 111.

Description	Baseline Existing Route 20 and Route 21	Phase I Implement Route 5 with 60-minute weekday peak service	Phase II Phase I plus 40-minute weekday service
Weekday			
Peak frequency	60	60	40
Peak service hours	6	6	6
Off-peak frequency (mins)	0	0	0
Off-peak service hours	0	0	0
Weekend			
Frequency	0	0	0
Service hours	0	0	0
Service Summary			
Peak buses	3	3	4
Change from previous	–	0	1
Annual revenue miles	103,171	73,180	109,770
Change from previous	–	29,991	36,590
Annual revenue hours	4,916	4,916	5,420
Change from previous	–	-1,306	1,810

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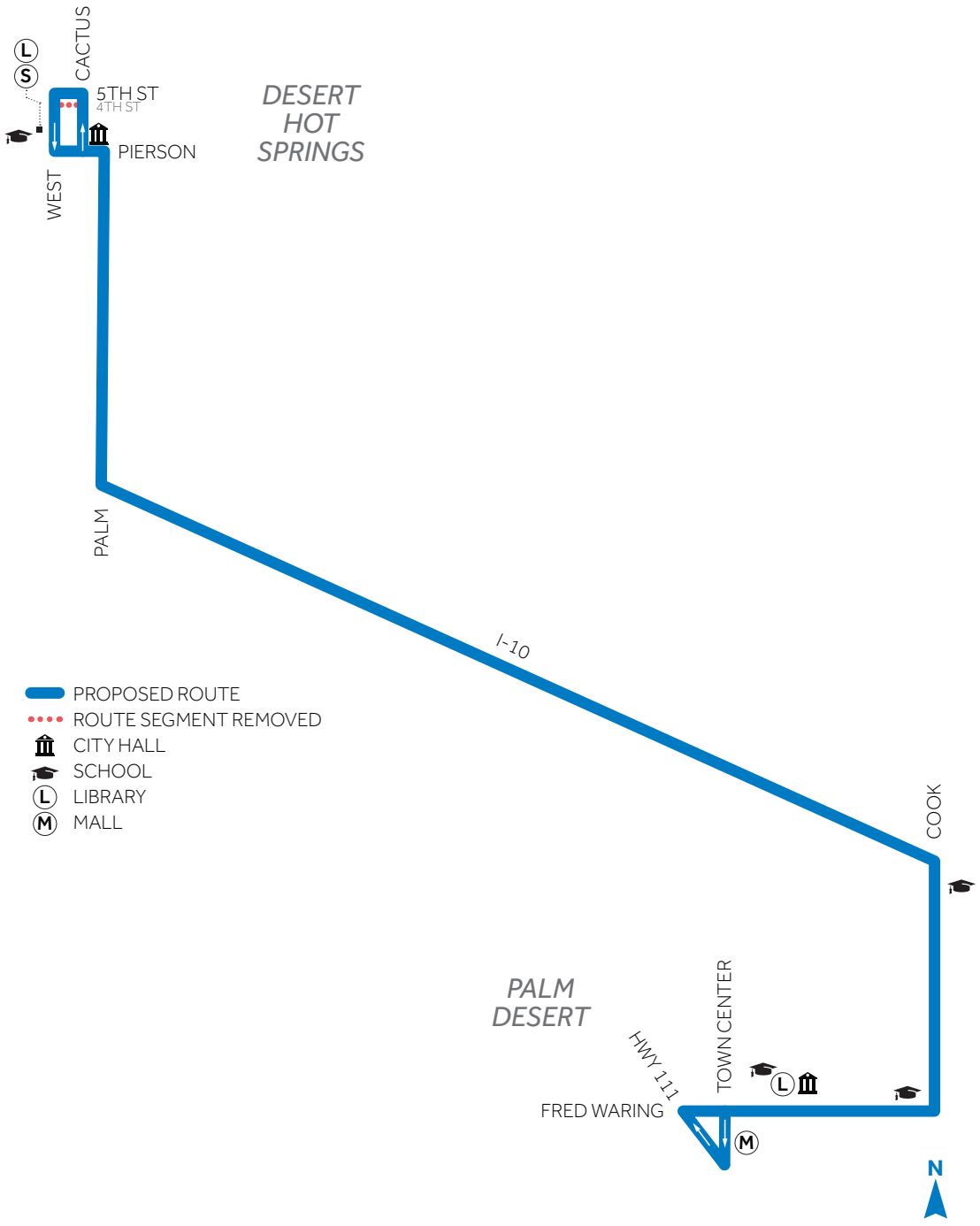
L
S
CACTUS
5TH ST
4TH ST
PIERSON
WEST
DESERT HOT SPRINGS
PALM
I-10
COOK
PALM DESERT
HWY 111
TOWN CENTER
FRED WARING
L
M
N
PROPOSED ROUTE
ROUTE SEGMENT REMOVED
CITY HALL
SCHOOL
LIBRARY
MALL

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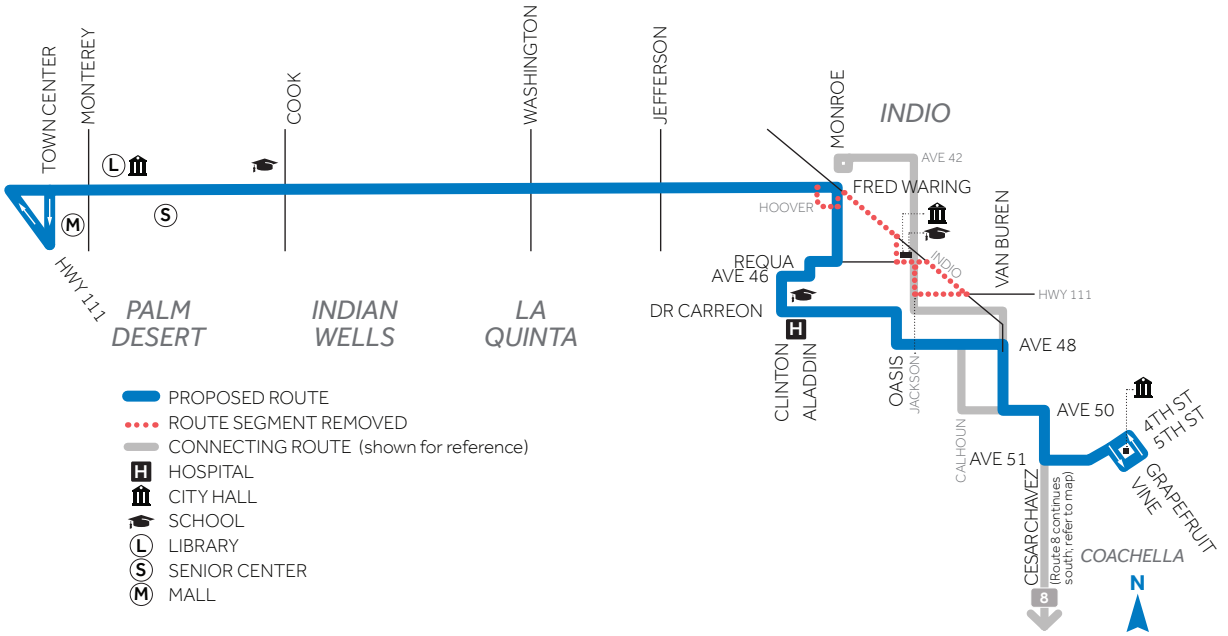
Route 6

In the Phase I transition to the Refueled transit network, extend existing Route 54 to 5th Street in Coachella to create the new Route 6 as part of a simplified network in Indio and Coachella. This route extension may require adding and removing bus stops. Service headways would change in Phase II with 30-minute headways during morning and afternoon weekdays. There would be no weekend service. Route 6 connects multiple communities and reduces transfers. It connects to Route 111 and Route 8.

Description	Baseline Existing Route 54	Phase I Implement Route 6 with 45-minute weekday service	Phase II Phase I plus 30-minute weekday peak service
Weekday			
Peak frequency	45	45	30
Peak service hours	14	14	6
Off-peak frequency (mins)	0	0	45
Off-peak service hours	0	0	8
Weekend			
Frequency	0	0	0
Service hours	0	0	0
Service Summary			
Peak buses	2	4	5
Change from previous	–	2	1
Annual revenue miles	113,483	171,950	208,150
Change from previous	–	58,467	36,200
Annual revenue hours	6,733	11,600	14,050
Change from previous	–	4,867	2,450



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Route 7

In Phase I, existing Route 70 would be maintained in the Refueled transit system as Route 7. In Phase II, service headways would improve to every 30 minutes during morning and afternoon peak periods. On weekends, it would operate every 90 minutes. Route 7 provides local bus connectivity and coverage to La Quinta, Palm Desert, Indian Wells, and Bermuda Dunes. It connects to Route 111 and Route 6.

Description	Baseline Existing Route 70	Phase I Baseline service	Phase II Phase I plus weekday 30-minute peak service
Weekday			
Peak frequency	45	45	30
Peak service hours	16	16	6
Off-peak frequency (mins)	0	0	45
Off-peak service hours	0	0	10
Weekend			
Frequency	90	90	90
Service hours	17	17	17
Service Summary			
Peak buses	3	3	3
Change from previous	–	0	0
Annual revenue miles	129,249	129,249	153,830
Change from previous	–	0	24,581
Annual revenue hours	9,687	9,687	11,050
Change from previous	–	0	1,363

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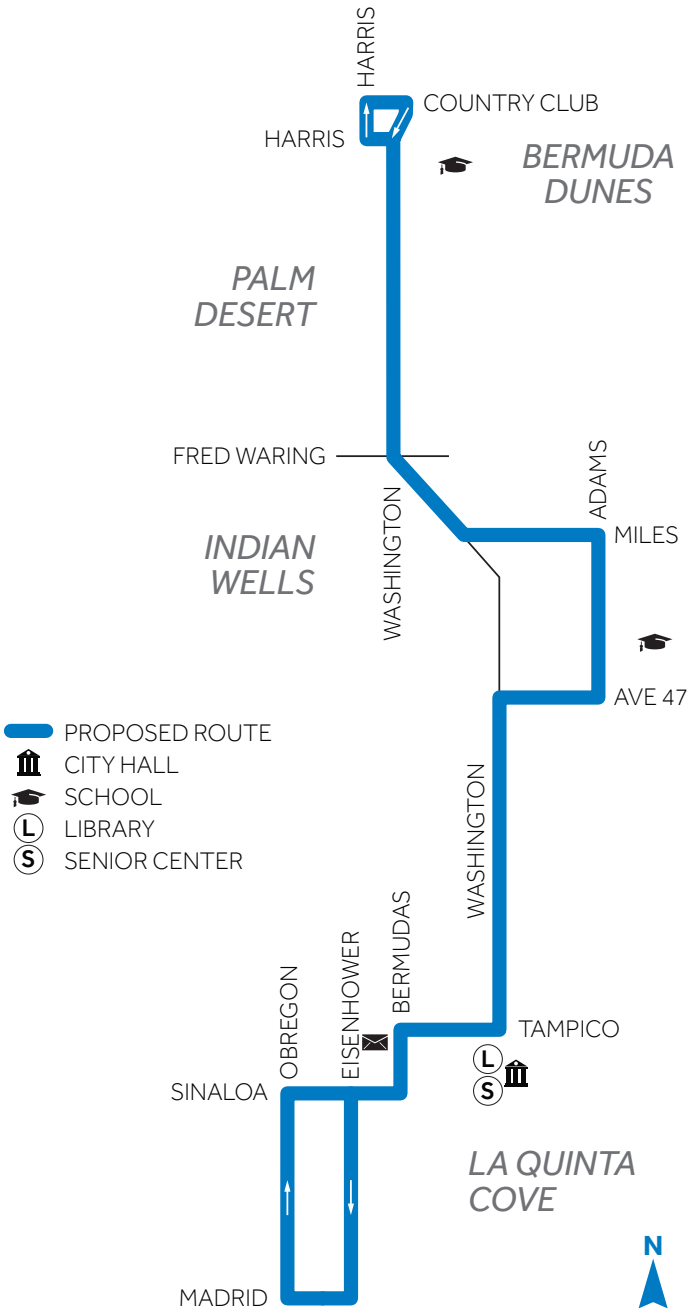
HARRIS
COUNTRY CLUB
HARRIS
BERMUDA DUNES
PALM DESERT
FRED WARING
WASHINGTON
ADAMS
MILES
INDIAN WELLS
AVE 47
WASHINGTON
BERMUDAS
EISENHOWER
OBREGON
TAMPICO
SINALOA
LA QUINTA COVE
MADRID
N
PROPOSED ROUTE
CITY HALL
SCHOOL
LIBRARY
SENIOR CENTER

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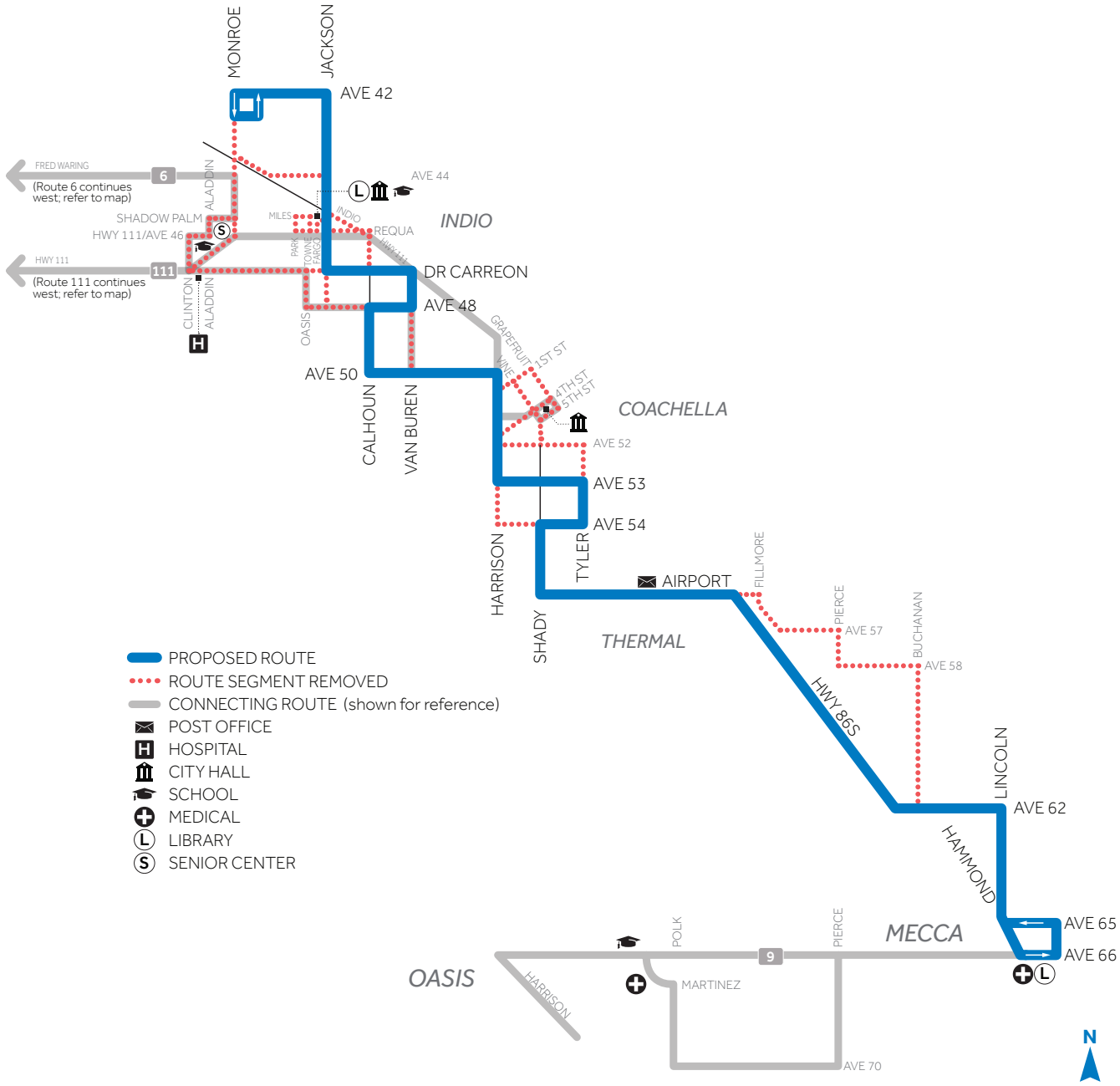
Route 8

For the Phase I transition to Refueled, combine portions of existing Routes 80, 81, 90, and 91 in Indio, Coachella, Thermal, and Mecca to improve operational efficiency and route directness and to make SunLine's system easier to navigate. This new route may require adding and removing bus stops. Phase I service would be implemented with 40-minute weekday service. On weekends, it would operate every 60 minutes. In Phase II, service headways would improve to every 40 minutes on weekends. Route 8 would connect to Route 111, Route 6, and Route 9. It would reduce the need to transfer for travel between Mecca, Coachella, Thermal, and Indio.

Description	Baseline Existing Routes 81, 90, 91, and 95	Phase I Implement Route 8 with 40-minute weekday service	Phase II Phase I plus 40-minute weekend service
Weekday			
Peak frequency	60	40	40
Peak service hours	18	18	18
Off-peak frequency (mins)	0	0	0
Off-peak service hours	0	0	0
Weekend			
Frequency	60	60	40
Service hours	18	18	18
Service Summary			
Peak buses	11	5	5
Change from previous	–	-6	0
Annual revenue miles	668,325	400,180	446,680
Change from previous	–	-268,145	46,500
Annual revenue hours	44,402	23,840	26,610
Change from previous	–	-20,562	-20,562


MONROE
JACKSON
AVE 42
AVE 44
FRED WARING
6
(Route 6 continues west; refer to map)
ALADDIN
SHADOW PALM
HWY 111/AVE 46
MILES
INDIO
INDIO
REQUA
PARK
TOWNE
FARGO
HWY 111
111
(Route 111 continues west; refer to map)
CLINTON
ALADDIN
OASIS
DR CARREON
AVE 48
AVE 50
GRAPEFRUIT
WINE
1ST ST
4TH ST
5TH ST
COACHELLA
CALHOUN
VAN BUREN
AVE 52
AVE 53
AVE 54
HARRISON
TYLER
SHADY
AIRPORT
THERMAL
FILLMORE
PIERCE
AVE 57
BUCHANAN
AVE 58
HWY 86S
LINCOLN
AVE 62
HAMMOND
AVE 65
AVE 66
MECCA
POLK
9
PIERCE
OASIS
HARRISON
MARTINEZ
AVE 70
N
PROPOSED ROUTE
ROUTE SEGMENT REMOVED
CONNECTING ROUTE (shown for reference)
POST OFFICE
HOSPITAL
CITY HALL
SCHOOL
MEDICAL
LIBRARY
SENIOR CENTER

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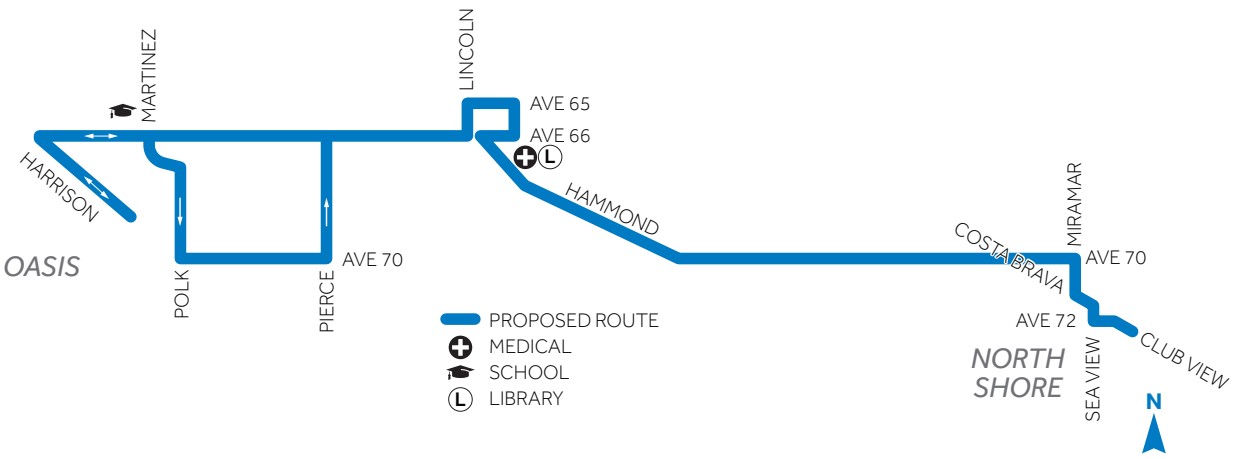
Route 9

In the Phase I transition to the Refueled transit network, create a new fixed route, Route 9, to provide bus service between North Shore, Mecca, and One Hundred Palms every 60 minutes, 7 days a week. Route 9 will provide local bus connectivity and coverage between North Shore, Mecca, and One Hundred Palms. It will connect to Route 8, and provide improved transit service in the North Shore area.

Description	Baseline N/A	Phase I New 60-minute all-day service	Phase II Same as Phase I
Weekday			
Peak frequency	N/A	60	60
Peak service hours	N/A	18	18
Off-peak frequency (mins)	N/A	0	0
Off-peak service hours	N/A	0	0
Weekend			
Frequency	N/A	60	60
Service hours	N/A	18	18
Service Summary			
Peak buses	N/A	3	3
Change from previous	–	0	0
Annual revenue miles	N/A	289,230	289,230
Change from previous	–	0	0
Annual revenue hours	N/A	15,000	15,000
Change from previous	–	0	0



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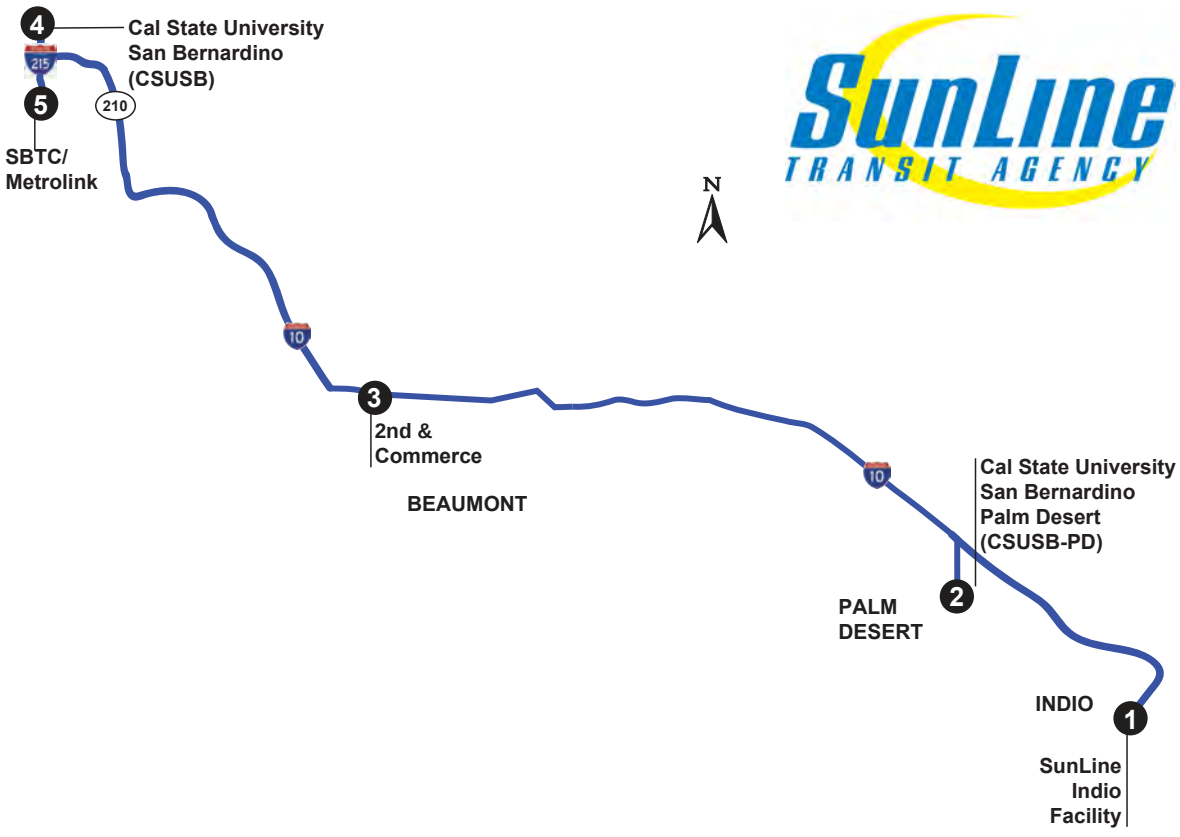
10 Commuter Link

The 10 Commuter Link is aimed at improving regional service between the Coachella Valley and the Inland Empire. For students, 10 Commuter Link will provide a direct connection between the California State University, San Bernardino – Palm Desert Campus and the main campus in San Bernardino. It will also provide a connection to the San Bernardino Downtown Metrolink Station. This service was originally planned to start in May 2020, but SunLine has delayed it because of ridership declines from the COVID-19 pandemic.

Description	Baseline Weekday commuter service	Phase I Same as baseline	Phase II Same as Phase I
Weekday			
One-way trips	4	4	4
Service Summary			
Peak buses	2	2	2
Change from previous	0	0	0
Annual revenue miles	174,700	174,700	174,700
Change from previous	0	0	0
Annual revenue hours	5,520	5,520	5,520
Change from previous	0	0	0



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Refueled Summary

Figure B.1 shows revenue hour estimates for FY2020 SunLine service, Phase I, and Phase II Refueled steps. This analysis shows that revenue hours needed for initial Phase I transition are 2 percent more than SunLine's FY2020 revenue hours. Phase II Refueled service would require a 16 percent increase in revenue hours.

Figure B.1 Refueled Revenue Hour Estimates

Route	FY2020	Phase I	Phase II
111X	0	7,130	7,130
111	67,814	68,106	68,106
2	53,670	50,380	63,680
3	5,448	5,448	7,370
4	29,625	32,360	34,820
5	4,916	3,610	5,420
6	6,733	11,600	14,050
7	9,687	9,687	11,050
8	44,402	23,840	26,610
9	0	15,000	15,000
10X	5,520	5,520	5,520
Total	**227,815**	**232,681**	**258,756**

Figure B.2 shows the revenue mile estimates for FY2020 SunLine service, Phase I, and Phase II Refueled. Phase I revenue mile estimates are 5 percent higher than FY2020. Phase II estimates are 19 percent more than FY2020 revenue miles.

Figure B.2 Refueled Revenue Mile Estimates

Route	FY2020	Phase I	Phase II
111X	0	139,150	139,150
111	1,006,510	1,006,510	1,093,810
2	696,583	664,920	840,490
3	87,484	87,484	121,760
4	451,019	457,150	491,800
5	103,171	73,180	109,770
6	113,483	171,950	208,150
7	129,249	129,249	153,830
8	668,325	400,180	446,680
9	0	289,230	289,230
10X	174,700	174,700	174,700
Total	**3,430,524**	**3,593,703**	**4,069,370**

Figure B.3 shows peak bus estimates for the SunLine Refueled program. This table shows that the Phase I transition from the existing 15 routes to the Refueled network can be accomplished using SunLine's FY2020 fleet. The Phase II service levels would require 9 additional buses.

Figure B.3 Refueled Peak Bus Estimates

Route	Baseline	Phase I	Phase II
111X	0	3	3
111	14	14	14
2	11	11	15
3	1	1	2
4	8	6	8
5	3	3	4
6	2	4	5
7	3	3	3
8	11	5	5
9	0	3	3
10X	2	2	2
Total	55	55	64

Microtransit Service

As part of its SunLine Refueled vision and COVID-19 recovery planning, SunLine is evaluating microtransit to provide lifeline service. As transit demand and recovery allow, SunLine may consider deploying microtransit to improve access to fixed route bus service.

Operating as a circulator or as on-demand service, microtransit would connect riders to SunLine's fixed route bus service. The points shown in Figure B.4 will be identified through a planning and public outreach process.

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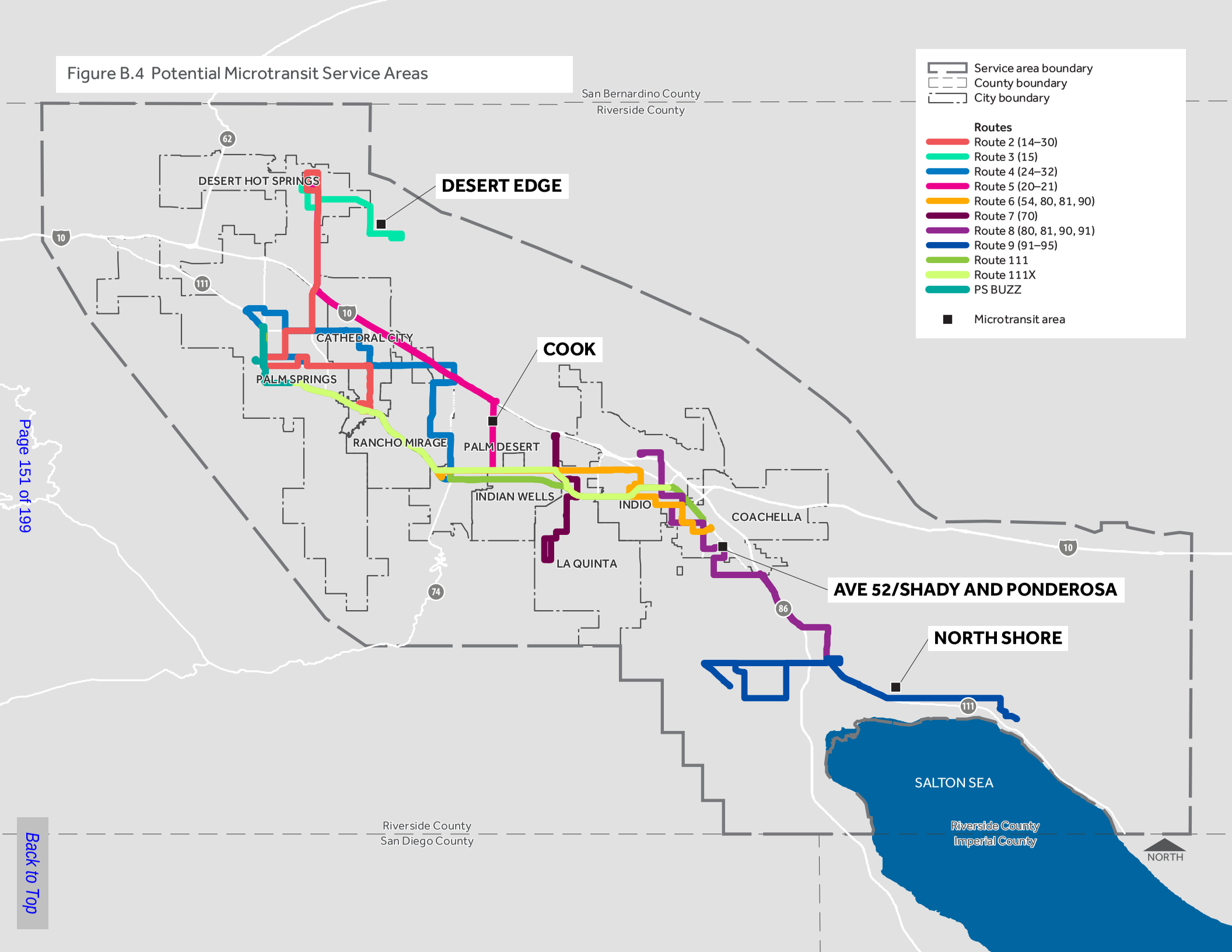
Figure B.4 Potential Microtransit Service Areas



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Appendix C: Zero-emission Bus Implementation Plan

SunLine Board of Directors Presentation: Innovative Clean Transit Regulation Rollout Plan

May 27, 2020

SunLine TRANSIT AGENCY

ZEN and the art of CLEAN ENERGY SOLUTIONS

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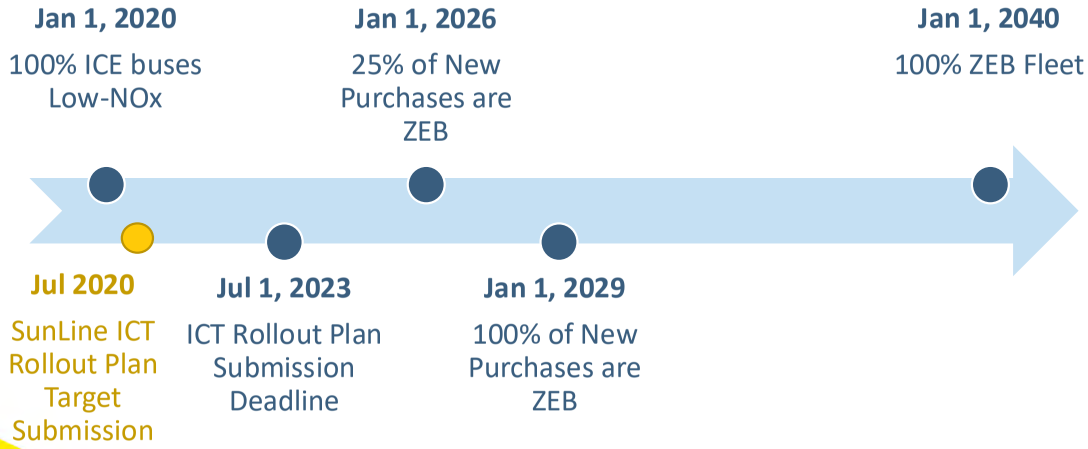
CARB ICT Regulation

- Innovative Clean Transit (ICT) Regulation adopted December 14, 2018
- Requires agencies to transition fleet to 100% zero-emission by 2040
- SunLine qualifies as a small transit agency
- Governing board must approve the Rollout Plan through the adoption of a resolution and submit to CARB by **July 1, 2023**
  - SunLine plans to lead with early submission in July 2020

ICT Regulation Timeline for a Small Agency



ICT Rollout Plan Requirements

- Schedule for replacement of all buses including technology type
- Schedule for installation of fuelling/ charging infrastructure
- Description of required facility upgrades
- Identification of potential funding sources
- Description of Impact on disadvantaged communities
- Training plan for maintenance and operations staff

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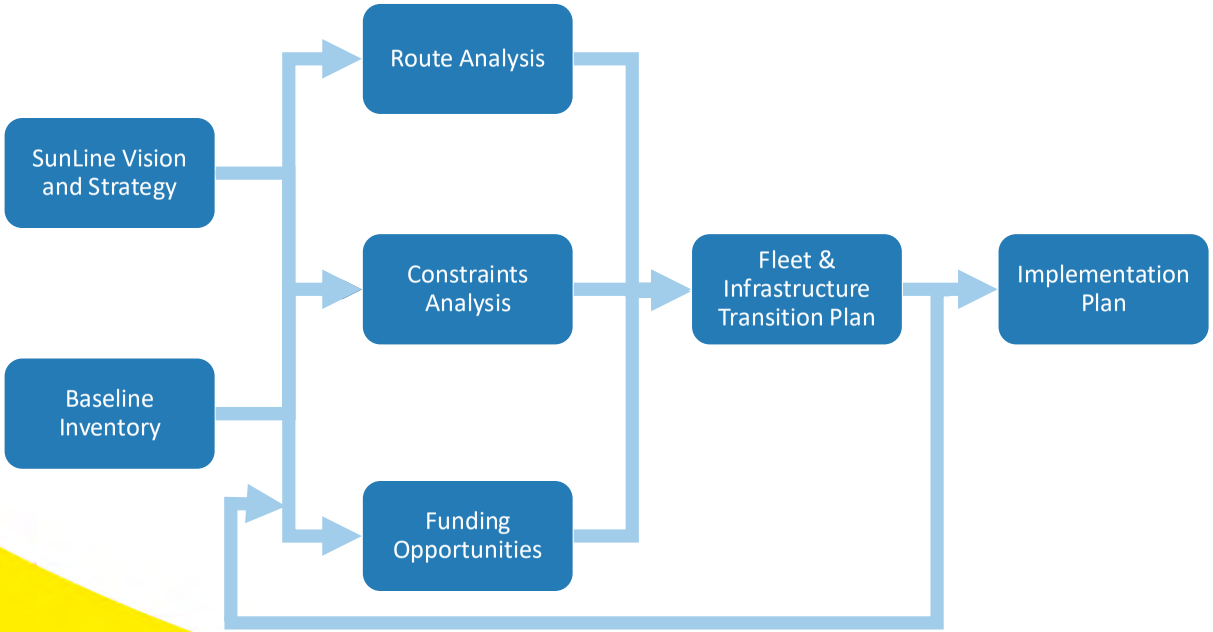
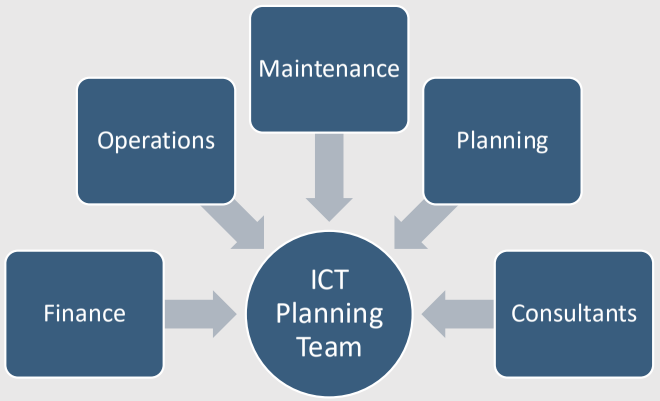
Appendix C

ICT Plan Development Process

- Highly iterative and collaborative process to develop optimal plan
- Conducted energy-based modelling to estimate capabilities of battery electric buses on SunLine routes and determine FCEB vs BEB split
- Investigated other infrastructure related constraints (e.g., electrical capacity)
- Forecasted cost based on current offerings and projected trends



Working Team



- Developed vision and strategy with SunLine's executive team
- Created a collaborative project team spanning SunLine's departments
- Held bi-weekly meetings to solicit feedback and promote engagement

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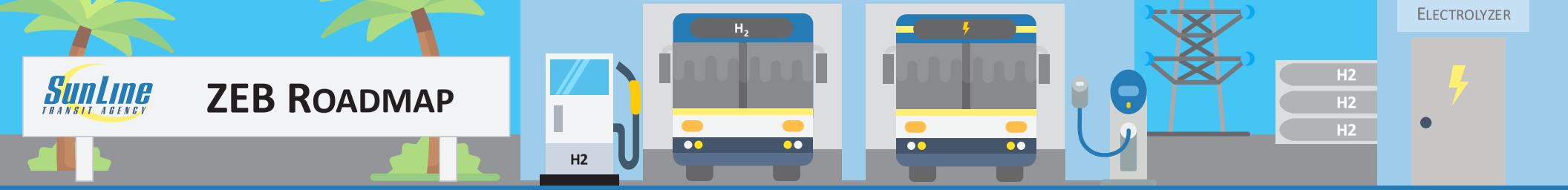
High Level Agency Vision

SunLine's is poised to lead the country in FCEB and BEB deployments and demonstrate the effectiveness of a zero-emission fleet.

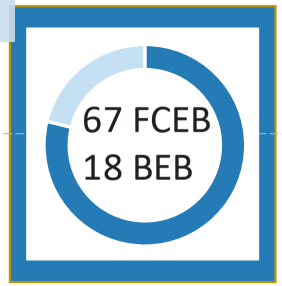
SunLine will be the first transit agency in the state/country to transition their fleet to 100% zero-emission vehicles.

Guiding Principles:

- Build off its past success securing special grant funding to accelerate the fleet transition.
- Optimize mix of FCEBs and BEBs to maximize performance / service and reduce costs
- Scheduled replacements to ensure all buses meet their expected useful life
- Avoid a large purchase of vehicles in a single year
- Strategically time infrastructure upgrades / installation



	2020	2025	2030	2035	2040
Fixed Route	24% ZEB	59% ZEB	82% ZEB	100% ZEB	100% ZEB
Paratransit	0% ZEB	0% ZEB	42% ZEB	100% ZEB	100% ZEB
H2 Infrastructure	+ 900 kg/day **electrolyzer** begins operation – Retire **SMR** Equipment	+ Add liquid delivered H2 Station at **1,000 Palms**		– Retire **CNG** Equipment + Add liquid delivered H2 Station at **Indio**	
BEB Infrastructure	+ Add **3** BEB chargers at **1,000 Palms**	+ Add **3** BEB chargers at **1,000 Palms** Add **2** BEB chargers at **Indio** + Add **1** BEB chargers at **1,000 Palms**		+ Add **2** BEB chargers at **1,000 Palms**	
Buses	+ VW Mitigation (**3 FCEB**) FY19 LowNo (**1 FCEB**) ? EPA-TAS Grant (**15 FCEB + 2 BEB**) + ? FY20 LowNo (**2 BEB**) **12 CNG** buses refurbished	+ CNG trolly buses replaced with **FCEBs**		+ CNG coach buses replaced with **FCEBs** + First **FCEB** Operating at **Indio**	
Milestones	★ **50%** ZEB **fixed route** fleet	★ First **paratransit** bus purchased		★ **100%** ZEB **fixed route** fleet ★ **100%** ZEB **paratransit** fleet	



LEGEND

+ ADD
– REMOVE
? TENTATIVE
★ KEY DATE

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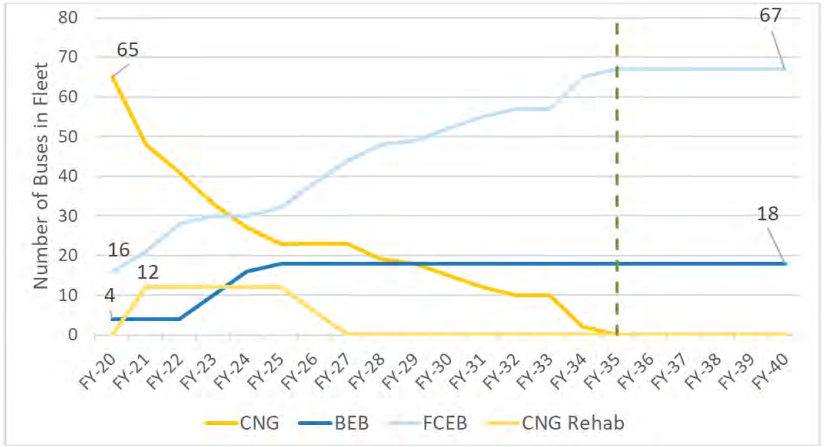
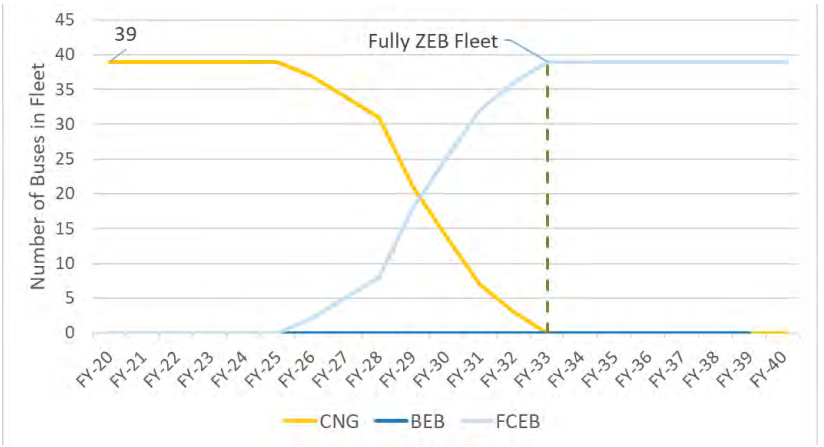
SunLine Fleet Composition

Fixed route and paratransit fleet composition from 2020-2040

- Fixed route buses transitioned quickly – no new CNG bus purchases after FY2020
  - 12 CNG buses refurbished in FY2021 to extend lifetime
- Paratransit buses transitioned in accordance with ICT requirements
  - ZEB purchases begin FY2026



Fixed Route Bus Transition Plan



Paratransit Transition Plan

*Fixed route fleet 100% ZEB by **FY-2035** – 67 FCEBs, 18 BEBs*

*Paratransit fleet 100% ZEB by **FY-2033** – 39 FCEBs, 0 BEBs*

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Appendix C

Total Capital Expenditure: 2020-2040

Includes bus purchases and fueling / charging equipment

- Total capital expenditure (buses and infrastructure) 2020-2040: **$173.4 million**

Capital Expenditure Type	# of Units	Total CapEx 2020-2040 ($ Million)
FR Buses	133	$128.7
Paratransit Buses	173	$35.4
BEB Chargers	9	$1.2
Thousand Palms H2 Station Upgrade	1	$5.6
Indio H2 Station	1	$2.5
Total	**n/a**	**$173.4**

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Funding Approach

Deploying zero-emission buses enables SunLine to unlock additional funding sources

- Targeted use of federal (5307 & 5339) and state funds following transition plan adoption schedule
  - Estimated $106.5 million available over duration of plan

- Special funding from competitive grants and voucher programs will make up the balance
  - Successful track record in securing funding and delivering projects

Example Funding Sources

Status	Funding Source	Current SunLine Activities
Application Approved	VW Mitigation	Funding received for 3 FCEBs ($**1.2 million**)
Application Submitted	EPA Targeted Airshed Grant	Application submitted for 15 FCEBs and 2 BEBs to be deployed 2022 (**$19.8 million**)
	5339 (b) Bus & Bus Facilities	Application submitted for refurbishment of 12 CNG buses (**$2.5 million**)
	5339(c) Low or No Emission Vehicle	Application submitted for 2 BEBs (**$1.8 million**)

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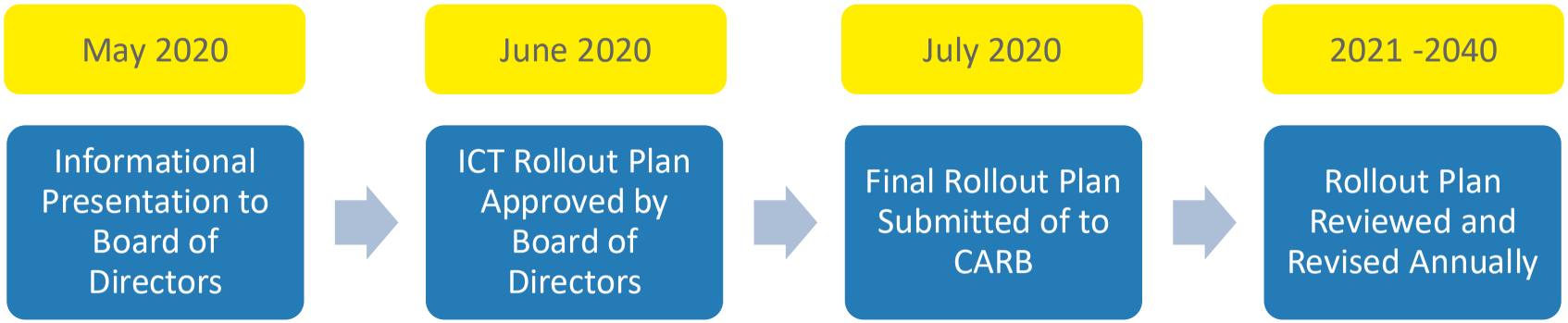
Next Steps

- SunLine's Board must approve the rollout plan through the adoption of a resolution prior to submission to California Air Resources Board (CARB)



- Annual review to assess plan based on:
  - Impact of securing special funding on transition schedule
  - Impact of technology improvement on recommended bus and infrastructure types
  - Operational learnings
  - Updated service offerings
  - Other factors – e.g., economic impact of COVID-19

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Appendix C


thank
you
essential
workers
TOGETHER
WE ARE STRONGER
THANK YOU TO ALL OF THOSE
WHO HAVE KEPT US MOVING
SunLine
SunLine.org/cvstrong
#CoachellaValleyStrong

SunLine Transit Agency

DATE: **June 24, 2020** **ACTION**

TO: **Strategic Planning & Operational Committee**
Board of Directors

FROM: **Tommy D. Edwards, Chief Performance Officer**

RE: **Zero-Emission Bus (ZEB) Rollout Plan**

Recommendation

Recommend that the Board of Directors adopt Resolution No. 0780, which approves the SunLine Transit Agency Zero-Emission Bus (ZEB) Rollout Plan and authorizes the CEO/General Manager to submit the ZEB Rollout Plan to the California Air Resources Board in accordance with the Innovative Clean Transit (ICT) Regulation.

Background

In December 2018, the California Air Resources Board adopted the ICT Regulation, which requires transit agencies operating in California to gradually transition their bus fleet to zero-emission technologies. The ICT Regulation requires that 25% of SunLine's new bus purchases must be zero-emission starting in 2026, 100% of new bus purchases must be zero-emission starting in 2029, and that 100% of all buses in the fleet must be zero-emission by 2040. All transit agencies in the state are required to produce a rollout plan outlining their strategy to reach the targets defined in the ICT mandate.

The final Rollout Plan, which is attached to Resolution No. 0780, outlines a path for SunLine to transition the bus fleet to zero-emission by 2035 – 5 years earlier than the target set by the ICT Regulation. This will build upon SunLine's leadership position in the zero-emission vehicle space, provide environmental and health benefits to SunLine staff, riders, and the local population.

An overview of the Rollout Plan was presented to the Strategic Planning & Operational Committee on May 27, 2020. This plan demonstrates the level of support required from federal, state, and local agencies to achieve the goals of the ICT Regulation. It will be beneficial for SunLine when applying for special grant funding. The Rollout Plan will become a living document to help guide the transition of the bus fleet to zero-emission.

Financial Impact

There is no financial impact from this request. Funding for specific purchases outlined in the plan will be subject to approval of the Board at a later date.

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SUNLINE TRANSIT AGENCY

RESOLUTION NO. 0780

RESOLUTION APPROVING THE SUNLINE TRANSIT AGENCY ZERO-EMISSION BUS (ZEB) ROLLOUT PLAN AND AUTHORIZING THE CEO/GENERAL MANAGER TO SUBMIT THE ZEB ROLLOUT PLAN TO THE CALIFORNIA AIR RESOURCES BOARD IN ACCORDANCE WITH THE INNOVATIVE CLEAN TRANSIT REGULATIONS

WHEREAS, SunLine Transit Agency is a Joint Powers Authority located at 32-505 Harry Oliver Trail, Thousand Palms, CA, 92276 and its Board of Directors is comprised of one elected official from each member agency, which includes Desert Hot Springs, Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, La Quinta, Indio, Coachella and the County of Riverside; and

WHEREAS, the Innovative Clean Transit (ICT) regulations were adopted by the California Air Resources Board (CARB) in December 2018 and became effective on October 1, 2019;

WHEREAS, Title 13 of the California Code of Regulations § 2023 (13 CCR § 2023.1 through 2023.11) requires all public transit agencies to gradually transition their bus fleet to zero-emission technologies;

WHEREAS, each transit agency must adopt and submit to CARB a ZEB Rollout Plan describing how the agency will transition to a zero-emission fleet;

WHEREAS, SunLine's ZEB Rollout Plan must be submitted to CARB by July 1, 2023;

WHEREAS, SunLine's goal is to fully transition to zero-emission technologies by 2035, that avoids early retirement of compressed natural gas (CNG) buses, and can be achieved with available funds; and

WHEREAS, the Board of Directors has approved a Strategic Plan as a foundation to guide the implementation of ZEBs and compliance with California Code of Regulations § 2023.2.

NOW THEREFORE, BE IT FURTHER RESOLVED that the Board of Directors of Sunline Transit Agency adopts the SunLine Transit Agency's ZEB Rollout Plan, attached hereto as Exhibit A, which achieves the following pursuant to the ICT Regulations:

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1. A goal to transition its bus fleet to zero-emission by 2035 with careful planning that avoids early retirement of CNG buses;

2. Identifies types of ZEB technologies that the Agency intends to continue to deploy, including battery electric and hydrogen fuel cell electric buses;

3. Sets forth a schedule for construction of facilities and infrastructure modifications or upgrades required to deploy and maintain the ZEBs;

4. Sets forth a schedule for ZEB purchases;

5. Describes how the Agency plans to deploy ZEBs in disadvantaged communities as listed in the latest version of "CalEnviroScreen";

6. Sets forth a training plan and schedule to train operators and maintenance and repair staff;

7. Describes how the Agency will share knowledge about the commercialization of zero-emission technologies as well as exploring economic investments in the workforce by leading the West Coast Center of Excellence in Zero-Emission technology and Renewable Energy;

8. Identifies potential funding sources; and

9. Identifies start-up and scale-up challenges.

NOW THEREFORE, BE IT RESOLVED that the CEO/General Manager is authorized to submit the SunLine Transit Agency's ZEB Rollout Plan, and any other documents or instruments required by CARB for the submittal and adoption of the ZEB Rollout Plan, in accordance with the ICT Regulations.

ADOPTED this 24th day of June, 2020

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ATTEST:

_____	_____
Brittney B. Sowell	Kathleen Kelly
Clerk of the Board	Chairperson of the Board
SunLine Transit Agency	SunLine Transit Agency

APPROVED AS TO FORM:

_____

General Counsel
Eric Vail

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STATE OF CALIFORNIA)
) ss.
COUNTY OF RIVERSIDE)

I, BRITTNEY B. SOWELL, Clerk of the Board of Directors of the SunLine Transit Agency, do hereby certify that Resolution No. _____ was adopted at a regular meeting of the Board of Directors held on the _____ day of _____, 20__, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

IN WITNESS WHEREOF, I have hereunto set my hand this ___ day of _____, 20__.

_____
Brittney B. Sowell
Clerk of the Board
SunLine Transit Agency

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ZERO-EMISSION BUS
ROLLOUT PLAN

SunLine TRANSIT AGENCY

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SECTION A:

Transit Agency Information

SunLine Transit Agency (SunLine) provides public transit services in California's Coachella Valley. It has pioneered zero-emission bus deployments, particularly for hydrogen fuel cell electric buses (FCEB). In 1993, SunLine's Board adopted a voluntary policy of pursing alternative fuel solutions that provide the lowest possible emissions, which led to SunLine becoming the first transit agency in the state to convert its entire fleet to compressed natural gas (CNG). The current fleet includes 16 FCEBs and 4 battery electric buses (BEB), which comprise 24% of the fixed route fleet. SunLine is committed to transitioning its entire bus fleet to zero-emission in accordance with the Innovative Clean Transit (ICT) Regulation.

SunLine service includes local fixed route buses, a bus circulator loop, commuter/express buses, microtransit, and paratransit buses. Its service area is in the Riverside County Supervisorial District 4 and includes the following cities:

- Cathedral City
- Coachella
- Desert Hot Springs
- Indian Wells
- Indio
- La Quinta
- Palm Desert
- Palm Springs
- Rancho Mirage

SunLine's service also includes several unincorporated territories within Riverside County. In total, the service area covers 1,120 square miles. The bus fleet provides service to 15 local bus routes, one commuter/express bus between Indio and San Bernardino, and paratransit services for people who are unable to use fixed route buses.

SunLine operates out of two facilities. The administrative headquarters and main operating facility is located at 32-505 Harry Oliver Trail in Thousand Palms (Thousand Palms Facility). A smaller operating and maintenance facility is located at 83-255 Highway 111 in Indio (Indio Facility).

SunLine operates within the South Coast Air Quality Management District. The majority of SunLine's service territory is within the Salton Sea Air Basin, but the commuter bus route extends into the South Coast Air Basin. Key information about the agency is summarized below:

Transit Agency's Name	SunLine Transit Agency
Mailing Address (number, street, city, county, zip code)	32-505 Harry Oliver Trail Thousand Palms, CA 92276
Name of Transit Agency's Air District(s)	South Coast Air Quality Management District
Name of Transit Agency's Air Basin(s)	Salton Sea Air Basin, South Coast Air Basin
Total number of buses in Annual Maximum service	59
Population of the urbanized area a transit agency is serving as last published by the Census Bureau before December 31, 2017	375,550
Contact information of the general manager, chief operating officer, or equivalent: A) Contact Name (Last Name, First Name, MI) B) Title C) Phone number D) Email Address	Skiver, Lauren Chief Executive Officer / General Manager 760-343-3456 lskiver@sunline.org

SECTION B:

Rollout Plan General Information

SunLine's Rollout Plan will enable the agency to fully transition its bus fleet to zero-emission by 2035, which is five years ahead of the deadline set in the ICT Regulation. All buses will operate for their expected useful life to avoid early retirement of any vehicle. To achieve this, SunLine will build off past success deploying FCEBs and BEBs, which already make up 24% of the fixed route fleet.

Starting in 2021, all new fixed route vehicle purchases will be zero-emission buses (ZEB). Since each bus will operate for their entire useful life of 12-14 years, the last CNG buses purchased will dictate the year in which the fleet is fully transitioned to zero-emission. Any fixed route CNG bus purchases beyond 2020 will delay the transition.

The paratransit cutaway buses will be replaced on-schedule with the ICT regulation. However, the turnover of these vehicles is quicker because they are designed to a shorter lifespan. This will enable the paratransit CNG vehicles to be phased out of the fleet before 2035.

To reduce near-term costs, SunLine will refurbish 12 CNG fixed route buses in 2020, extending their lifetime by approximately six years. Fifty-three of SunLine's fixed route buses (62% of the fleet) were purchased between 2008 and 2009 and are now approaching their useful life. This batch procurement was executed to take advantage of available funding programs at that time. In the absence of these refurbishments, all these buses would need to be replaced around the same time, which would drive a spike in procurement. Extending the lifetime of a portion of these buses through refurbishment will help equalize the number of new purchases from year to year.

SunLine's existing FCEB fueling and BEB charging infrastructure was designed to enable future growth of their fleet. In late 2019, SunLine began operating an electrolyzer capable of producing 900 kg-H_2/day, which is enough to satisfy demand for 32 buses based on the average fuel consumption of FCEBs operating on SunLine's routes. There are currently six AC/DC BEB chargers installed between SunLine's Thousand Palms and Indio facilities serving only four BEBs. The electrical capacity could be used to power additional buses; however, new DC/DC chargers will be required to be compatible with BEBs offered by most bus providers.

This Rollout Plan was approved by SunLine's Board of Directors on June 24, 2021 under resolution <TBD>. The board approved resolution is attached as Appendix B.

This Rollout Plan was developed by Zen and the Art of Clean Energy Solutions (Zen) in collaboration with SunLine.

For additional information on the Rollout Plan, please contact:

Tommy Edwards
Chief Performance Officer
(760) 343-3456 x1203
tedwards@sunline.org

SECTION C:

Technology Portfolio

SunLine intends to continue to deploy both FCEBs and BEBs as the fleet is transitioned to 100% zero-emission. The final fleet composition – 67 fixed route FCEBs, 18 fixed route BEBs, and 39 paratransit FCEBs – was determined to maximize performance and minimize cost. Using speed and elevation data from SunLine's current routes/blocks, daily operating energy and peak power requirements for BEBs and FCEBs were modelled to determine which technology was most appropriate for each route. Additional constraints were considered such as infrastructure footprint limitations and available electrical capacity.

Route Analysis

A representative portion of SunLine's routes were analyzed using a proprietary kinetic model developed by Zen, to determine which routes were best suited to BEBs or FCEBs. The model provides an accurate prediction of actual bus range limitations by considering route-specific power demand over time based on speed, elevation change, and idling time. Results were modelled based on vehicle specifications for several currently available BEBs and FCEBs. The model accuracy has been validated through comparison with actual range and fuel consumption on BEBs and FCEBs respectively.

Figure 1 shows an example of a duty cycle for a particular route operated during peak revenue service at SunLine. Figure 2 and Figure 3 show the modelled power demand and fuel consumption for a BEB and FCEB respectively operating on the duty cycle shown in Figure 1.

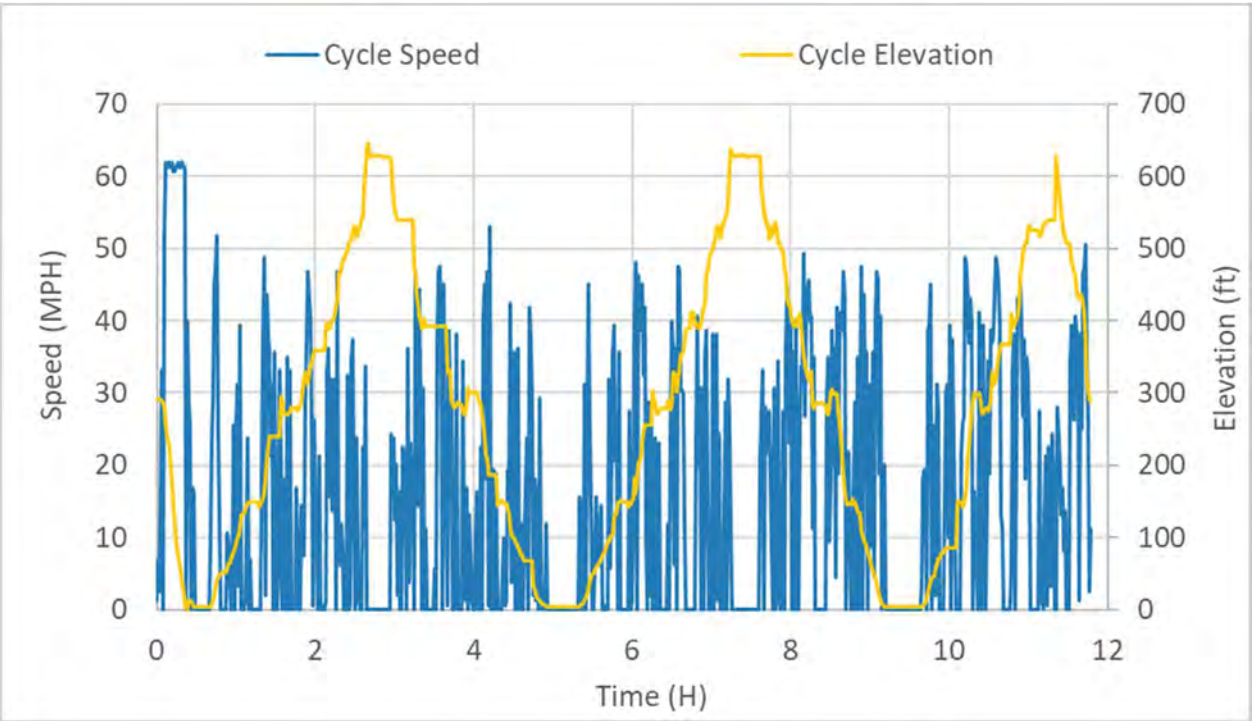


Figure 1. Example Duty Cycle

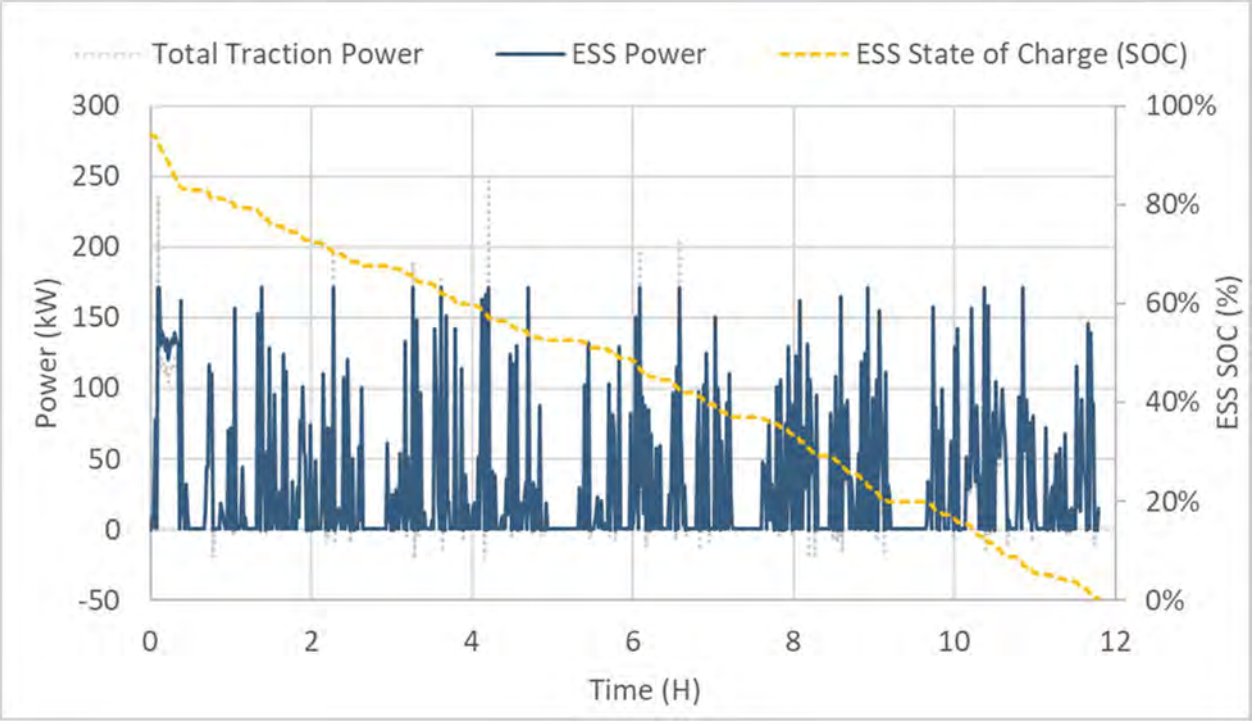


Figure 2. Example BEB Model: Power and Energy System Storage State of Charge

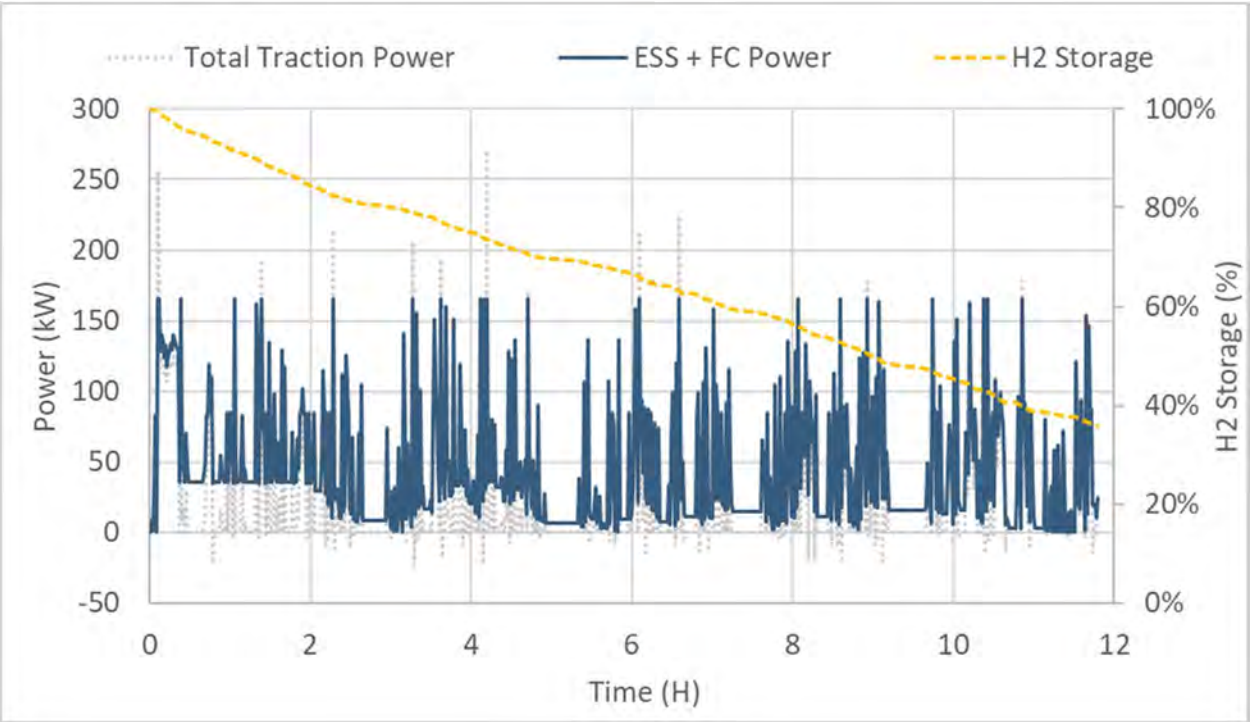


Figure 3. Example FCEB Model: Power and Hydrogen Storage

Based on the route modelling output, SunLine's fleet could contain up to 20-41 BEBs while maintaining the current service level and without requiring more than a 1-1 vehicle replacement. The remainder of the fleet must be FCEBs, due to the longer range capability of these bus types.

Infrastructure Constraints

Two major constraints limiting the deployment of ZEB infrastructure are the availability of space and electrical capacity. New hydrogen fueling or electric charging equipment takes up land area and must be sited to enable vehicle flow and parking. For highly space constrained agencies, this will be a major factor in deciding what type of equipment to install. Both of SunLine's facilities have sufficient space to install hydrogen and battery electric charging equipment without impacting existing operations.

Figure 4 and Figure 5 show overhead views of existing bus fueling/charging equipment as well as the expected location of future equipment at the Thousand Palms and Indio facilities respectively. The location of future equipment shown in these figures is approximate – the exact siting will be determined through engineering analysis as the construction projects are planned.

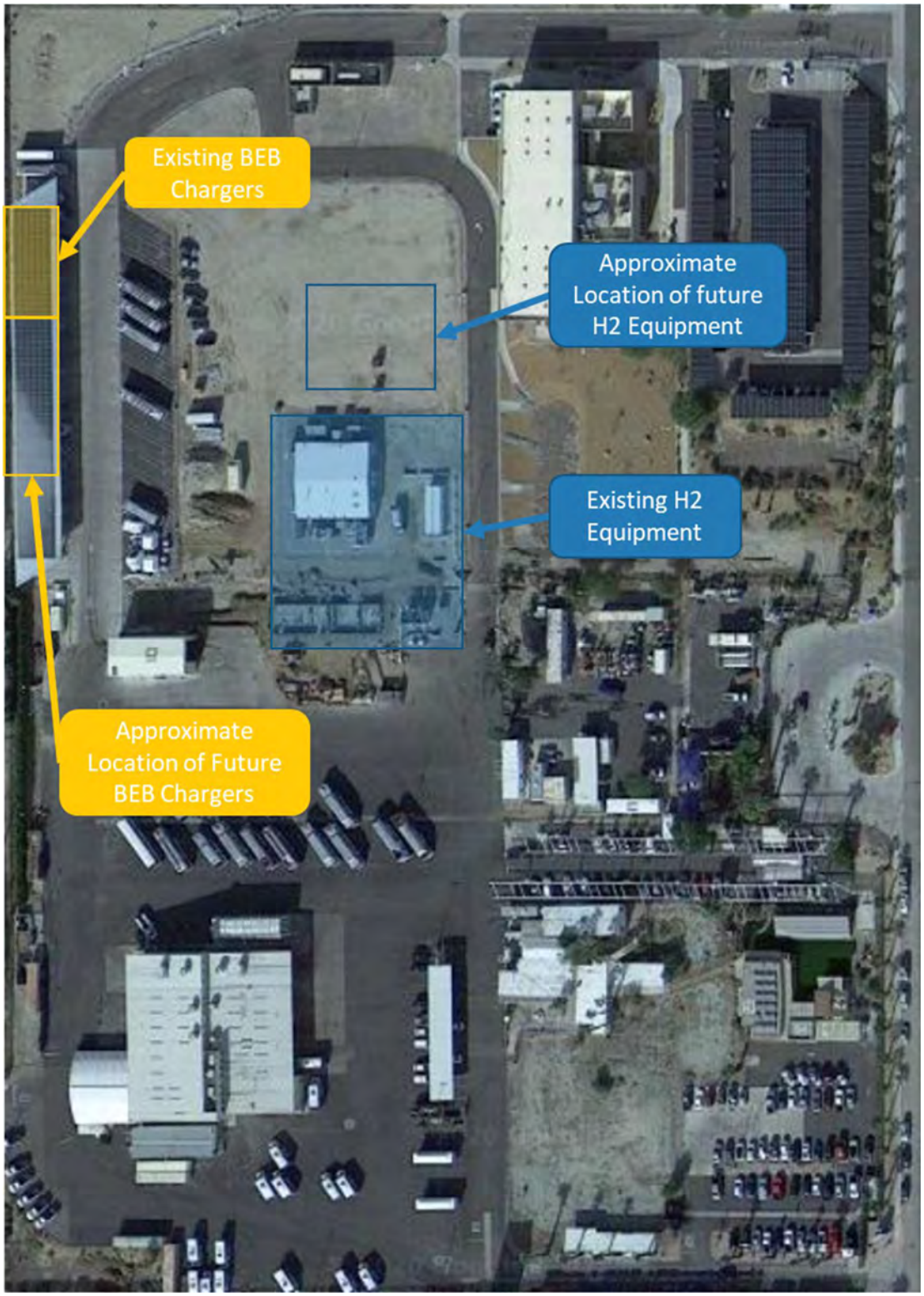


Figure 4. SunLine Thousand Palms Facility Site Overview

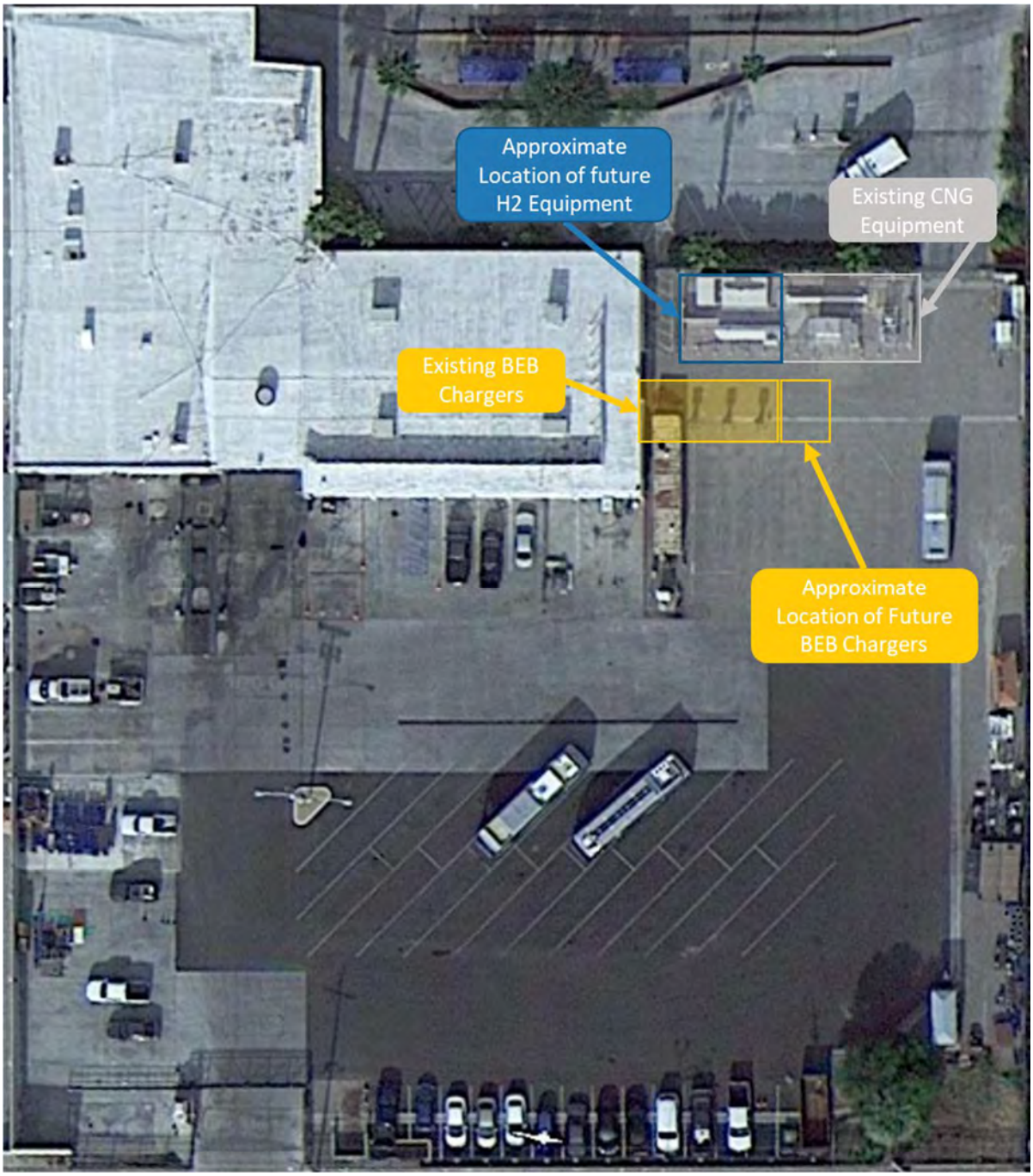


Figure 5. SunLine Indio Facility Site Overview

The available electrical capacity at both the Thousand Palms and Indio facilities was assessed based on the total power supplied to both sites compared to the loads on each meter. Historical billing data was also reviewed to assess current utilization. It was determined that SunLine's fleet could be comprised of 17-24 BEBs without requiring additional electrical capacity to the sites. Going beyond this threshold would necessitate adding a new distribution line and potentially a new substation upstream of the meter which would be prohibitively expensive.

Final Fleet Composition

Figure 6 shows the limits for the number of BEBs in the fleet based on the route analysis and electrical capacity.

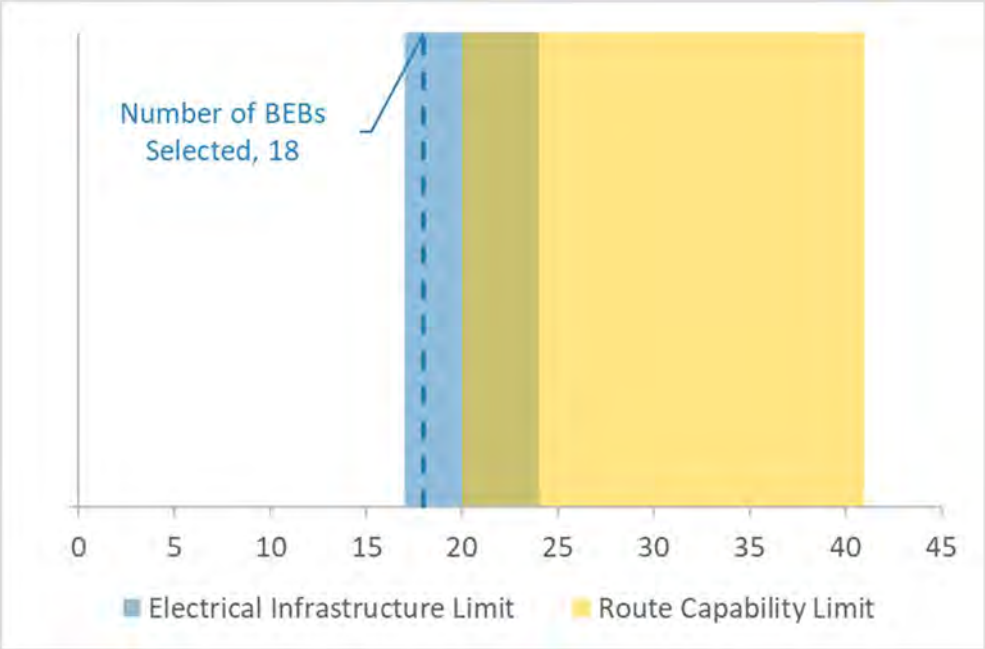


Figure 6. BEB Fleet Size Limit Summary

To be conservative, the final fixed route fleet composition was determined to be 18 BEBs and 67 FCEBs. The plan is for all paratransit vehicles to be FCEBs, in order to utilize the same infrastructure as the fixed route vehicles. This split ensures that SunLine will be able to continue operating at the same service level and minimizes cost by utilizing BEBs to the extent possible without triggering costly electrical transmission upgrades or compromising vehicle range requirements.

SECTION D:

Current Bus Fleet Composition & Future Bus Purchases

SunLine's current fleet of fixed route buses is comprised of 16 FCEBs, 4 BEBs, and 65 CNG vehicles. Four of the CNG buses were added to the fleet in 2020 as expansion vehicles. Two CNG over-the-road buses operate on SunLine's commuter link route between Indio and San Bernardino. SunLine operates five trolley style CNG buses on its BUZZ service - a free local circulator operating in downtown Palm Springs on Thursday, Friday, and Saturday.

Table 1: Individual Bus Information of Current Bus Fleet

Number of Buses	Bus Model Year	Fuel Type	Bus Type
1	2012	Hydrogen	Standard
3	2014	Hydrogen	Standard
1	2017	Hydrogen	Standard
8	2018	Hydrogen	Standard
2	2019	Hydrogen	Standard
1	2016	Hydrogen	Standard
4	2018	Electricity	Standard
1	2005	CNG	Standard
2	2020	CNG	Over-the-Road
37	2008	CNG	Standard
10	2009	CNG	Standard
5	2014	CNG	Trolley Style
6	2016	CNG	Standard
4	2020	CNG	Standard
3	2013	CNG	Cutaway
4	2015	CNG	Cutaway
9	2016	CNG	Cutaway
9	2017	CNG	Cutaway
14	2019	CNG	Cutaway

The replacement schedule was designed so that no bus retires before completing its useful life. Typically, fixed route buses were assumed to operate for 14 years. To avoid a single year with significantly more purchases than usual, the expected retirement age was sometimes staggered to better distribute procurement across years. All fixed route buses were assumed to last at least 12 years and no bus was projected to last more than 15 years.

The paratransit bus replacement schedule was similarly devised assuming the CNG vehicles typically last 4 years. This is consistent with current operations at SunLine. No CNG paratransit vehicle was forecasted to last longer than 5 years. FCEB paratransit vehicles are not commercially available, so their lifetime is uncertain. However, due to the added expense of fuel cells relative to a CNG engine, it is probable that the vehicles will need to be designed to last longer than conventional CNG vehicles. In this plan, it was assumed that FCEB paratransit vehicles will last 6 years on average. This will need to be revisited as FCEB paratransit vehicles become available and are tested on the road.

Figure 7 and Figure 8 show the number of new bus purchases anticipated each year for fixed route and paratransit operations respectively.

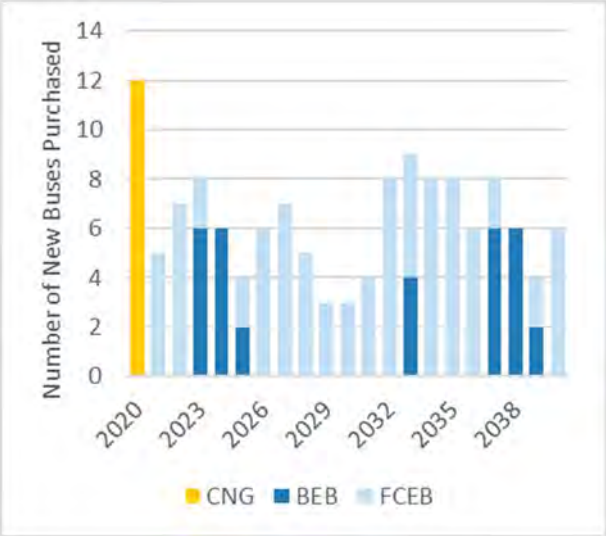


Figure 7. Fixed Route Bus Purchases by Year

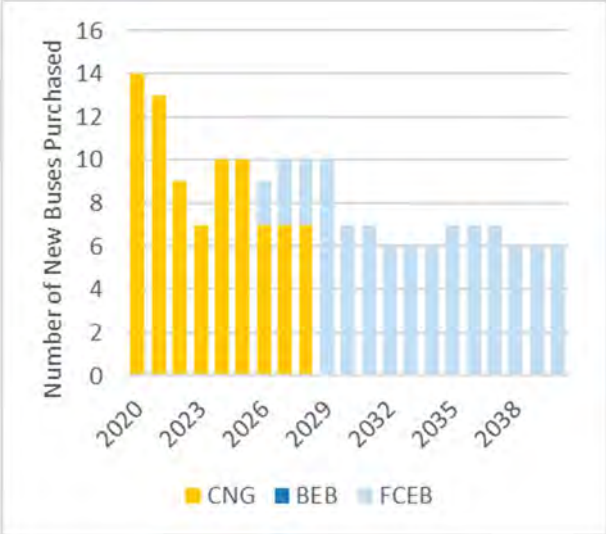


Figure 8. Paratransit Bus Purchases by Year

Figure 9 and Figure 10 show the composition of SunLine's fixed route and paratransit fleets between 2020 and 2040. Figure 9 identifies 12 "CNG Rehab" buses. A large portion of SunLine's fixed route bus fleet needs to be replaced between 2020 and 2021 due to a large batch procurement of buses in 2008 and 2009. To limit the number of new purchases in these two years, 12 CNG buses will be refurbished and have Cummins near-zero engines installed to extend their lifetime by approximately 6 years. This will delay these purchases to distribute capital expenditure more evenly across years.

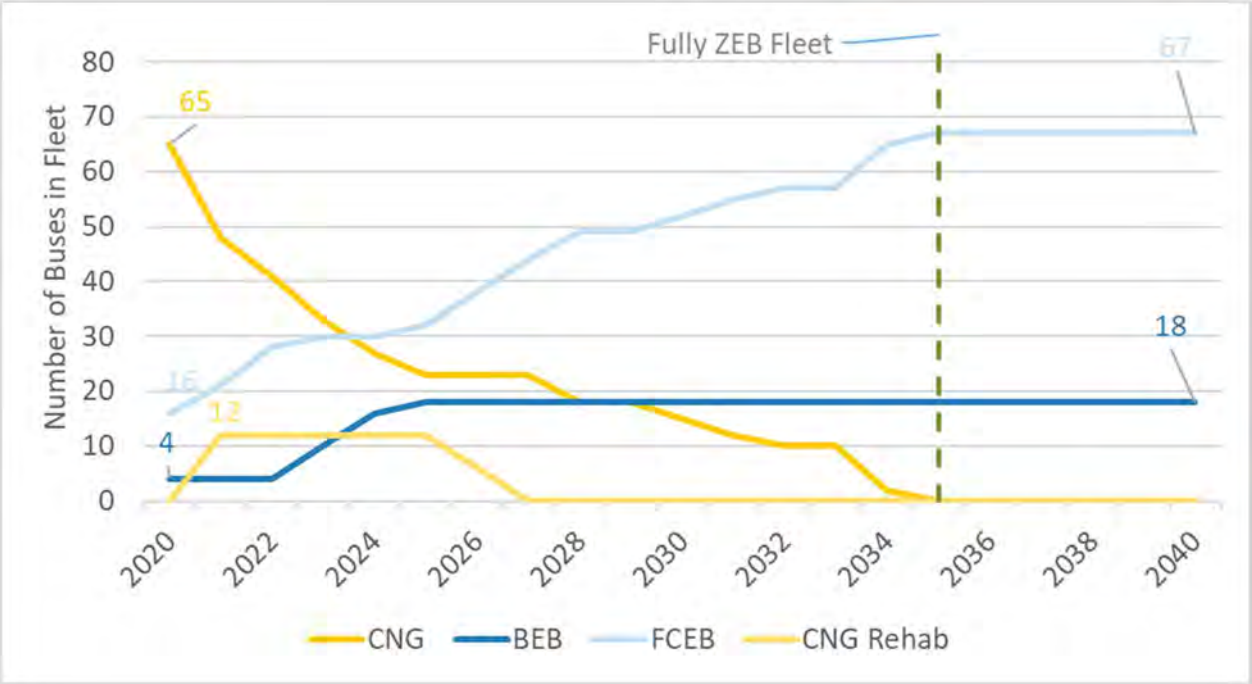


Figure 9. Fixed Route Bus Fleet Composition by Year

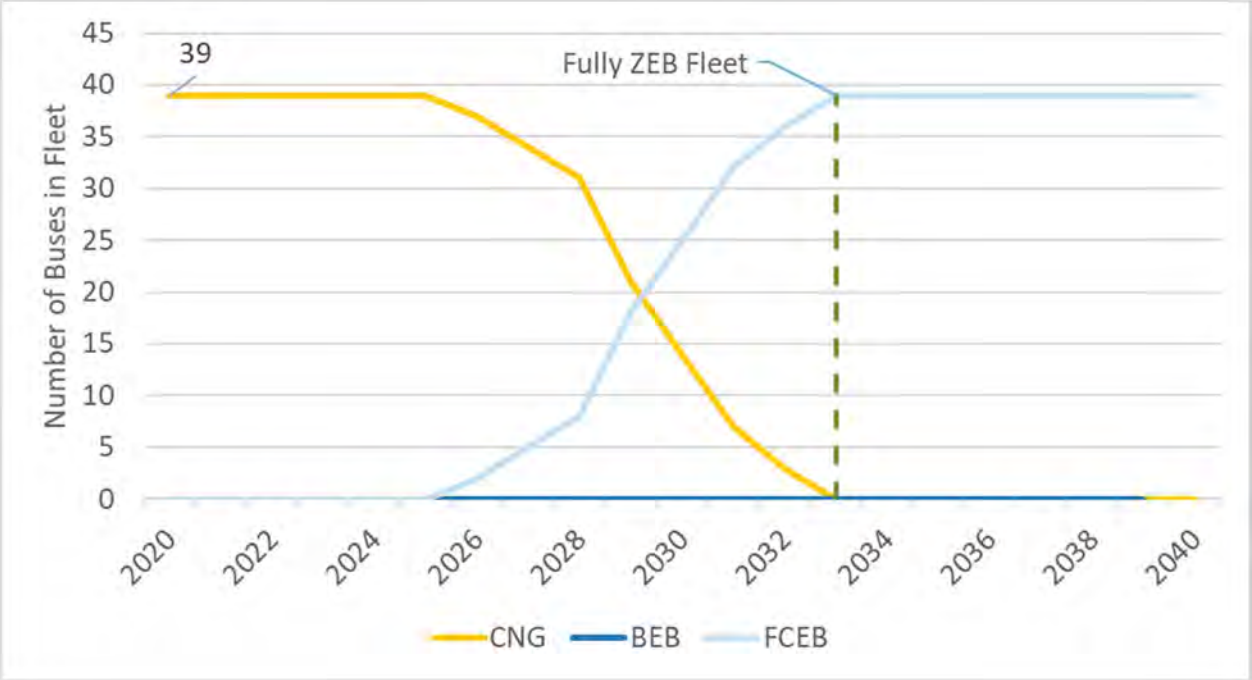


Figure 10. Paratransit Bus Fleet Composition by Year

Table 2 shows all future bus purchases by year, type, and technology.

Table 2: Future Bus Purchases

Timeline (year)	Total No. Buses Purchased	ZEB Purchases				Conventional Bus Purchases			
		No.	% of ZEB	Bus Type	Fuel Type	No.	% of Conv.	Bus Type	Fuel Type
2020	26	0	0%			26	100%	•10 Standard •2 Over-the-Road •14 Cutaway	•26 CNG
2021	18	5	28%	•5 Standard	•5 Hydrogen	13	72%	•13 Cutaway	•13 CNG
2022	16	7	44%	•7 Standard	•7 Hydrogen	9	56%	•9 Cutaway	•9 CNG
2023	15	8	53%	•8 Standard	•2 Hydrogen •6 Electricity (Depot)	7	47%	•7 Cutaway	•7 CNG
2024	16	6	38%	•6 Standard	•6 Electricity (Depot)	10	63%	•10 Cutaway	•10 CNG
2025	14	4	29%	•4 Standard	•2 Hydrogen •2 Electricity (Depot)	10	71%	•10 Cutaway	•10 CNG
2026	15	8	53%	•6 Standard •2 Cutaway	•8 Hydrogen	7	47%	•7 Cutaway	•7 CNG
2027	17	10	59%	•7 Standard •3 Cutaway	•10 Hydrogen	7	41%	•7 Cutaway	•7 CNG
2028	15	8	53%	•5 Trolley Style •3 Cutaway	•8 Hydrogen	7	47%	•7 Cutaway	•7 CNG
2029	13	13	100%	•3 Standard •10 Cutaway	•13 Hydrogen	0	0%		
2030	10	10	100%	•3 Standard •7 Cutaway	•10 Hydrogen	0	0%		
2031	11	11	100%	•4 Standard •7 Cutaway	•11 Hydrogen	0	0%		

Timeline (year)	Total No. Buses Purchased	ZEB Purchases				Conventional Bus Purchases			
		No.	% of ZEB	Bus Type	Fuel Type	No.	% of Conv.	Bus Type	Fuel Type
2032	14	14	100%	•6 Standard •2 Over-the-Road •6 Cutaway	•14 Hydrogen	0	0%		
2033	15	15	100%	•9 Standard •6 Cutaway	•11 Hydrogen •4 Electricity (Depot)	0	0%		
2034	14	14	100%	•8 Standard •6 Cutaway	•14 Hydrogen	0	0%		
2035	15	15	100%	•8 Standard •7 Cutaway	•15 Hydrogen	0	0%		
2036	13	13	100%	•6 Standard •7 Cutaway	•13 Hydrogen	0	0%		
2037	15	15	100%	•8 Standard •7 Cutaway	•9 Hydrogen •6 Electricity (Depot)	0	0%		
2038	12	12	100%	•6 Standard •6 Cutaway	•6 Hydrogen •6 Electricity (Depot)	0	0%		
2039	10	10	100%	•4 Standard •6 Cutaway	•8 Hydrogen •2 Electricity (Depot)	0	0%		
2040	12	12	100%	•6 Standard •6 Cutaway	•12 Hydrogen	0	0%		

The cost of each new bus purchase was forecasted based on the most recent quotes for procuring buses received by SunLine and future cost trends projected by the California Air Resources Board (CARB).[1] Figure 11 and Figure 12 show the estimated annual cost for fixed route and paratransit vehicles based on the adoption schedule in this rollout plan.

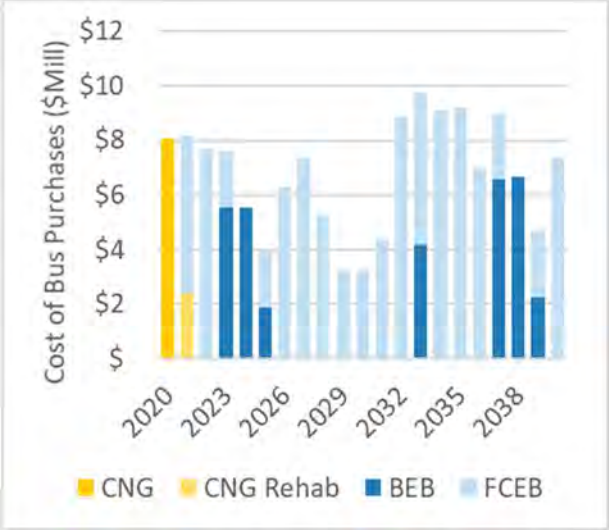


Figure 11. Cost of Fixed Route Bus Purchases

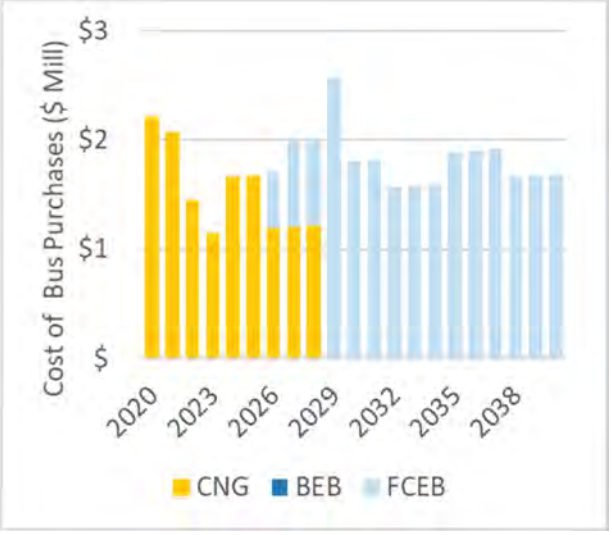


Figure 12. Cost of Paratransit Bus Purchases

Table 3 shows the estimated range and cost of each ZEB purchase outlined in the plan.

Table 3. Range and Estimated Cost of Future ZEB Purchases

Timeline (year)	Number of ZEBs	Bus Type(s)	Estimated Cost of Each Bus
2021	5	•5 Standard FCEB	•$1,150,000
2022	7	•7 Standard FCEB	•$1,100,000
2023	8	•2 Standard FCEB •6 Standard BEB	•$1,050,000 •$920,000
2024	6	•6 Standard BEB	•$920,000
2025	4	•2 Standard FCEB •2 Standard BEB	•$1,040,000 •$930,000
2026	8	•6 Standard FCEB •2 Cutaway FCEB	•$1,050,000 •$260,000

[1] State of California Air Resources Board. (2018). Staff Report: Initial Statement of Reasons - Public Hearing to Consider the Proposed Innovative Clean Transit Regulation A Replacement of the Fleet Rule for Transit Agencies: Appendix K. Retrieved from https://www.arb.ca.gov/regact/2018/ict2018/appk-statewidecostanalysis.xlsx?_ga=2.48303334.1749999270.1571069223-138148794.1501775822

Timeline (year)	Number of ZEBs	Bus Type(s)	Estimated Cost of Each Bus
2027	10	•7 Standard FCEB •3 Cutaway FCEB	•$1,060,000 •$260,000
2028	8	•5 Trolley Style FCEB •3 Cutaway FCEB	•$1,060,000 •$260,000
2029	13	•3 Standard FCEB •10 Cutaway FCEB	•$1,070,000 •$260,000
2030	10	•3 Standard FCEB •7 Cutaway FCEB	•$1,080,000 •$260,000
2031	11	•4 Standard FCEB •7 Cutaway FCEB	•$1,090,000 •$260,000
2032	14	•6 Standard FCEB •2 Over-the-Road FCEB •6 Cutaway FCEB	•$1,110,000 •$1,110,000 •$260,000
2033	15	•5 Standard FCEB •4 Standard BEB •6 Cutaway FCEB	•$1,120,000 •$1,040,000 •$260,000
2034	14	•8 Standard FCEB •6 Cutaway FCEB	•$1,140,000 •$270,000
2035	15	•8 Standard FCEB •7 Cutaway FCEB	•$1,150,000 •$270,000
2036	13	•6 Standard FCEB •7 Cutaway FCEB	•$1,170,000 •$270,000
2037	15	•2 Standard FCEB •6 Standard BEB •7 Cutaway FCEB	•$1,180,000 •$1,100,000 •$270,000
2038	12	•6 Standard FCEB •6 Cutaway FCEB	•$1,200,000 •$280,000
2039	10	•2 Standard FCEB •2 Standard BEB •6 Cutaway FCEB	•$1,210,000 •$1,130,000 •$280,000
2040	12	•6 Standard FCEB •6 Cutaway FCEB	•$1,230,000 •$280,000

SunLine is not considering converting any conventional buses to zero-emission vehicles, the plan is based on replacement buses only.

SECTION E:

Facilities and Infrastructure Modifications

SunLine has infrastructure in place to support the FCEBs and BEBs already in its bus fleet and to enable expansion. In late 2019, a 900 kg/day hydrogen electrolysis station became operational at SunLine's Thousand Palms Facility. This station includes hydrogen production, compression, storage, and dispensing. It is capable of supporting a fleet of approximately 32 FCEBs based on the fuel consumption of FCEBs currently deployed at SunLine. This station replaced SunLine's previous hydrogen production facility which generated hydrogen through the reformation of natural gas, which was decommissioned in 2020.

The Thousand Palms and Indio facilities each have three 80 kW AC/DC BEB chargers that power the four BYD BEBs currently in the fleet. These chargers could serve additional BEBs, but for the purposes of planning it was assumed that new chargers would need to be installed as BEBs join the fleet because most BEB models require DC/DC chargers. The critical difference is that the buses currently deployed at SunLine include onboard equipment to convert the AC power to DC, so the chargers deliver AC power to the bus. Most BEBs require DC power from the charger, so the AC to DC conversion takes place in the charger itself.

As the fleet grows, additional fueling and charging infrastructure will be required. The adoption schedule was designed so that SunLine quickly builds the FCEB fleet until demand matches the capacity of the existing 900 kg/day station so that it is fully utilized. Once this threshold is met, SunLine will replace retiring buses with BEBs and add chargers to delay the expansion of the hydrogen refueling station. When the target number of BEBs are in the fleet, SunLine will again purchase FCEBs and will expand the hydrogen refueling station at the Thousand Palms Facility to increase its capacity to service the entire fleet. At that time, SunLine will

consider available options such as installing additional electrolyzers to increase onsite production capacity or entering a contract with a supplier to provide delivered liquid hydrogen to supplement the existing capacity. It is anticipated that a delivered liquid station will be the preferred option because it will enable a redundant supply of hydrogen to increase resiliency. Having two independent sources of hydrogen – delivered liquid and on-site generated – will ensure fuel is available if the supply is interrupted from either source. For example, a prolonged power outage would stop the on-site electrolyzer from producing hydrogen and a shutdown at a centralized hydrogen production facility could disrupt the supply chain for delivered hydrogen. Eventually, a satellite hydrogen station will also be installed at the Indio Facility to service the portion of the bus fleet that operates from this location. This station will need to serve approximately 10 buses.

Figure 13 shows the estimated daily fleet hydrogen demand compared to on-site station capacity over time as the fleet of FCEBs grows and fueling infrastructure is added.

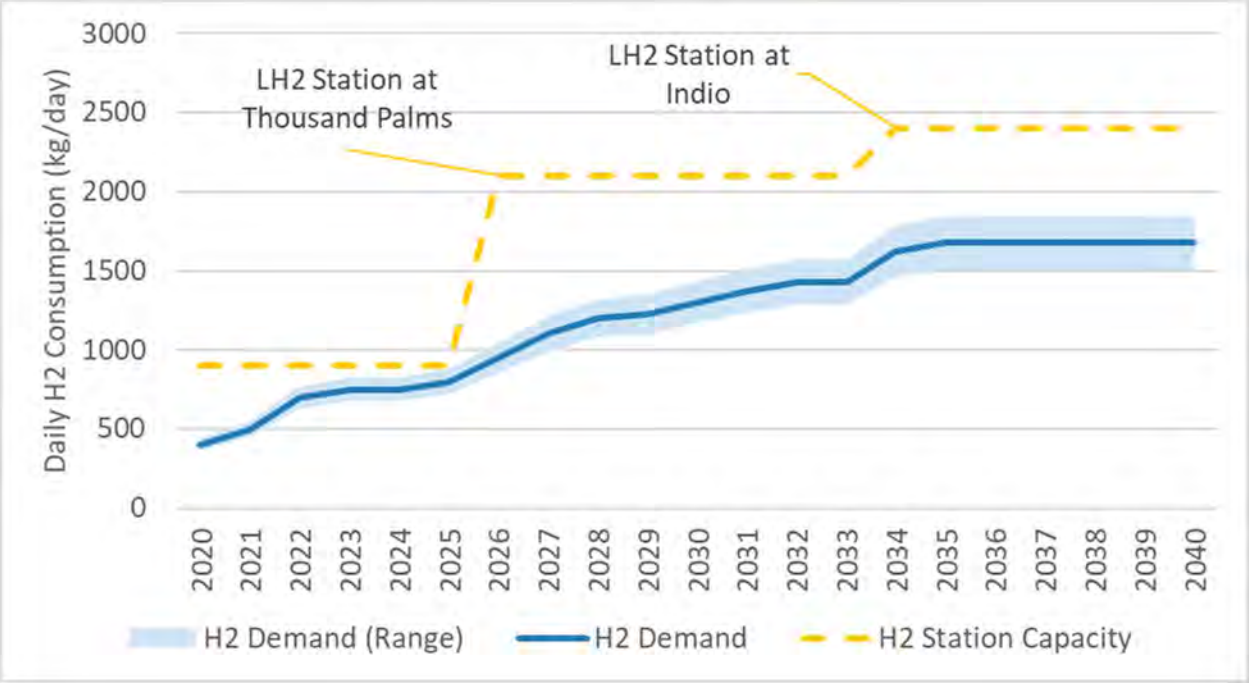


Figure 13. Estimated Daily Hydrogen Demand and Station Capacity

Figure 14 shows the estimated cost to install the necessary hydrogen refueling and battery charging infrastructure. The costs were estimated based on budgetary estimates from potential suppliers. It was assumed that delivered liquid hydrogen stations are deployed at the Thousand Palms and Indio hydrogen fueling stations as opposed to expansion of on-site generation.

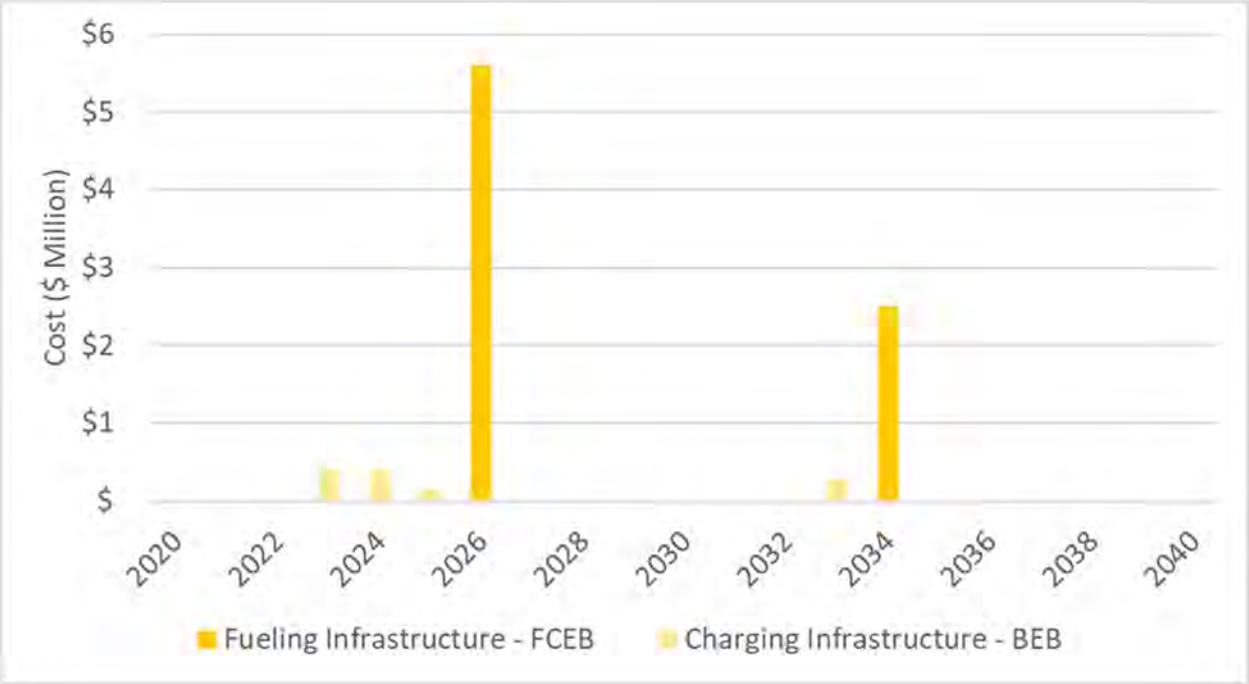


Figure 14. Infrastructure Costs

SunLine's existing maintenance facility at the Thousand Palms location is fully equipped for work on FCEBs and BEBs. It has already undergone safety upgrades to conduct maintenance on hydrogen and high voltage systems, so no further upgrades are required. Minor upgrades will be required at the Indio Facility to install hydrogen sensors to be linked to the safety systems already in place for CNG. No modifications are expected to the bus parking arrangements as a result of the transition, since the plan calls for a 1:1 replacement of buses.

Table 4 summarizes the new facilities and upgrades that will be required relating to the transition of the bus fleet to 100% zero-emission.

Table 4: Facilities Information and Construction Timeline

Division / Facility Name	Address	Main Function(s)	Type(s) of Infrastructure	Service Capacity	Needs Upgrade? (Yes/No)	Estimated Construction Timeline
Thousand Palms	32-505 Harry Oliver Trail Thousand Palms, CA 92276	Hydrogen Fueling Infrastructure	900 kg/day electrolyzer	900 kg-H_2/day	No	2019
			2 Hydrogen dispensers	360 kg-H_2 / 8-hours each	No	2019/2020
			Delivered liquid hydrogen compression, storage, and dispensing station	50 buses	No	2026
		Battery Electric Bus Charging	3 AC/DC BEB chargers	80 kW each	No	Existing
			2 DC/DC BEB chargers	120-150 kW each	No	2023
			3 DC/DC BEB chargers	120-150 kW each	No	2024
			2 DC/DC BEB chargers	120-150 kW each	No	2025
Indio	83-255 Highway 111 Indio, CA 92201	Hydrogen Fueling Infrastructure	Delivered liquid hydrogen compression, storage, and dispensing station	10 buses	n/a	2034
		Battery Electric Bus Charging	3 AC/DC BEB chargers	80 kW each	n/a	Existing
			2 DC/DC BEB chargers	120-150 kW each	No	2033
		Maintenance	Hydrogen detection and safety sensors installed	n/a	Yes	2034

Table 5 shows the types of buses to be deployed at each facility and the electrical utility serving each location. SunLine does not operate in any NOx-exempt areas.

Table 5: NOx-Exempt Area and Electric Utilities' Territories

Division's Name (Same as in Table 5)	Type(s) of Bus Propulsion System	Located in NOx-Exempt Area? (Yes/No)	Electrical Utility
Thousand Palms	•CNG (Until 2033) •Hydrogen •Battery Electric	No	Imperial Irrigation District
Indio	•CNG (Until 2035) •Hydrogen •Battery Electric	No	Imperial Irrigation District

SECTION F:

Providing Service in Disadvantaged Communities

Figure 15 shows the disadvantaged communities within SunLine's service territory as defined by the latest version of CalEnviroScreen.[2]

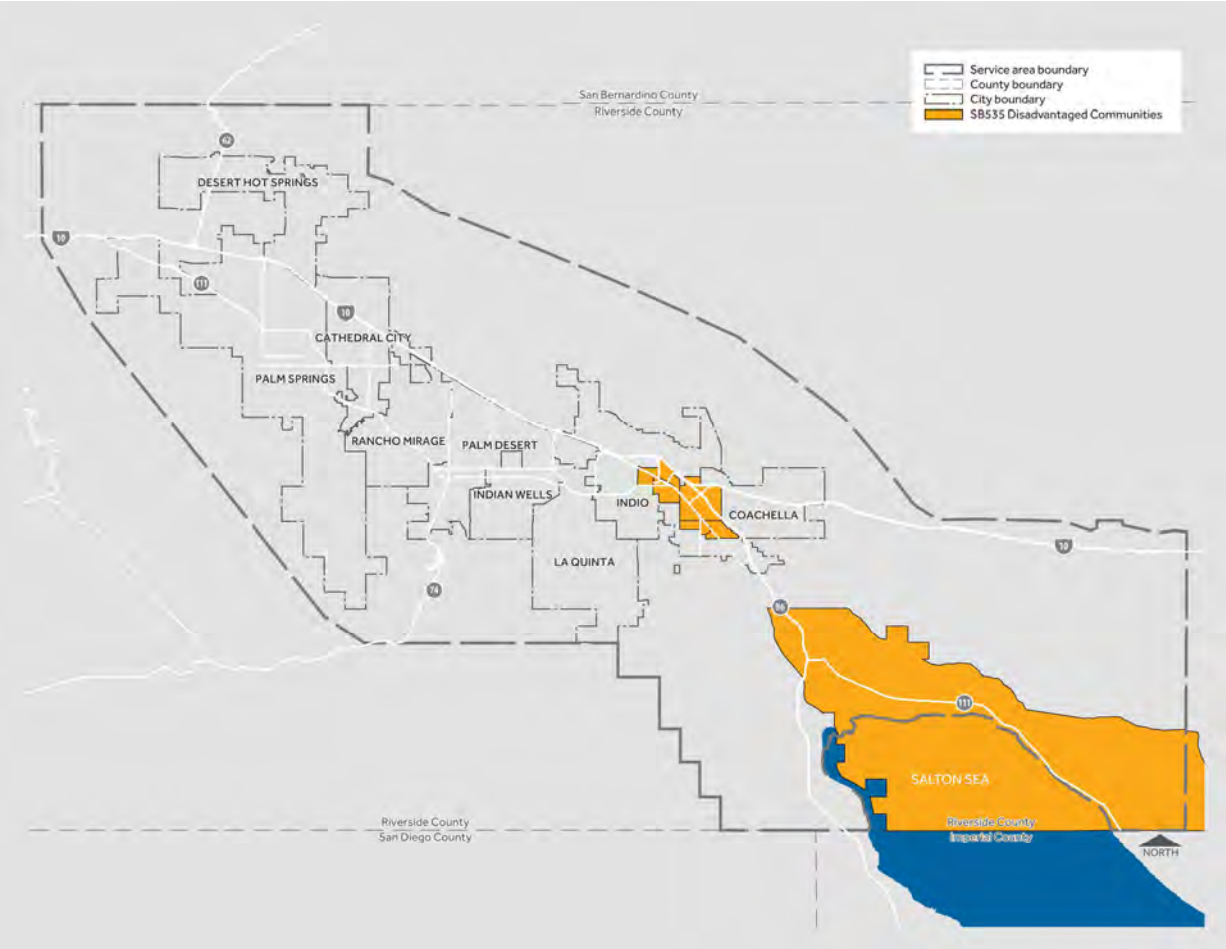


Figure 15. Disadvantaged Communities within SunLine Service Territory

The Census Tracts located within SunLine's service territory are:

- 6065045303
- 6065045502
- 6065045604
- 6065045706
- 6065045707
- 6065049500
- 6065940400

[2] CalEnviroScreen 3.0. (June 2018). SB535 Map of Disadvantaged Communities. Retrieved from http://oehha.maps.arcgis.com/apps/View/index.html?appid=c3e4e4e1d115468390cf61d9db83efc4

Many of SunLine's fixed route and paratransit buses pass through these disadvantaged areas daily. This service is critical as it is relied upon by these communities for essential travel including to workplaces, medical appointments, government agencies, etc. As buses are transitioned from CNG to zero-emission, it will eliminate critical criteria pollutant emissions of nitrogen oxides (NOx), carbon monoxide (CO) and volatile organic compounds (VOCs), along with particulate matter (PM2.5) and greenhouse gases (GHGs). This improvement in air quality will benefit the citizens of the local community, including those living in designated disadvantaged communities that SunLine services.

Pollution and noise resulting from bus operation are a concern for citizens living adjacent to bus transit routes. Buses also drive in stop and go traffic where they spend considerable time idling, wasting additional fuel and creating even more pollutant emissions. FCEBs and BEBs produce no emissions when idling, use far less fuel and offer virtually silent operation. SunLine will operate the zero-emission buses on routes providing service within disadvantaged communities providing cleaner, quieter service to the local ridership.

Assembly Bill 617 (AB 617), established in 2017, is focused on improving public health in communities that experience disproportionate burdens from exposure to air pollutants. Eastern Coachella has been selected as an AB 617 community. To implement AB 617, CARB requires community-focused action to reduce air pollution and improve public health in these communities. A series of community outreach efforts were conducted, during which residents communicated that their primary concern was related to mobile source emissions. Deploying zero-emission buses not only supports the South Coast Air Quality Management District in implementing the AB 617, but also provides vehicle emission reductions that residents have requested.

SECTION G:

Workforce Training

SunLine has extensive experience operating and maintaining FCEBs and BEBs as well as accompanying fueling/charging infrastructure. An FCEB was first piloted at SunLine in 2000. Since then, many generations of FCEBs have been tested and deployed at SunLine. Currently, there are 16 FCEBs in the fleet, the oldest of which has logged over 180,000 miles. In 2016 the first BEBs joined SunLine's fleet.

As a leader in alternative fuels technologies in the transit industry, SunLine leads the West Coast Center of Excellence in Zero-Emission Technology and Renewable Energy (CoEZET). The goal of CoEZET is to share knowledge about the commercialization of zero-emission technologies as well as exploring economic investments in the workforce. Through this center, SunLine provides instruction to internal staff as well as other agencies covering in-service management of zero-emission technologies including fueling systems and fleet operation. SunLine is working to develop an industry certification for this training. Courses currently offered by CoEZET include:

- Leadership and Employee Relations
    - Federal Transit Administration guidelines for ZEBs
    - American Public Transportation Association White Book: Zero-Emission Technical Standards
    - Contract Options for ZEBs
- Zero-Emission Bus Overview
    - Introduction to ZEB technology
    - Differences between ZEBs and incumbent technologies
    - ZEB demonstrations globally
    - Introduction to ZEB fueling
    - ZEB and fueling vendors
    - Industry standards developed and in development
- Zero-Emission Bus Operations
    - Introduction to zero-emission bus technology
    - Differences between ZEBs and incumbent technologies
    - Dashboard familiarization
    - ZEB fueling training
    - Preventing roadcalls
- Zero-Emission Bus Maintenance
    - Introduction to ZEB technology
    - Differences between ZEBs and incumbent technologies
    - Preventative maintenance practices for ZEBs
    - Unscheduled maintenance practices for ZEBs
    - General and high-voltage safety training
    - Basic diagnostics and troubleshooting
- Fiscal Management

    - ZEB grant management
    - ZEB total cost of ownership
    - Funding opportunities
    - ZEB budget development
- Zero-Emission Bus Procurement
    - Federal Transit Administration guidelines for ZEBs
    - American Public Transportation Association White Book: Zero-Emission Technical Standards
    - Contract Options for ZEBs
- Zero-Emission Bus Policies and Regulations
    - Federal Transit Administration guidelines for ZEBs
    - American Public Transportation Association White Book: Zero-Emission Technical Standards
    - Contract Options for ZEBs
- Planning for ZEB Operation
    - Federal Transit Administration guidelines for ZEBs
    - American Public Transportation Association White Book: Zero-Emission Technical Standards
    - Contract Options for ZEBs

As new FCEBs and BEBs join the fleet, SunLine will receive training from the bus manufacturers on operating and maintenance procedures specific to the vehicles. Similarly, training will be provided by equipment suppliers providing hydrogen fueling and battery charging infrastructure. Depending on the specific equipment, training may occur in a “train-the-trainer” format where key staff are trained thoroughly on equipment who pass on basic knowledge to other personnel, or batch training where all or most of the related staff receive instruction from the equipment manufacturer.

SECTION H:

Potential Funding Sources

Execution of this transition plan will require significant capital expenditure. Figure 16 shows the estimated annual capital cost for vehicle and fueling/charging infrastructure procurement.

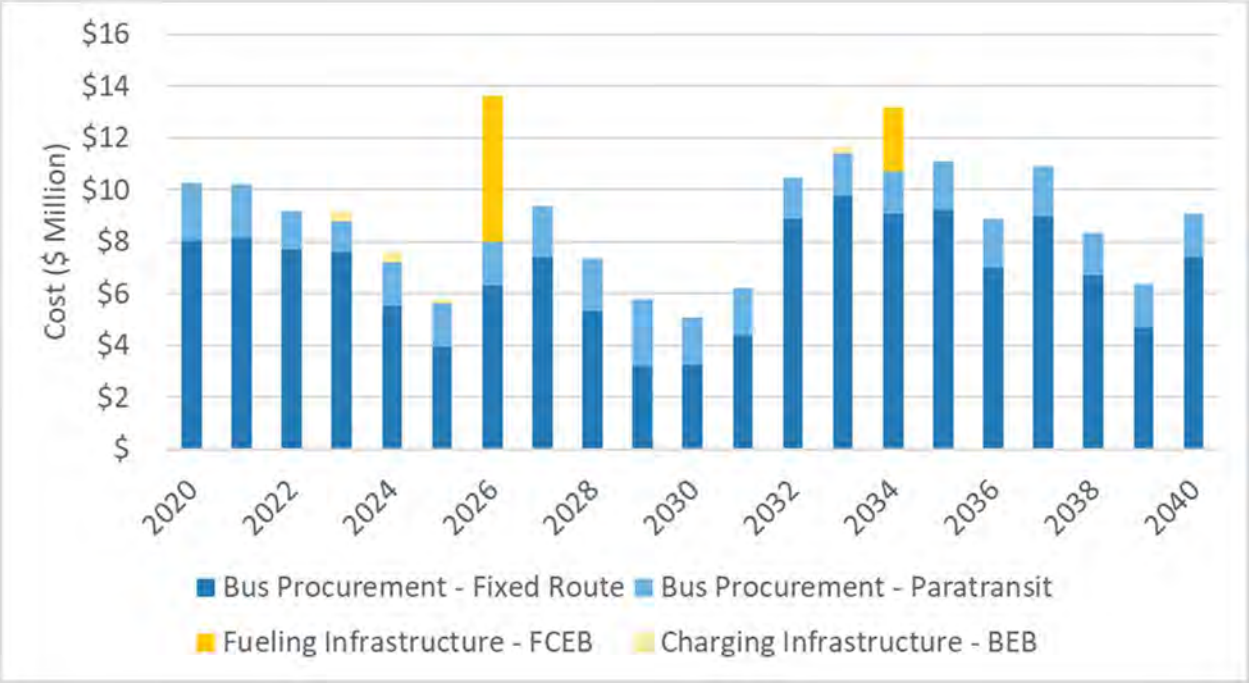


Figure 16. Vehicle Procurement and Infrastructure Capital Costs

Between 2020 and 2040 it is estimated that SunLine will require $173.4 million to pay for all the bus replacements and accompanying charging/fueling infrastructure. To achieve this level of funding, capital must be combined from multiple sources including formula funds as well as special grant funding opportunities.

Formula funds are expected to come from the federal and state governments. The major sources of federal funds are Federal Transit Administration (FTA) Urbanized Area Formula Grants (5307) and Bus and Bus Facilities Program (5339). State formula funds are expected to come from the State Transit Assistance (STA) Program.

Future formula funding from these three sources was estimated based on the level of funding previously received and the percent allocation of these funding sources historically to capital purchases. It was assumed that the funding would increase annually at a rate of 1.5%, which is consistent with historical trends.

Table 6. Formula Funding Summary

Funding Source	Estimated 2021 Funding	Estimated 2021-2040 Funding
FTA 5307	$1,570,000	$36,410,000
FTA 5339	$630,000	$14,520,000
STA	$2,400,000	$55,540,000
Total	**$4,600,000**	**$106,470,000**

Special grant funding will come from a variety of sources, but it is difficult to predict what programs will be available in the future. SunLine expects to apply for a combination of competitive grants and voucher programs to directly fund procurement of ZEBs and accompanying infrastructure.

Table 7 outlines potential special funding sources. SunLine has applied to these programs in the past and is likely to again depending on program specifications.

Table 7. Potential Special Funding Sources Summary

Type	Name	Purpose	Offering	Funds Available
Competitive	FTA 5339 (b) Bus & Bus Facilities	Bus procurement and related facilities	80% of capital costs	$457 million (FY2020)
	FTA 5339 (c) Low or No Emission Vehicle	ZEB procurement and fueling / charging infrastructure	85-90% of capital costs	$130 million (FY2020)
	EPA Targeted Airshed Grant Program	Reduce air pollution in selected nonattainment areas	Up to 100% of capital costs	$107 million (FY2019/20)
Voucher	VW Mitigation	ZEB procurement	$400,000/FCEB; $180,000/BEB	$130 million (until exhausted)
	HVIP	ZEB procurement	$300,000/FCEB; $175,000/BEB	$142 million (FY2019 - currently exhausted)

SECTION I:

Start-up and Scale-up Challenges

The most significant challenge facing transit agencies through the start-up and scale-up phases of the zero-emission transition is the financial requirements. ZEBs are more expensive to procure and new infrastructure is required to operate and maintain the vehicles. Financial support from the federal, state, and local governments will be necessary to achieve the targets in the ICT regulation. The price gap between ZEBs and CNG buses is expected to reduce over time as manufacturing scales up and technology improves, so financial incentives are particularly important in the near- to mid-term.

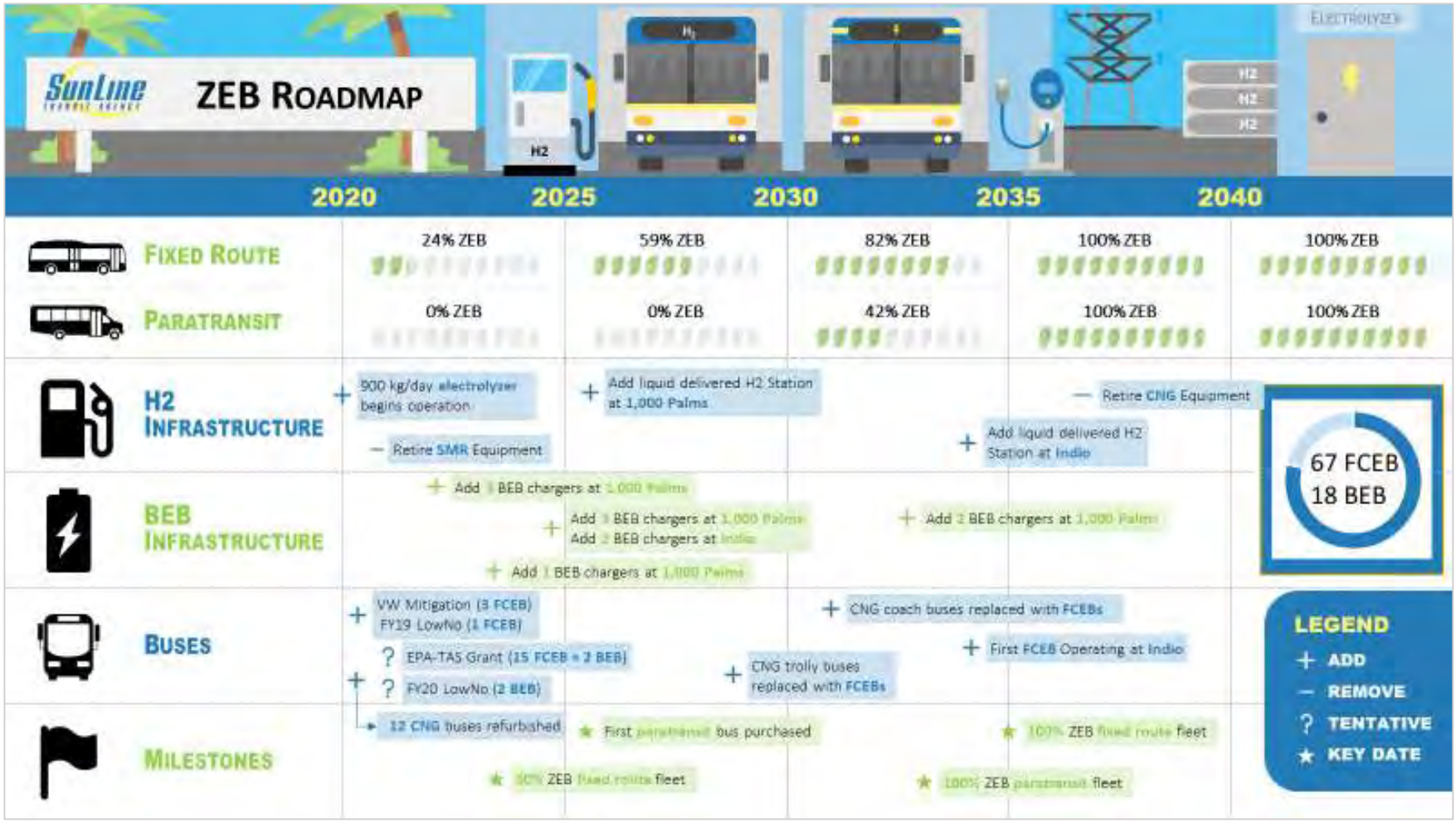
The per vehicle cost of buses is impacted by procurement volumes. With each agency placing orders individually over the next few years, this continues to pressure costs. It may be possible to reduce the per vehicle cost through a state-led bulk procurement of BEBs and/or FCEBs that could incorporate demand from many agencies.

Funding should also be made available for workforce training. To ensure a successful transition, agencies must prepare staff for correct operation and maintenance of ZEBs. While ZEBs require less maintenance than conventional buses because they include fewer moving parts, they require new protocols and procedures to ensure safe and successful operation. The use of regenerative braking also alters ideal driving characteristics. Drivers must be adequately trained to ensure vehicles are operating at optimal performance. Organizations providing training like the West Coast Center of Excellence in Zero-Emission Technology will be an invaluable resource to agencies as they transition to zero-emission.

A challenge facing long-term transition planning is the uncertainty around performance and availability of zero-emission paratransit and over-the-road vehicles. At present, zero-emission paratransit and over-the-road vehicles are not commercially available in North America. Little data is available to forecast vehicle performance or cost. Pilot scale deployment of FCEBs and BEBs in these transit applications would benefit the industry by providing key insights into vehicle operation.

It is imperative that the CARB provide funding to transit agencies across the state to support the transition to zero-emission vehicles. As fleets are transitioned, agency capital and operating budgets will increase, and funding will be required to maintain the level of service provided to residents. In addition to funding support for bus and infrastructure purchases, CARB should support training/educational programs as well as deployment of new bus platforms like paratransit and over-the-road vehicles.

APPENDIX I:
SunLine Roadmap



APPENDIX II:
Board Resolution