CORONA TRANSIT

Comprehensive Operational Analysis

Final Report

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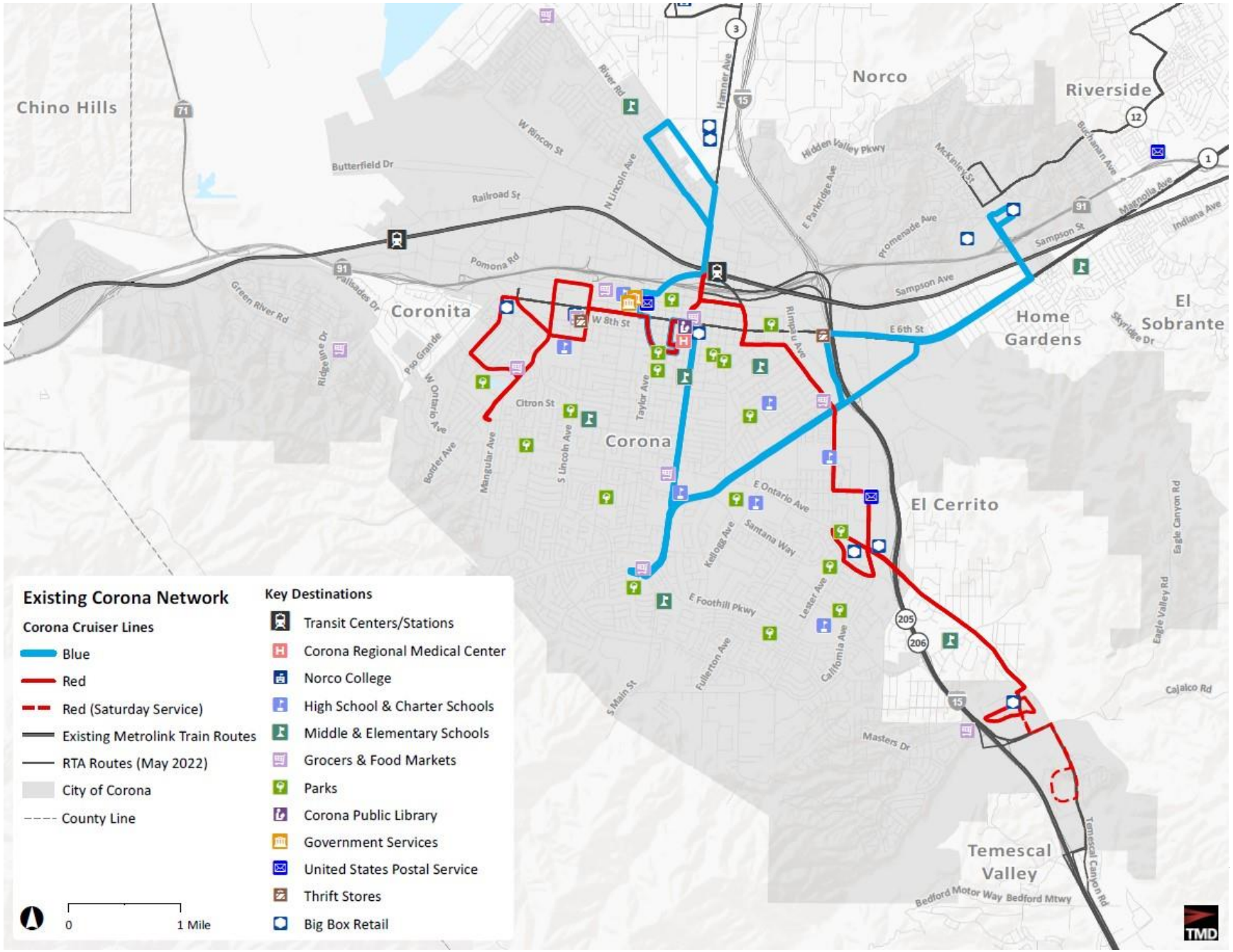
Introduction

In 2022, the City of Corona started the process to undertake a Comprehensive Operational Analysis (COA), to evaluate the City of Corona's public transportation system, the Corona Cruiser. The purpose of the COA is to identify strengths and opportunities for improvement. The analysis aims to analyze the current transit system to produce a comprehensive plan that enhances customer experience, improves services within the program's financial capacity, and outlines steps to implement service alternatives to ensure the program's sustainability. The City undertook the COA to analyze and support the business planning function of Corona's transit services. The COA resulted in an understanding of current use and performance of the system, and how the performance and customer use of the system has changed over time, especially post-COVID. Where necessary, corrective actions were identified and will be implemented to respond to the changing conditions, strengthen services that needs attention, and target resources to developing and emerging markets. As a result, the COA helps define actions and improvements to the system with the objectives of increasing service efficiency and effectiveness.

This Final Report presents the analysis of the Corona Cruiser, and it sets out a reimagined public transit network to better serve Corona's residents and visitors. The analysis of the Existing Conditions, results from public outreach, the guiding principles that informed the network scenarios, and the network scenarios and corresponding financial plan are included in this final report.

MAP 1: CORONA CRUISER SYSTEM MAP AND CONNECTING SERVICES



Existing Conditions

The Existing Conditions in the Corona Cruiser service area were studied in two parts, the Market Assessment and the Service Evaluation. Both components informed the development of the Guiding Principles and the Service Recommendations.

Market Assessment

The Market Assessment presented a profile of the community's demographic characteristics, travel patterns, and a number of other factors that help determine where public transit can be successful. The Market Assessment identified a diverse mix of land use patterns in the City of Corona, which offer some barriers to providing direct transit service that is useful for all passengers through the week. The population is distributed largely evenly within city limits, but there are a few particular areas with especially high density: the series of apartment complexes along River Road in North Corona, the apartment complexes on McKinley Street in Northeast Corona, and the neighborhoods of West Corona, south of SR-91 and north of Ontario Avenue (predominantly west of Lincoln Avenue and east of Avenida del Vista). While these communities are not far from each other, most of them are separated by SR-91 or I-15 and industrial zones that function as a buffer between the residential communities with higher population density. More employment centers, including those same areas along the freeways in Corona, could be served in peak commuting times to gain more potential riders. Downtown Corona provides an opportunity for enhanced public transportation services due to its clear grid-like street network, and diverse mix of land uses, including housing, jobs, and educational centers. The areas farther southeast of Downtown Corona in particular are much less densely populated heading toward Temescal Valley on both sides of I-15. The exception to this is in the Dos Lagos area, where a mix of single- and multi-family development exists and surrounds two shopping and mixed-use centers.

Additionally, the project team made use of the travel demand modeling online platform Replica, which gathers anonymous location-based data from cellphone carriers, credit card processors, the U.S. Census Bureau and more, to assess the origin-destination travel patterns for all trips that start and end within the City of Corona service area on an average day (**Map 2**). These general community travel patterns revealed a few locations that the Corona Cruiser does not currently serve, including the areas immediately north of SR-91, both toward the North Corona and Downtown Corona areas. The most important finding from the Replica data is that the commercial area located at the Ontario Avenue and California Avenue intersection is a major trip generator, which is reasonable based on the diversity of shopping and employment destinations in the shopping centers on this corridor. The destinations in the area include Walmart, Sam's Club & Albertsons, which are major, all-day trip generators.

The data from Replica also illustrates that there are additional heavy travel patterns within smaller areas including in the neighborhoods of West and South Corona. These are lower density areas which are not easily served on fixed route transit, but their proximity to some of the major corridors and shopping

centers means that they were possible candidates for other potential transportation options including on-demand or deviated fixed route service, so that residents of these neighborhoods can make trips to jobs, grocery stores, schools, and parks.

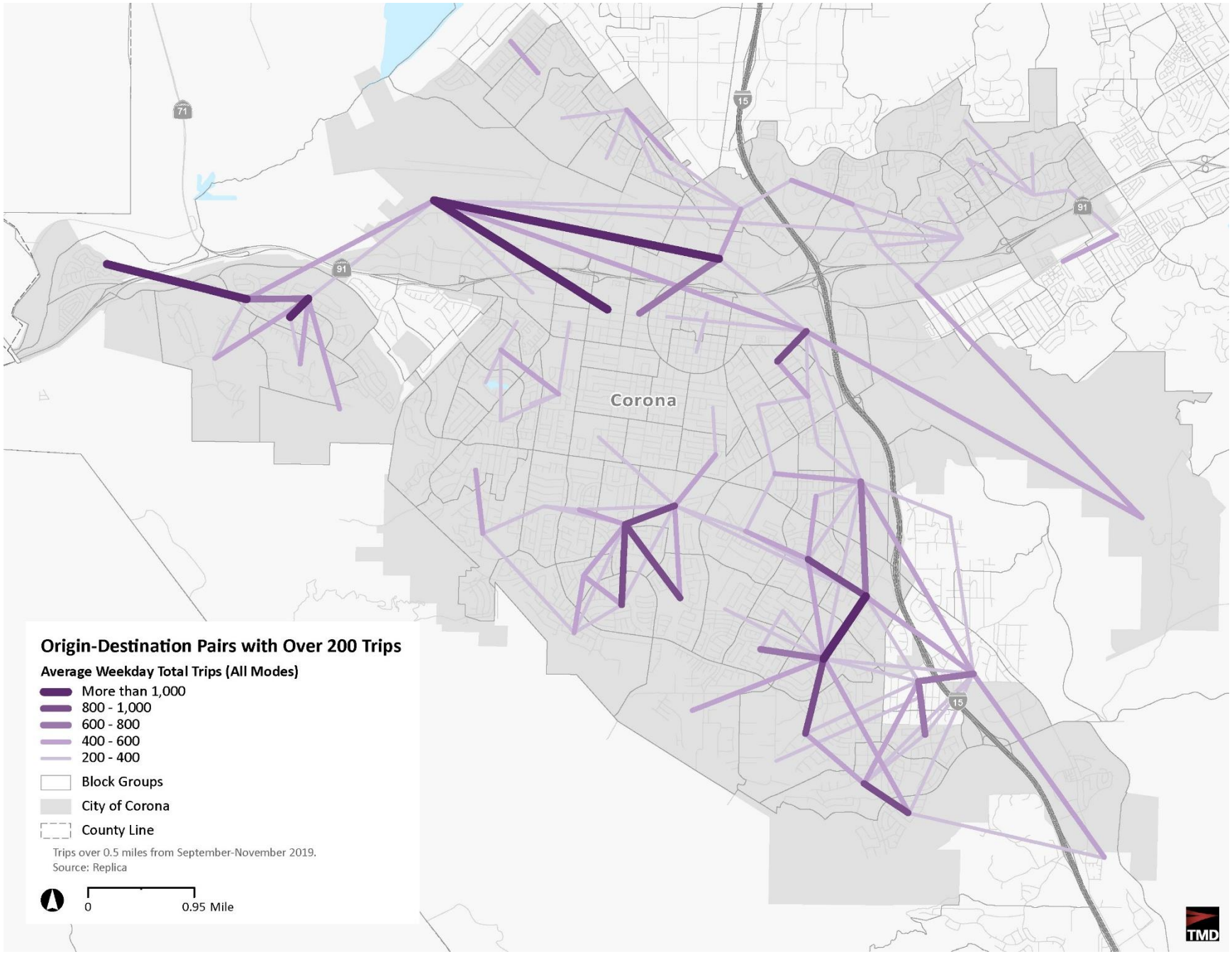
The Market Assessment also identified a few key population characteristics that are common determinants for higher transit ridership—including households without access to a vehicle, low-income households, youth, seniors, employment, physical disability, and minority populations—and applied these characteristics to the Corona Cruiser service area. The resulting map generated from this analysis establishes the transit demand potential of areas within the City of Corona based on the density of these characteristics.

The areas that score highest on the transit demand potential map (**Map 3**) include:

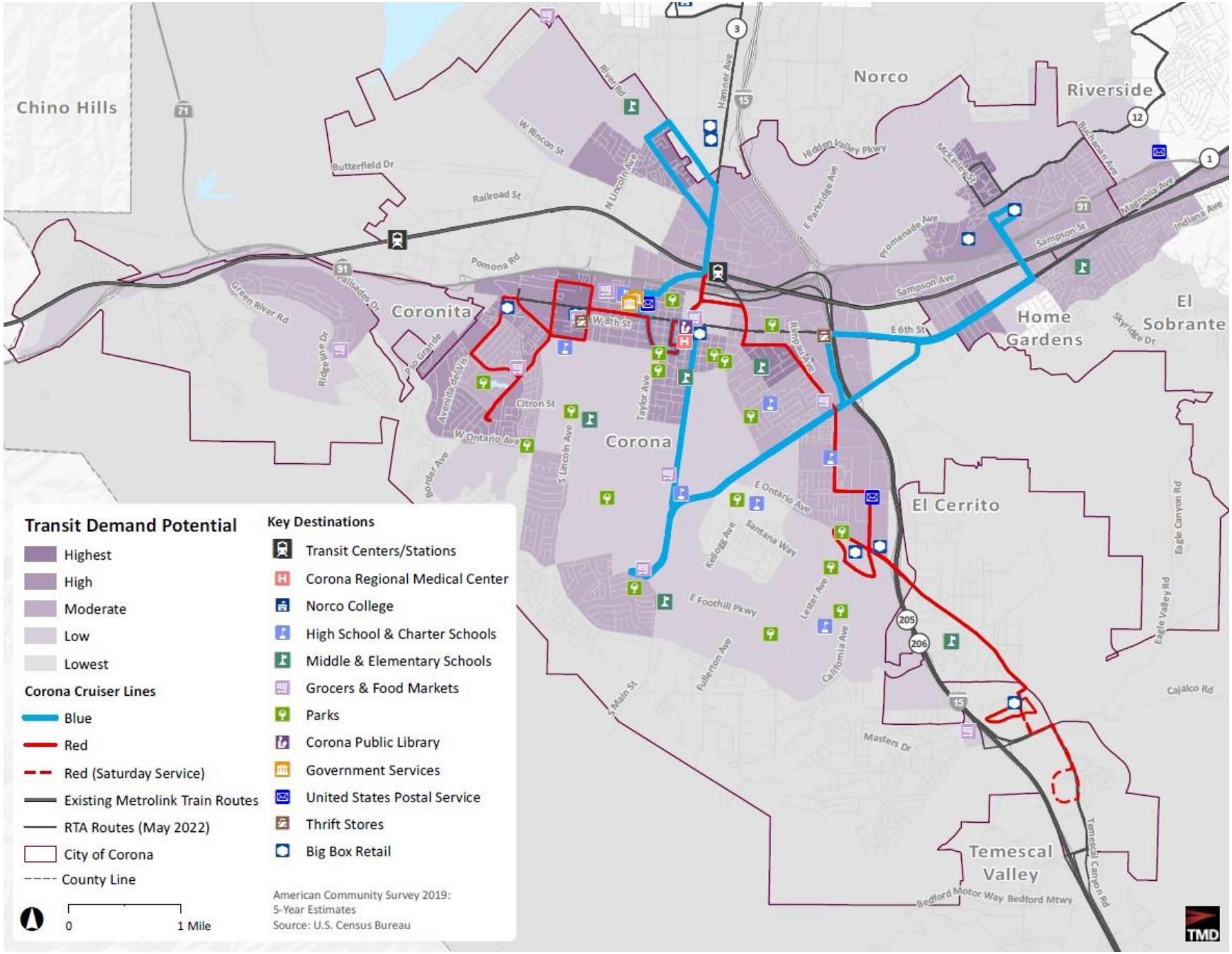
- The neighborhood just east of Downtown Corona between Fullerton Avenue and Rimpau Avenue where there are a number of apartment complexes currently served by the Red Line.
- The area west of Downtown Corona between Lincoln Avenue and Avenida del Vista with a number of apartment complexes and some mixed-use retail is also served by the Red Line.
- The apartment complexes along River Road where the Blue Line starts and ends its service.
- The neighborhood immediately north of the Walmart at McKinley St., where there are apartment and townhomes, which is a few blocks away from where the Blue Line ends its eastbound trips and begins its westbound trips.

It is a positive factor that all the areas listed above as exhibiting high potential transit demand are currently served by the Red or the Blue Lines—especially areas with higher density multifamily homes as well as mixed used retail and employment destinations—but the Service Assessment helps to explain why this existing coverage does not generate significant ridership for the Corona Cruiser.

MAP 2: GENERAL CORONA COMMUNITY ORIGIN-DESTINATION PATTERNS



MAP 3: TRANSIT DEMAND POTENTIAL



Service Evaluation

The Service Evaluation offered a statistical analysis of operational metrics including boardings, productivity, and on-time performance to establish a baseline for the current Corona Cruiser service. This part of the project analyzed data collected from the ridecheck to show where, how, and when people are riding, helping to identify opportunities to make the system more useful for the community as well as enhance the system's financial effectiveness. The hours that a transit system operates, or the span, as well as the frequency that buses arrive at a location are key characteristics of a transit system. They define how useful the system is for a passenger who is trying to make a trip, and the most important criteria for attracting new riders to the system. With ridehailing apps like Lyft and Uber offering curb-to-curb service with relatively short wait times, it is more important than ever for a transit system to offer frequent service that is available when people want to travel.

FIGURE 1: BLUE & RED LINE KEY PERFORMANCE METRICS

	Boardings	Productivity (boardings/hour)	Frequency (minute)	Span
Weekday	203	8.1	60	6:30 AM – 7:09 PM
Saturday	76	5.5	60	8:52 AM – 3:50 PM
Weekday	179	7.2	60	6:30 AM – 7:05 PM
Saturday	82	5.1	60	9:00 AM – 5:09 PM

SOURCE: 2022 CORONA CRUISER TRANSIT PASSENGER SURVEY & RIDECHECK

The Corona Cruiser, the City of Corona's public transportation system, is comprised of a fixed route network of two routes, the Blue and Red Lines, which operate from Monday to Saturday (**Figure 1**).

The Red Line operates between Sixth at Smith Center to Target at Cajalco Road in the Crossings at Corona shopping center, with an additional southern segment to The Shops at Dos Lagos on Saturdays. The Red Line serves 81 stops on weekdays and 84 stops on Saturdays. This route travels east-west through Downtown Corona before heading south on Rimpau and California Avenues. The Blue Line connects the River Run Apartments to Walmart at McKinley in the Corona Hills Plaza shopping center in Northeast Corona, primarily along Main Street and Magnolia Avenue. The Blue Line serves 94 bus stops including eight stops that are shared with the Red Line. This route traverses north-south in Downtown Corona before connecting on toward the southern, eastern, and northeastern areas of the City of Corona, with intermediate connections to the Metro at Main mixed-use apartment complex and shopping center, Lee Pollard High School and Citrus Hills Intermediate School, and Mountain Gate Park.

Collecting and evaluating current ridership data was an essential element of the Service Evaluation. Manual on-board counts for weekday and Saturday service were collected in February and March 2022 on both the Blue and Red lines. **Figure 2** summarizes the highest average daily weekday ridership stops in the Corona Cruiser system.

FIGURE 2: HIGHEST RIDERSHIP CORONA CRUISER STOPS

	Stop Name	Number of Boardings
1	River Run Apartments	32
2	1189 E. Magnolia Av & Rimpau Av @ Citi Bank	24
3	479 N. McKinley St @ Walmart	22
4	19530 Temescal Canyon Rd @ Envoy Av	19
5	784 N. Main St & Parkridge Av	16
6	1190 E. Magnolia Av & Rimpau Ave	15
7	Target @ Cajalco	15
8	650 S. Main St & Sixth St @ Front of Library ("Corona Library")	14
9	1693 S. Rimpau Av @ Centennial H S	14
10	13201 Magnolia Av & McKinley St @ Arco Gas Station	12

SOURCE: 2022 CORONA CRUISER TRANSIT PASSENGER RIDECHECK

The majority of boardings occur at the River Run Apartments in North Corona, as well as on two locations on the Blue Line: Magnolia Avenue at Rimpau Avenue and McKinley Street at Walmart. The stop with the next highest number of boardings is located in South Corona near El Cerrito Middle School at Temescal Canyon Road at Envoy Avenue. These suggest a few common use-cases for the Corona Cruiser: trips from densely populated residential areas where there are apartment complexes, trips from school, and trips to shopping and employment centers. These are not common regional transfer locations, suggesting that Corona Cruiser passengers are mostly traveling locally within city limits. Additional stops with higher ridership are located near shopping areas (Main Street & Parkridge Avenue, Target at Cajalco Road, Magnolia Avenue & McKinley Street, etc.), Downtown Corona (Main Street & Sixth Street at Corona Library), and local high schools (Centennial High School).

Finally, it is important to note that the Corona Cruiser connects to other regional transportation services at the Corona Transit Center (Corona North Main Station) and at various other stops in the system, including on Sixth St. and Magnolia Avenue. Connections to RTA routes 1 in particular are popular with riders traveling between Corona, La Sierra, Downtown Riverside, and UC Riverside. At the Corona Transit Center, both the Blue and Red Lines offer early morning and evening connections to Metrolink train service and RTA bus service. Metrolink offers one-seat westbound service through Orange County to Los Angeles, Irvine and Oceanside and eastbound service through Riverside County to Downtown Riverside, San Bernadino, and Perris. These connections are important for riders, according to the passenger and community surveys, which demonstrated that both current riders and non-riders were familiar with other regional public transit services on RTA and Metrolink and rely on them to get to their destinations.

Impacts on Recommendations

The Market Assessment and the Service Evaluation provided the foundation for the development of the Final Service Plan. There were a number of insights that the project gleaned from this process:

1. **Ontario Avenue and California Avenue intersection is a key trip generator.** The current Corona Cruiser Red Line serves this area, but the Blue Line does not; passengers on the Blue Line who may live just to the North of Downtown Corona (e.g., along River Road) or on South Main Street will currently have to travel all the way to the Walmart in the far northeast area of the city at McKinley Street, whereas there is a Walmart much closer at the intersection of Ontario Avenue and California Avenue. Thus, it was determined that there was an opportunity to streamline the route alignments, resulting in straighter and simpler routes for the customer to understand that avoid time consuming route deviations and serve more destinations faster and more directly, while maintaining transit access to these areas.

2. **Limited frequent service.** Another key area in which the Corona Cruiser could be improved is the frequency of the Corona Cruiser. Frequency is critical to transit success because it impacts the out-of-vehicle passenger wait time, a critical component of the customer experience. Services that operate every 60 minutes or longer, commonly referred to as "lifeline coverage," require that people plan their trips around transit schedules, and the effect of a delayed bus is very significant, as is the case with both Corona Cruiser bus routes during rush hour. This negatively impacts total ridership. Higher frequency services, especially those operating at "spontaneous-use frequencies" or every 15 minutes or better, (as RTA Route 1 provides on 6th Street in Corona) positively influence the competitiveness of transit because passengers can show up to a bus stop without consulting a schedule because the wait for the next bus arrival will be fairly short. Both the Corona Cruiser Blue and Red Lines offer lifeline coverage throughout the City of Corona. They average 60-minute headways during every day that the service is running.

3. **Limited span of service.** One factor that was identified as an area that the Corona Cruiser should address is the span of service. In the 2022 Rider Survey, the need for earlier and later service was mentioned by a number of riders, with various individuals mentioning that current service hours do not accommodate their work schedules. Many people who work outside the traditional 9:00 AM to 5:00 PM workday may have difficulty using transit to get to and from work due to this limited service. Similarly, a reduced span of service on Saturdays, travel is even more limited, which makes shifts that start before 9:00 AM or end after 5:00 PM unreachable on the Corona Cruiser. Without any service available on Sundays—despite the community demand for trips to work, recreation, shopping, dining, religious services, and more—the Corona Cruiser does not provide mobility options for those who rely on it. This forces members of the community to find alternative modes of transportation that can better accommodate their schedules. Unfortunately, financially constrained scenarios do not allow for an increase in span of service, although a variation of the recommended scenario included in initiating Sunday service at a cost of five percent higher than the primary scenario.

4. **Small service area with short trips.** The City of Corona is relatively small, and the majority of trips within the city are less than five miles, a distance that can be covered by a bicycle (especially an e-bike) or a scooter in under an hour. Even walking can sometimes prove faster and more convenient than waiting for and riding the bus, especially in Downtown Corona, although this is not a viable alternative for many passengers due to weather conditions, age, mobility limitations, and familiarity with the current service alignment. The Corona Cruiser can position itself to be more competitive for attracting passengers with shorter trips by increasing service frequencies and providing more direct connections between destinations than the current network offers. Due to the current budget constraints of the Corona Cruiser, improving frequency significantly is difficult without severely reducing the bus network's coverage across the city. This area was studied more throughout the later phase of the project.

5. **Low usage, but opportunity.** Overall, the ridership is very low throughout the day on all days that the Corona Cruiser is in service. However, there were segments and stops on both the Blue and Red Lines which experience consistent and relatively high ridership for the Corona Cruiser system. These areas that demonstrate where transit service is currently useful and popular with riders offered initial ideas for how the system could be redesigned by building upon its strengths and offering expanded service in other areas.

6. **Opportunity to streamline service.** For both routes, it was evident that there was an opportunity for the route to be more direct which could allow riders to get to their destinations in less time. Altogether, the data suggest that the system is primed for significant realignment and modifications to improve public transit performance for riders and make the system more attractive for new potential riders by employing innovative transit platforms in Corona.

Existing Conditions Key Findings

In summary, the project team determined the following set of key findings from the Market Assessment and Service Evaluation, which were categorized through four study areas:

Coverage:

- The areas that exhibit high potential transit demand are currently served by the Red or the Blue Lines.
- Current riders want service to be more frequent and go to more destinations.
- Non-riders and former riders also express support for providing more frequent service and serving more destinations.

Reliability:

- The Corona Cruiser has an outdated schedule which is impacting on-time performance and service reliability. Although the frequency is supposed to be every 55 to 65 minutes, the route deviations cause the buses to miss the schedule often throughout the day.

Productivity:

- Ridership is generally lower than industry standards, although ridership varies during peak periods in the morning and afternoon. There are segments with relatively higher productivity on key corridors and around major destinations (such as shopping centers and schools).

Cost:

- The Corona Cruiser operates within budget, so there is no urgent need to address costs with any proposed changes. Keeping costs within the projected budget was central for improving transportation in Corona.

Public Involvement

Public input was central to the City of Corona's COA process. The public was consulted over the course of the project in two phases. This section provides an overview of the Phase I outreach efforts. A summary of the Phase II efforts is included in the next section.

Phase I Overview

Phase I took place in conjunction with the Market Assessment and Service Evaluation and include two key components: On-Board Rider Survey and Community Survey.

On-Board Rider Survey

The system-wide on-board survey was conducted from late February to early March 2022, and the survey collected information on passenger origins and destinations, trip characteristics, and demographics. The objective of the survey was to examine travel behavior and demographic characteristics of existing Corona Cruiser riders to understand how passengers use the system and learn from riders about the strengths and weaknesses of the existing system. The survey also solicited rider feedback on several elements of Corona Cruiser service. Surveyors rode every weekday and Saturday trip and offered surveys to all on-board passengers. Participants had the option to take the survey in English or Spanish. A total of 123 surveys were collected, 73 during weekday service and 50 during Saturday service. The Bus card ad used to promote the on-board survey is displayed on the next page. These were used to create an overall profile of the Corona Cruiser rider. The 73 surveys collected during weekday service, represented approximately 38% of weekday riders, and the 50 surveys collected during Saturday service, represented 63% of Saturday riders. These numbers are high for an onboard survey of a transit system, and the data should be considered representative of riders' preferences. A summary of the results from the onboard survey is presented in the infographic on page 14.

IMAGE 1: INTERIOR BUS AD

ONBOARD SURVEY
Summary Results

WHO RIDES THE CORONA CRUISER?

Demographic info

24% Have a valid driver's license

hello
58.4% Speak English

Hola
35.2% Speak Spanish

$10,000-$24,999 58% Median household income

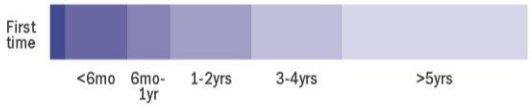
36% Have a vehicle

22% Employed

16% Retired

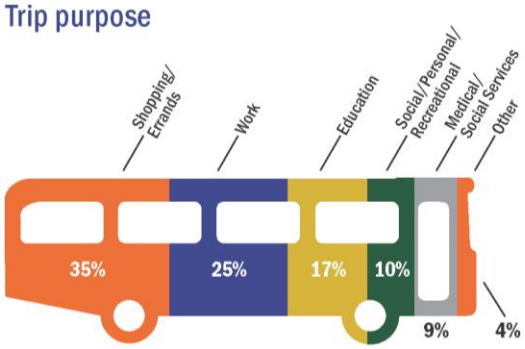
K-12 students

Length of time using the Corona Cruiser



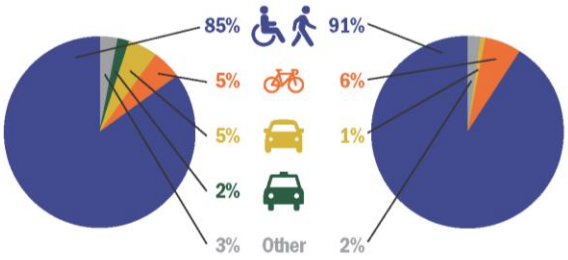
HOW DO THEY RIDE?

Trip purpose



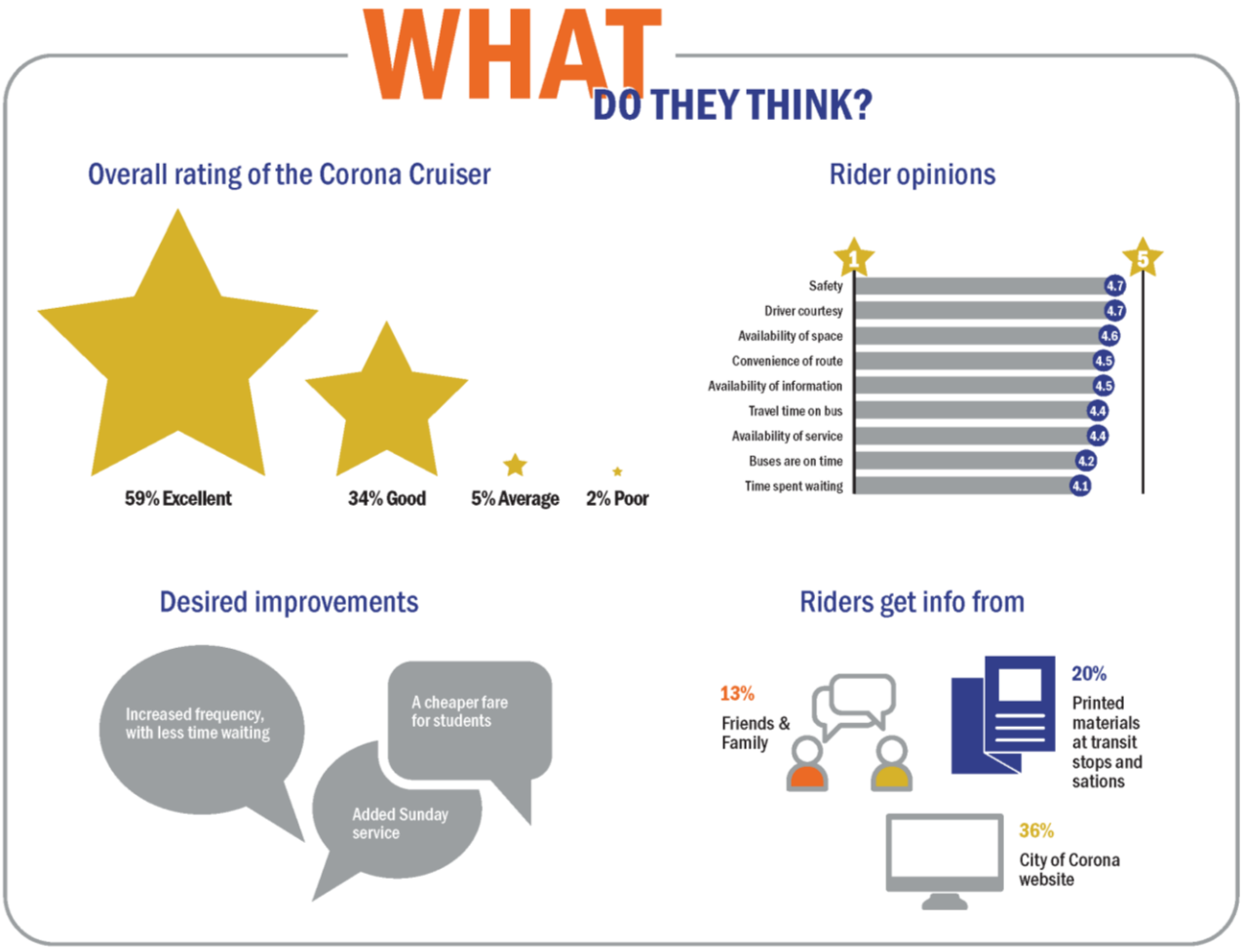
Riders access the Corona Cruiser by

Trips completed by



How often they ride

29% 3-4 days a week
26% 5 days a week
23% 1-2 days a week
17% 6 days a week
3% Less than once a month
1% 1-2 days a month



The survey also asked if riders made a transfer. Transfer activity was documented between the Red and Blue Lines, and between the Red Line and RTA 1 (**Figure 3**). Only 22 percent of riders made at least one transfer. Overall, 84 percent of trips with at least one transfer began and ended on the Corona Cruiser. The Red Line received the most transfers; 40 percent of transfers made were to the Red Line. The Red Line also has a stronger connection to RTA compared to Blue; there were eight transfers between the Red Line and RTA and only three between the Blue Line and RTA.

FIGURE 3: TRANSFER ANALYSIS CONNECTING SERVICES

Transfer to	Count	%		Count	%
Blue	11	28%	CC	27	68%
Red	16	40%			
RTA[1]	2	5%	RTA	13	33%
RTA 1	10	25%			
RTA 3	1	3%			
	40	100%		40	100%

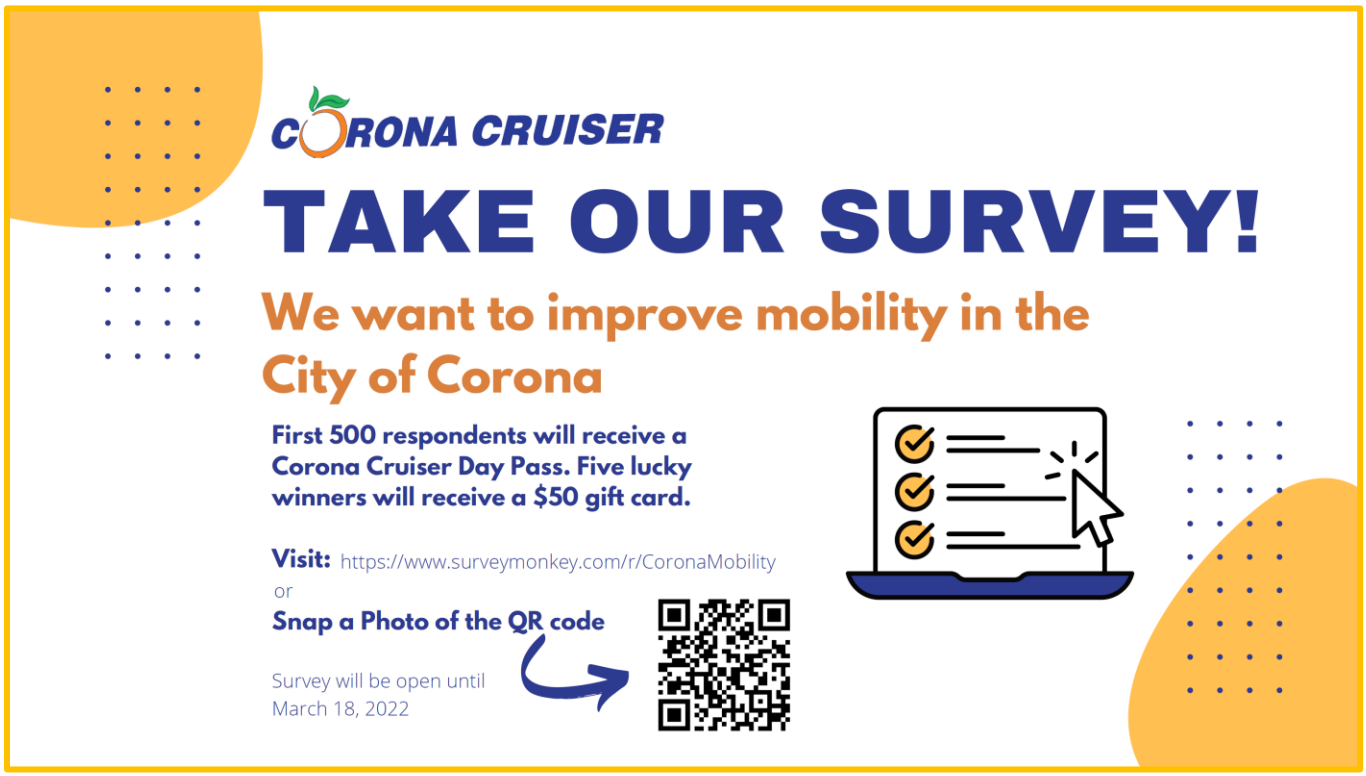
SOURCE: 2022 CORONA CRUISER TRANSIT PASSENGER SURVEY & RIDECHECK

Community Survey

Phase I of the public outreach process also included the 2022 Public Transportation Community Survey. The Community Survey was conducted primarily online, with select outreach events to collect additional paper responses, primarily from seniors and low income households. A total of 592 survey reponses were received. In the survey, respondents were asked a number of questions to determine which of the three resident categories they belonged to—current riders, former riders, and non-riders—and then they were asked specific questions depending on the category they chose. Almost 50% of the respndents never used Corona Cruiser or Dial-A-Ride, while 13% of the respndents were former users. The charts on the following pages illustrate the experience that the community has with public transportation in Corona as well as how residents' preferences compare across the three categories.

Image 2 below is an example of the flyers and posters that were used to inform the public about the survey. The survey was promoted online via the City of Corona's website, social media, flyers/posters at key locations throughout the city and on buses, outreach with Corona-Norco Unified School and Norco College, direct emails to all affordable housing complexes, "boots on the ground" efforts: visited all senior complexes, door knocking at Vintage Terrace, attended multiple senior foodbank events and the senior festival at the River Run Affordable Senior Apartments. The following incentives were provided to encourage participation: 1) five (5) $50 gift cards, and 2) 1-day bus pass to all participants.

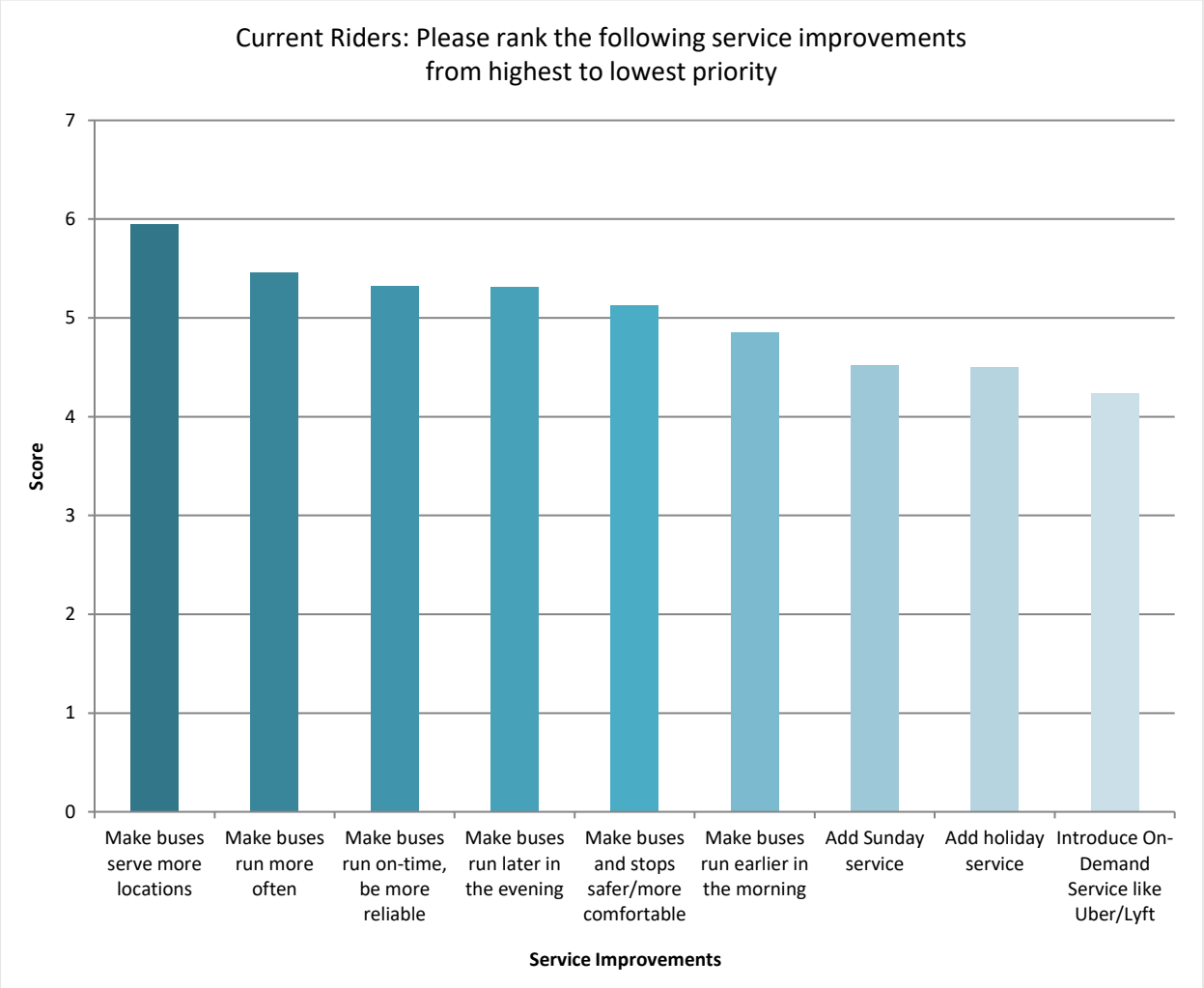
IMAGE 3: COMMUNITY SURVEY OUTREACH AD



One of the most important questions in the survey involved ranking a series of service improvements from highest to lowest priority. While all of the service improvements have their merits, this is a fundemantal question that the City of Corona can use to direct its attention and resources in order to provide more useful and attractive mobility options for the residents of the city, including those who may or may not currently ride the Corona Cruiser. All three resident categories were asked this question, so it is possible to compare across the three groups.

First, current riders prioritized making buses serve more locations and making buses run more often. This is in line with industry research about what public transit riders value the most. Coverage and frequency are the most important to current riders in Corona. Introducing on-demand services like Uber and Lyft was ranked the lowest priority along with adding holiday and Sunday service.

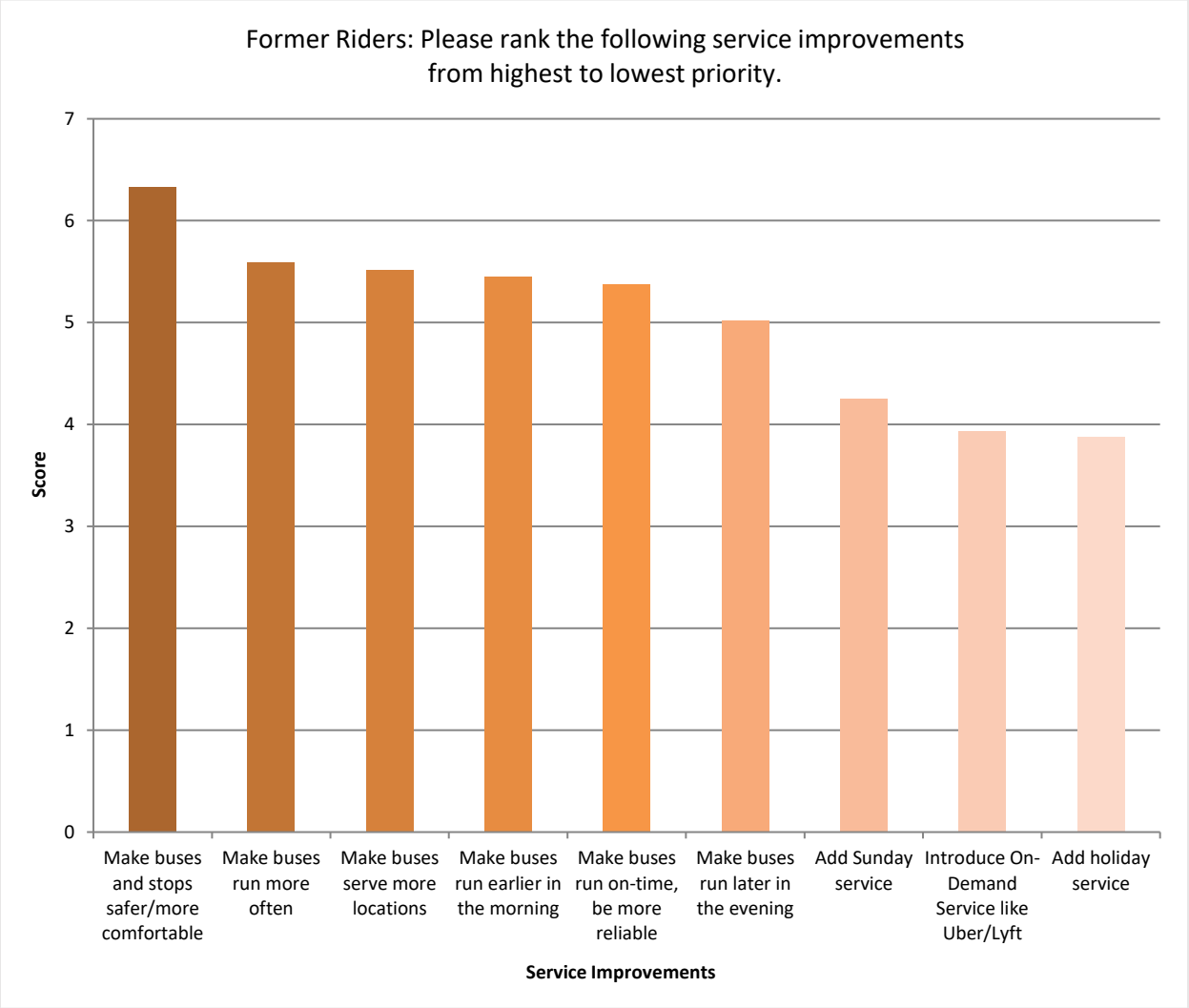
FIGURE 4: CURRENT RIDERS QUESTION #1



SOURCE: 2022 PUBLIC TRANSPORTATION COMMUNITY SURVEY

Former riders are perhaps the most important for this analysis because they were riders of the Corona Cruiser or Dial-A-Ride, but they found alternatives that work better for them. If the City of Corona can make the right improvements and effectively explain these changes to the community, these former riders will hopefully reevaluate the available services and return to the system. Former riders ranked making buses and stops safer/more comfortable the highest on the list. This can be achieved in a number of ways including by improving the existing bus shelters, for instance, by ensuring that the trash is taken out, and maintaining comfortable seating at bus stops with good lighting for early morning and evening service. This can help give off the perception of safety for potential riders. Adding holiday service and introducing on-demand services like Uber and Lyft were ranked the lowest priorities, and adding Sunday service was ranked low, as well.

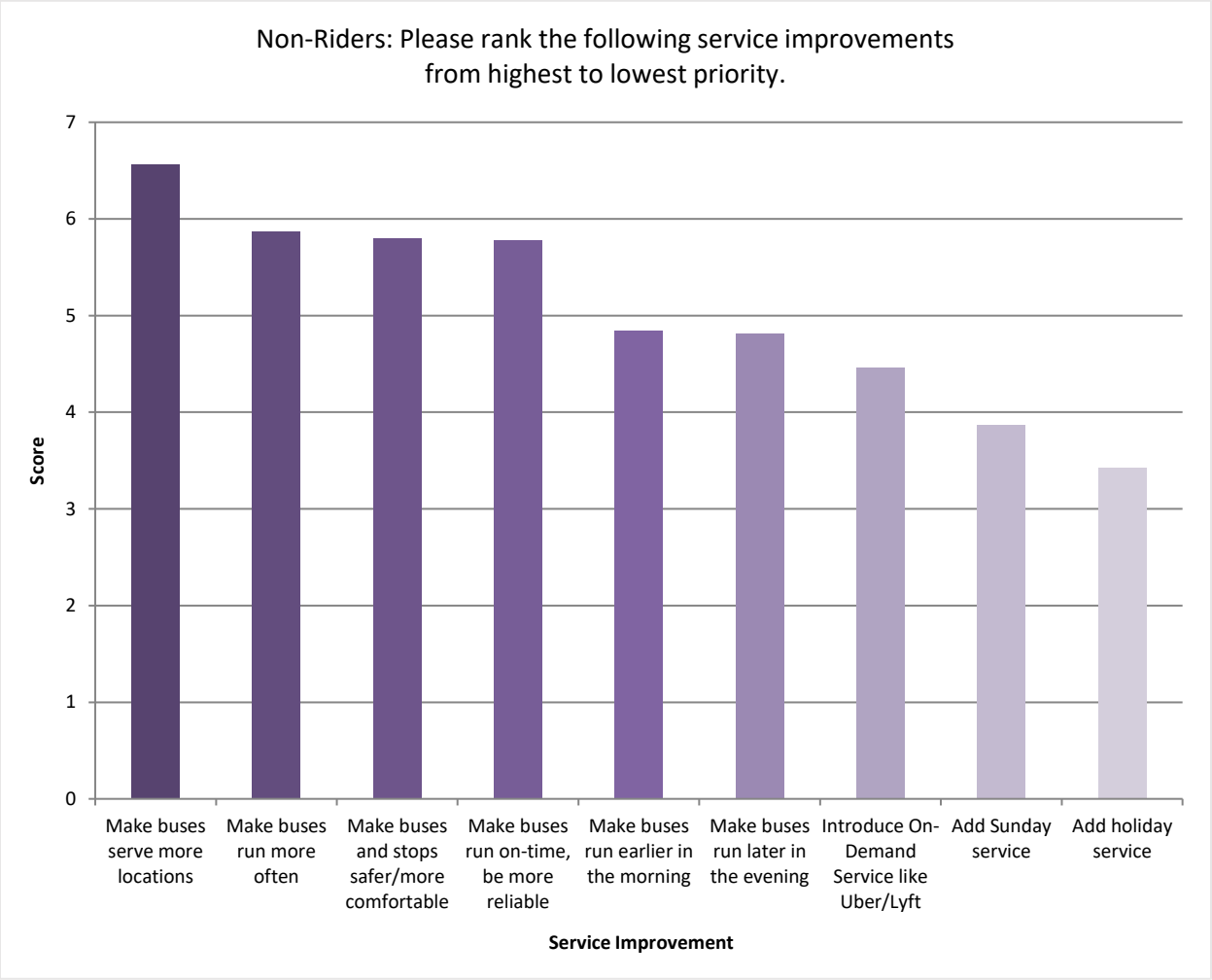
FIGURE 5: FORMER RIDERS QUESTION #1



SOURCE: 2022 PUBLIC TRANSPORTATION COMMUNITY SURVEY

Non-riders also prioritized making buses serve more locations and making buses run more often. Then making buses and stops safer/more comfortable followed as the third-highest priority for the non-rider category. Adding holiday and Sunday service were ranked the lowest priorities as well as introducing on-demand services like Uber and Lyft.

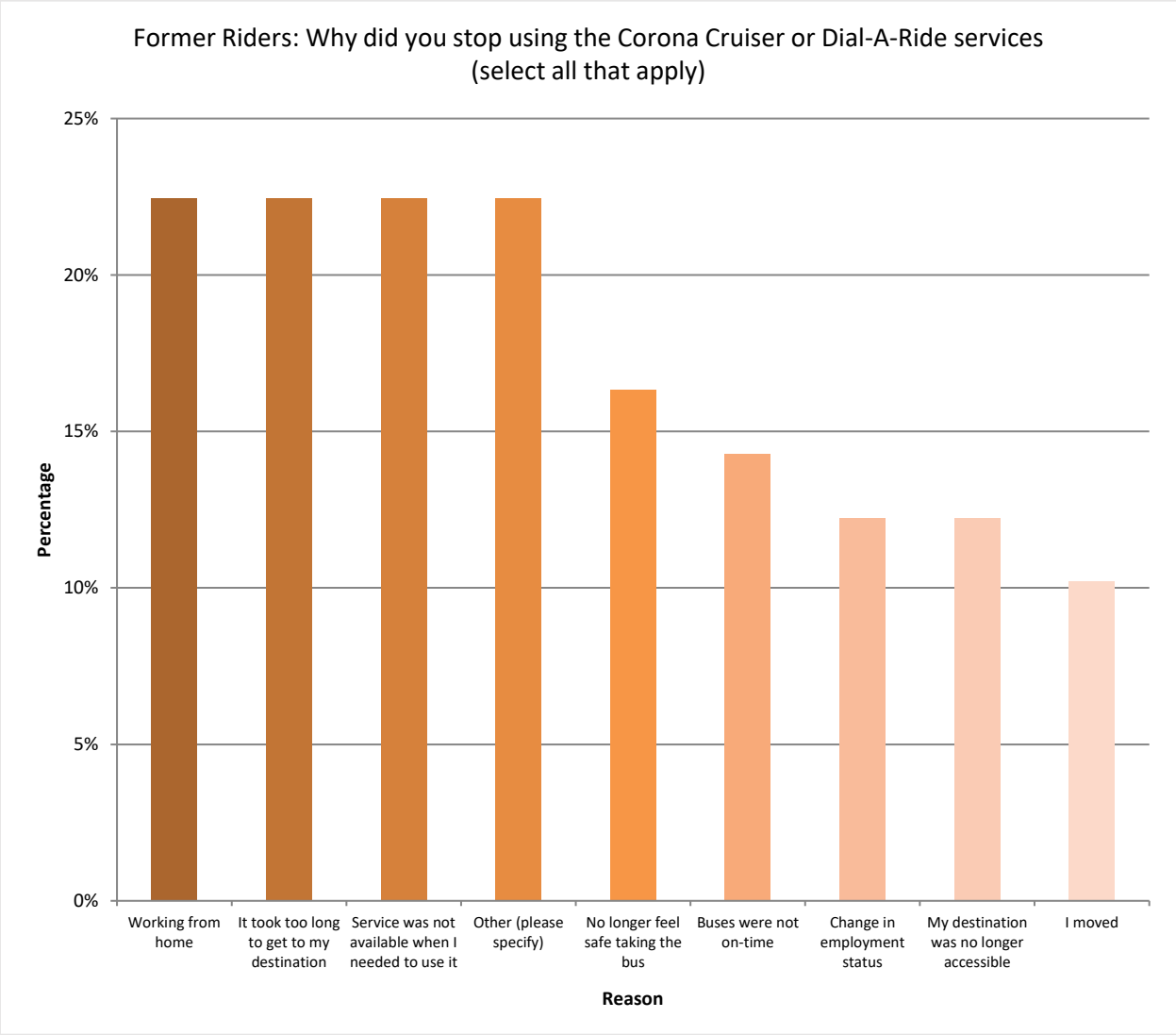
FIGURE 6: NON-RIDERS QUESTION #1



SOURCE: 2022 PUBLIC TRANSPORTATION COMMUNITY SURVEY

Figure 7 shows what the reasons were that former riders no longer use the Corona Cruiser or Dial-A-Ride services. Some of these options are out of the control of the transit agency, including working from home or when residents moved, but reasons like "it took too long to get to my destination" and "service was not available when I needed to use it" are within the scope of the City of Corona as it works to meet the current transit needs in the community. Speeding up the service so that residents can get where they need to go faster and serving more locations to capture more potential riders are two important transit needs that are currently not being met, according to former riders.

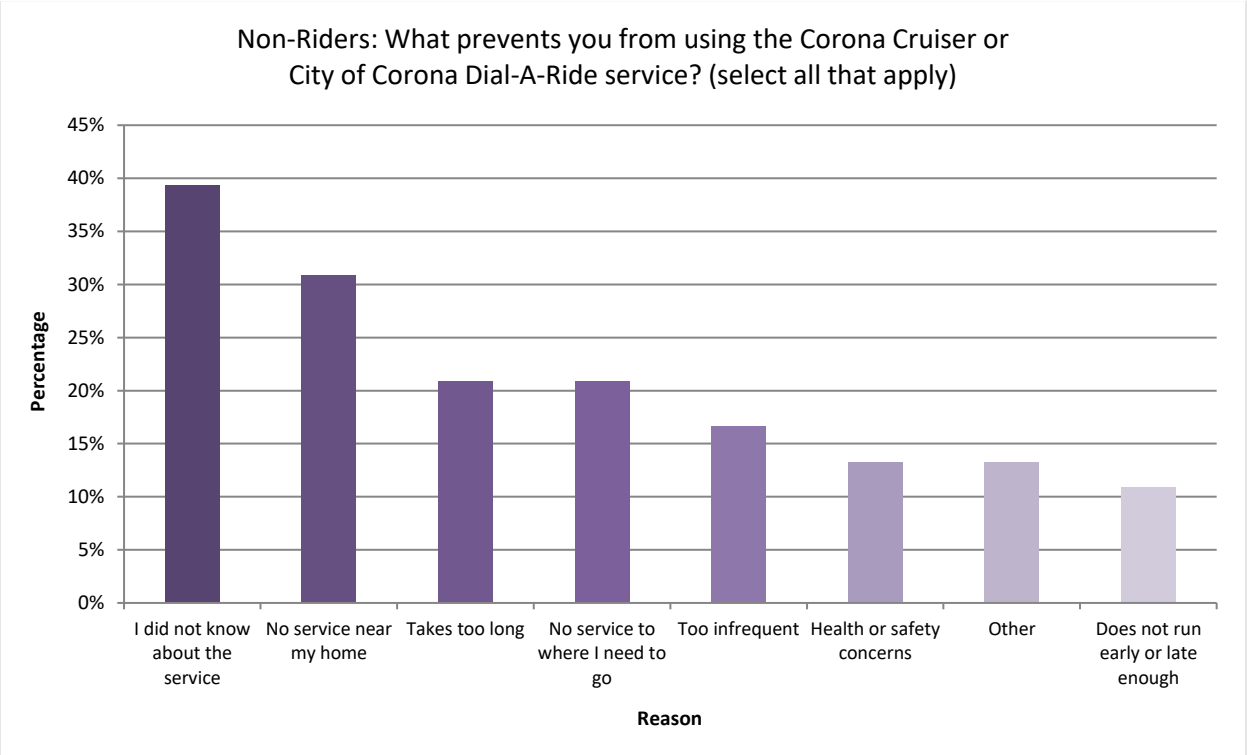
FIGURE 7: FORMER RIDERS QUESTION #2



SOURCE: 2022 PUBLIC TRANSPORTATION COMMUNITY SURVEY

Non-riders' responses to the question, "What prevents you from using the Corona Cruiser or Dial-A-Ride service?" provides a hopeful perspective for revising the transportation options available in the city. The most common response among non-riders was "I did not know about the service," which suggests that existing service is not well marketed—even if the current routes and service would be useful to them—and that a major education campaign through messaging channels and news will be valuable to make people aware of the services that are modified as a result of the COA process. For non-riders, the bus not running early or late enough was the least common reason that they did not use these transit services.

FIGURE 8: NON-RIDERS QUESTION #2



SOURCE: 2022 PUBLIC TRANSPORTATION COMMUNITY SURVEY

Additionally, although over 50% of non-riders had not used another public transportation service in the City of Corona, over a third of non-riders had used Metrolink which signifies that residents are familiar with the regional rail system that passes through Corona, and how the City of Corona's transportation services interface with Metrolink will be important to be mindful of in future service evaluation. Additionally, Metrolink and RTA will be useful partner agencies for rolling out new services. Additionally, in many cases, the existing RTA network might serve a resident in Corona just as well or better depending on their exact destination, which the City of Corona should keep in mind.

In summary, current Corona Cruiser riders want more frequent and reliable service. Non-riders and former riders would like Corona Cruiser to serve more locations more frequently. The areas which were identified as having potentially unment transit needs include the following places:

- More consistent service to the Corona North-Main (i.e., Corona Transit Center) and new service to the West Corona Metrolink Stations
- The Aldi retail location on Main St. in North Corona
- Further north to Hidden Valley Parkway
- Temescal Valley including Tom's Farms
- Weekday service to Dos Lagos including to Dos Lagos Plaza, Montecito Apartments, and Staybridge Suites Corona South.[1]
- Foothill Parkway and more service to El Cerrito

These potential unmet transit needs were identified through rider and community survey data and later analyzed by the consultant team. Apart from the Metrolink stations and the Aldi on Main St. in North Corona, these locations are difficult to justify expending limited fixed route public transit resources from the City of Corona, but they could offer an opportunity for on-demand or shuttle service to central hubs for riders to make transfers to more frequent service on certain days of the week.

[1] One area of potential demand noted above is in the Dos Lagos area, which is currently served by the Corona Cruiser Red Line on Saturdays only. This area is home to a number of new apartment complexes that were built after 2019, so they were not necessarily captured in the ACS data, but they were evaluated for enhanced service through the Final Service Plan.

Goals and Guidelines for Service Recommendations

Tradeoffs Considered

In the development of the redesigned network goals, there were primary considerations that were evaluated as tradeoffs:

- **Coverage vs. Frequency:** The most prominent tradeoff is in the provision of transit service that covers many destinations but with more infrequent service compared to a transit service that is more concentrated in core of the City that have high existing and potential transit demand with more frequent fixed route service.
- **One direction vs. Bidirectional Service:** A related tradeoff that the project team evaluated is whether the corridors where the Corona Cruiser travels, also known as route alignments, should be served by transit service consistently in one direction or by service in both directions, also known as bidirectional service. The ideal scenario would involve bidirectional service because this gives riders more options for where to travel. On corridors with service in only one direction, passengers may be required to travel out of the direction of their destination in order to complete one leg of their journey. While it is not always possible to expand the coverage to operate bidirectionally for all corridors, it should be strived for when possible.
- **Fixed route vs. Microtransit:** Many communities are exploring whether on-demand microtransit is a better approach to providing service in low density or low demand areas. Fixed route service is more cost effective in areas and corridors with high demand potential and can be predictable with no need for a customer to book a trip before using the service. Microtransit is a flexible transit service using shared vehicles ordered on an app or by phone. While this type of service can be very attractive to the customer, the need for vehicles to deviate to serve each rider results in significantly lower productivity than what fixed route can achieve. However, in low density areas that can't be productively served by fixed route, this can be a good alternative.

In summary, based on the tradeoffs explained above and the results of the public outreach processes, the project team designed the following four primary goals of the service alternatives:

1. Coverage: Expand access to more destinations.
2. Reliability: Update schedules to improve reliability.
3. Productivity: Increase ridership through service enhancements
4. Cost: Provide services that are sustainable and within projected budget enhancement.

Based on these goals, guidelines for developing service alternatives include the following:

A. Maintain and improve coverage for the existing riders.

B. Improve service reliability and frequency on productive corridors through updated schedules and streamlined fixed routes.

C. Enhance direct service to and from key shopping areas, without requiring transfers (e.g., Walmart, Target, Albertsons, Walgreens, Vons, Smart & Final, 99 Ranch, Sprouts, Aldi, etc.)

D. Eliminate unproductive route deviations and streamline route alignments (i.e., RTA & Corona Fixed Routes to complement vs. overlap service).

E. Expand coverage to key locations (e.g., Dos Lagos, Hidden Valley Plaza, Norco College).

F. Pilot a new microtransit service in areas currently not served by connecting into the fixed route network and key destinations.

- Augmented services intended to test potential demand in areas presumed to be difficult to serve effectively with fixed route service. (These areas can be adjusted or expanded based on data and depending on future funding availability.)

As noted earlier in this report, budget constraints will prevent fully achieving all of the goals or adhering to all of the guidelines for Corona Cruiser service. A guiding question throughout this process is how to improve the travel experience of existing customers while providing a service that can attract new riders within the budget constraints. Following the description of the scenarios and recommendations, **Figure 10** provides a summary of the costs and impacts of providing improved frequency and span of service beyond the constrained scenario.

In all scenarios examined service coverage is expanded to parts of the city currently unserved by transit by deploying microtransit. Microtransit is an on-demand shared ride service comparable to the current dial-a-ride service available to seniors and disabled individuals. Indeed, the same vehicles are recommended to be used in Corona. Customers will be able to book a ride by using an app on their smart phone or computer or by calling dispatch where the dispatcher would use the app to book the trip. The software to provide this type of service is available from several providers. Parameters can be set up to determine the maximum wait time after booking the trip. A microtransit zone or zones would be established allowing a customer to travel between any two points within the zone or to specific locations outside of the zone to connect with fixed route service to complete their trip or to directly reach specific destinations. While the plan recommends specific zones and destinations, they can be easily modified after implementation based on demand and trip patterns.

Service Recommendations

The results of the previous phases of the COA process culminated in a series of three scenarios for the future of the Corona Cruiser transit system. These scenarios included two alternatives that modified the current Corona Cruiser service with a combination of fixed route and microtransit service, as well as a final scenario that would maintain the status quo with the Blue and Red Lines. The financial impacts of these scenarios are discussed in the Operating Costs section of this report.

FIGURE 9: DRAFT SERVICE RECOMMENDATIONS SCENARIOS

	Scenario 1	Scenario 2	Scenario 3
Services	• One (1) Fixed Route with Dial-A-Ride •Microtransit Citywide	• 3 Fixed Routes with Dial-A-Ride • 2 Microtransit Zones with 10 Destinations	• Maintain Status Quo • 2 Fixed Routes with Dial-A-Ride
Frequency	• 30 minutes	• 60 minutes	• 55-70 minutes
Span	• Monday-Friday: 6:30 AM - 7:00 PM • Saturday: • 9:00 AM - 5:00 PM	• Monday-Friday: 6:30 AM - 7:00 PM • Saturday: • 9:00 AM - 5:00 PM	• Monday-Friday: 6:30 AM - 7:09 PM • Saturday: • 8:52 AM - 5:09 PM

Draft Route Recommendations

Scenario 1

Scenario 1 includes 1 fixed route bus route operating every 30 minutes, which was a goal that was mentioned in the public input process. The bus route, **Route A**, would provide service between the River Run Senior Apartments and the Dos Lagos area, with service on major North-South corridors including N. Main St., Rimpau Avenue, Ontario Avenue, and Temescal Canyon Rd. This route would combine the most productive stops and corridors of the Blue and Red Lines in order to streamline the route alignment and improve the frequency. This scenario would be complemented by a new citywide microtransit zone for general app-based ridehailing service, similar to a subsidized version of a shared Uber or Lyft ride. Service would operate from Monday through Saturday.

Scenario 2

Scenario 2 includes 3 fixed routes with each route operating every 60 minutes consistently all day. **Route A** will operate between the River Run Senior Apartments and Walmart at McKinley St., serving the Corona Transit Center, 6th St., and Promenade Avenue. This route will replace parts of the Blue Route, provide more direct service between River Run and Walmart and provide new service on Promenade Avenue. **Route B** will operate as a bidirectional loop, with service between W. Sixth at Smith Center and Walmart at California Avenue and Ontario Avenue with service on Border Avenue, 6th St., Rimpau Avenue, and new service on Ontario Avenue. This route will continue to serve most Red Route stops and provide more direct service to major retail destinations. **Route C** will operate between S. Main St. at 6th St. at the Corona Public Library and Target at The Crossings at Cajalco Rd. This route will replace portions of the Blue Route and Red Route not served by Route's A and B and provide new direct service from senior complexes on Magnolia Avenue and Fullerton Avenue to both the Corona Senior Citizens Center and retail centers in the vicinity of East Ontario Avenue and California Avenue. Although the fixed route bus frequency is not being changed dramatically, the alignment of each route is better designed to minimize potential delays. Thus, the 60-minute frequency is more accurate compared to the existing frequency of the Corona Cruiser Blue and Red Lines, which is more like 55-70 minutes. In addition to the fixed route network, Scenario 2 will include 2 Microtransit Zones with 10 Destinations outside of these zones for an app-based ridehailing service. These zones provide service to areas of town that do not show a sufficient demand for fixed route service, and add connectivity between the parts of town without fixed route service. Zone 1 will serve South Corona from the area near Green River Rd. to the areas around Foothill Pkwy., California Avenue, and Upper Dr. Zone 2 will serve a small area in Downtown Corona that is far from the fixed route service on Main St., Ontario Avenue, Border Avenue, and 6th St. Service would operate from Monday through Saturday and potentially Sunday if funding is available. (See Operating Cost section.) This scenario streamlines all routes, provides more direct service to major retail and commercial centers reducing overall travel time and though a mixture of fixed route changes and microtransit increases service coverage through the city.

Scenario 3

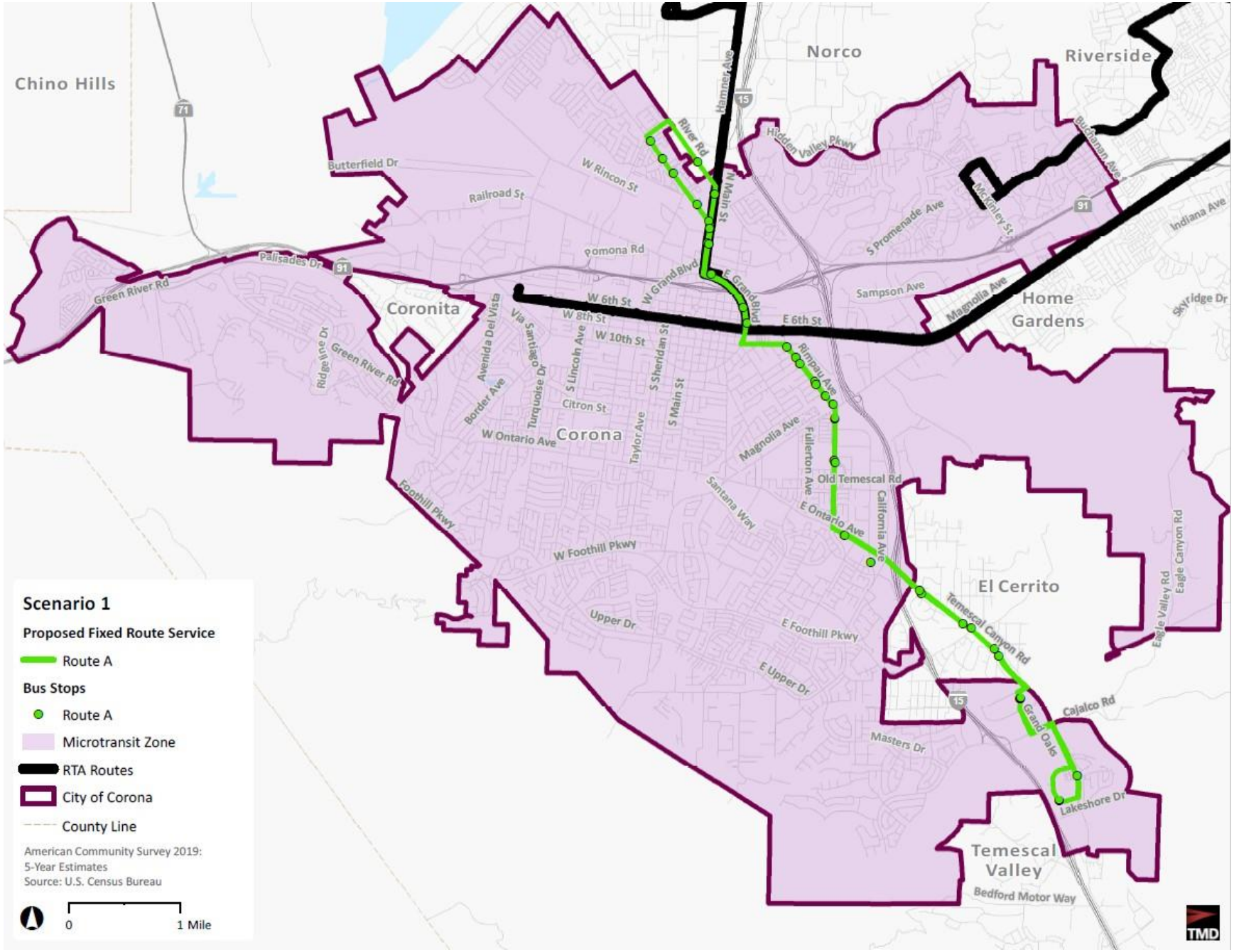
Scenario 3, or the Status Quo Scenario, would maintain the existing service alignments of the Blue and Red lines. There would be no changes to the route alignments or the schedule. The 2 fixed routes would operate every 55-70 minutes, and service would operate Mondays through Saturday.

Maps of the complete fixed route alignments, microtransit zones, and microtransit destinations are included on the following pages.

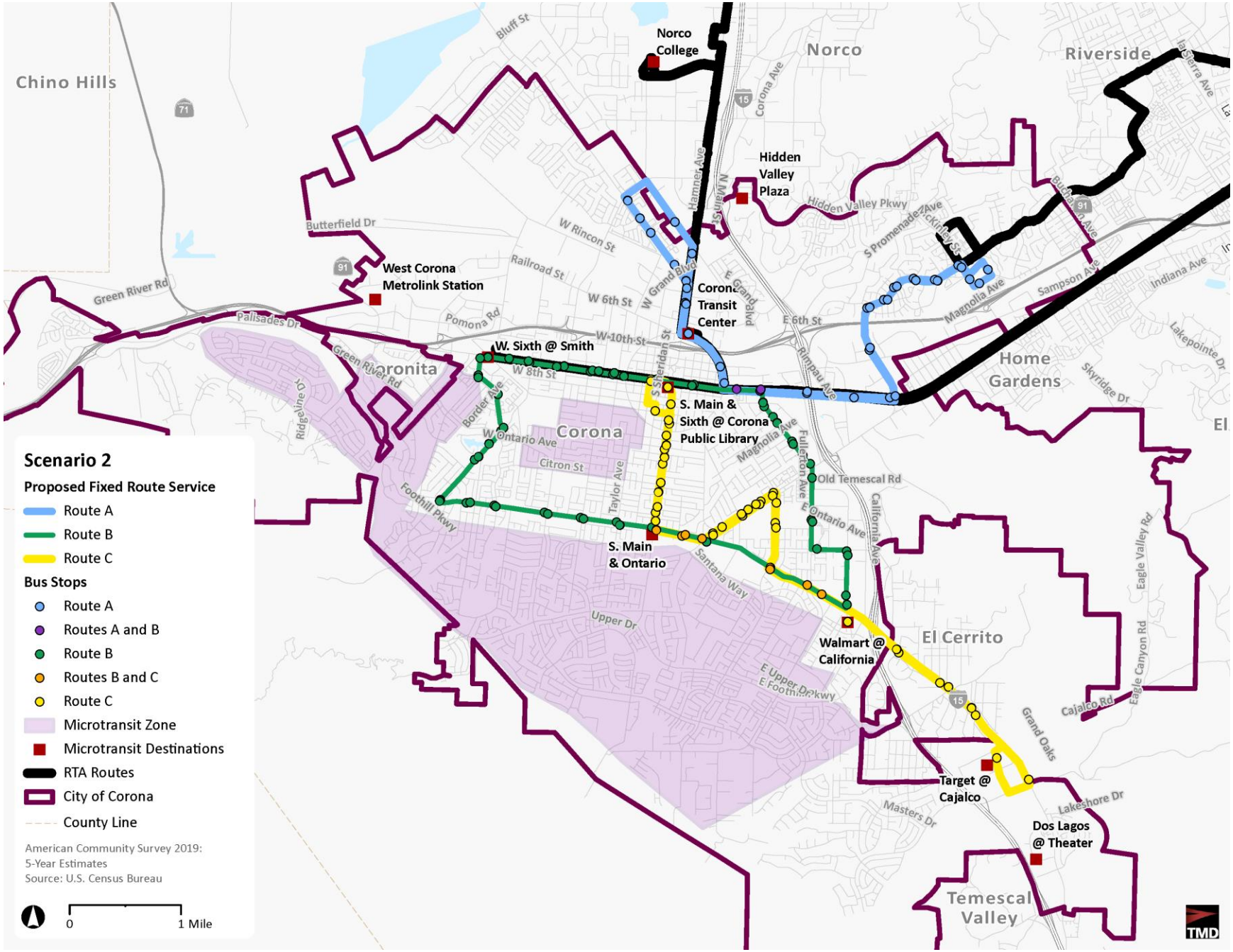
FIGURE 10: OPERATING COSTS AND REVENUE HOURS FOR EACH SCENARIO

		Weekday				Saturday				Sunday				Annual				Annual Revenue Hours Percent Change	Annual Operating Cost Percent Change
		Revenue Hours		Operating Cost		Revenue Hours		Operating Cost		Revenue Hours		Operating Cost		Revenue Hours		Operating Cost			
		Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed		
Scenario 1	**Fixed Route (1)**	50	36	$ 4,159	$ 2,922	30		$ 2,495	$ -	0		$ -	$ -	14,310	9,180	$ 1,190,163	$ 749,914	-36%	-37%
	DAR	52	52	$ 4,325	$ 4,220	12	12	$ 998	$ 974	0		$ -	$ -	13,884	13,884	$ 1,154,732	$ 1,134,184	0%	-2%
	Microtransit	0	60	$ -	$ 4,870	0	40	$ -	$ 3,246	0		$ -	$ -	0	17,380	$ -	$ 1,419,772		
	Total	**102**	**148**	**$ 8,483**	**$ 12,012**	**42**	**52**	**$ 3,493**	**$ 4,220**	**0**	**0**	**$ -**	**$ -**	**28,194**	**40,444**	**$ 2,344,895**	**$ 3,303,870**	**43%**	**41%**
Scenario 2 15%	**Fixed Route (3)**	50	48	$ 4,159	$ 3,921	30	32	$ 2,495	$ 2,614	0	0	$ -	$ -	14,310	13,904	$ 1,190,163	$ 1,135,818	-3%	-5%
	DAR	52	52	$ 4,325	$ 4,248	12	12	$ 998	$ 980				$ -	13,884	13,884	$ 1,154,732	$ 1,134,184		
	Microtransit	0	16	$ -	$ 1,307		12	$ -	$ 980	0	12	$ -	$ 980	0	5,328	$ -	$ 435,244	-	-
	Total	**102**	**116**	$ 8,483	**$ 9,476**	**42**	**56**	**$ 3,493**	**$ 4,575**	**0**	**12**	**$ -**	**$ 980**	28,194	33,116	**$ 2,344,895**	**$ 2,705,246**	**17%**	**15%**
Scenario 2 20%	**Fixed Route (3)**	50	48	$ 4,159	$ 3,856	30	32	$ 2,495	$ 2,571	0	32	$ -	$ 2,571	14,310	15,568	$ 1,190,163	$ 1,250,733	9%	5%
	DAR	52	52	$ 4,325	$ 4,178	12	12	$ 998	$ 964	0	12	$ -	$ 964	13,884	14,508	$ 1,154,732	$ 1,165,573	-	-
	Microtransit	0	16	$ -	$ 1,285	0	12	$ -	$ 964	0	12	$ -	$ 964	0	5,328	$ -	$ 428,052	-	-
	Total	**102**	**116**	$ 8,483	**$ 9,319**	**42**	**56**	**$ 3,493**	**$ 4,499**	**0**	**56**	**$ -**	**$ 4,499**	28,194	35,404	**$ 2,344,895**	**$ 2,844,357**	**26%**	**21%**

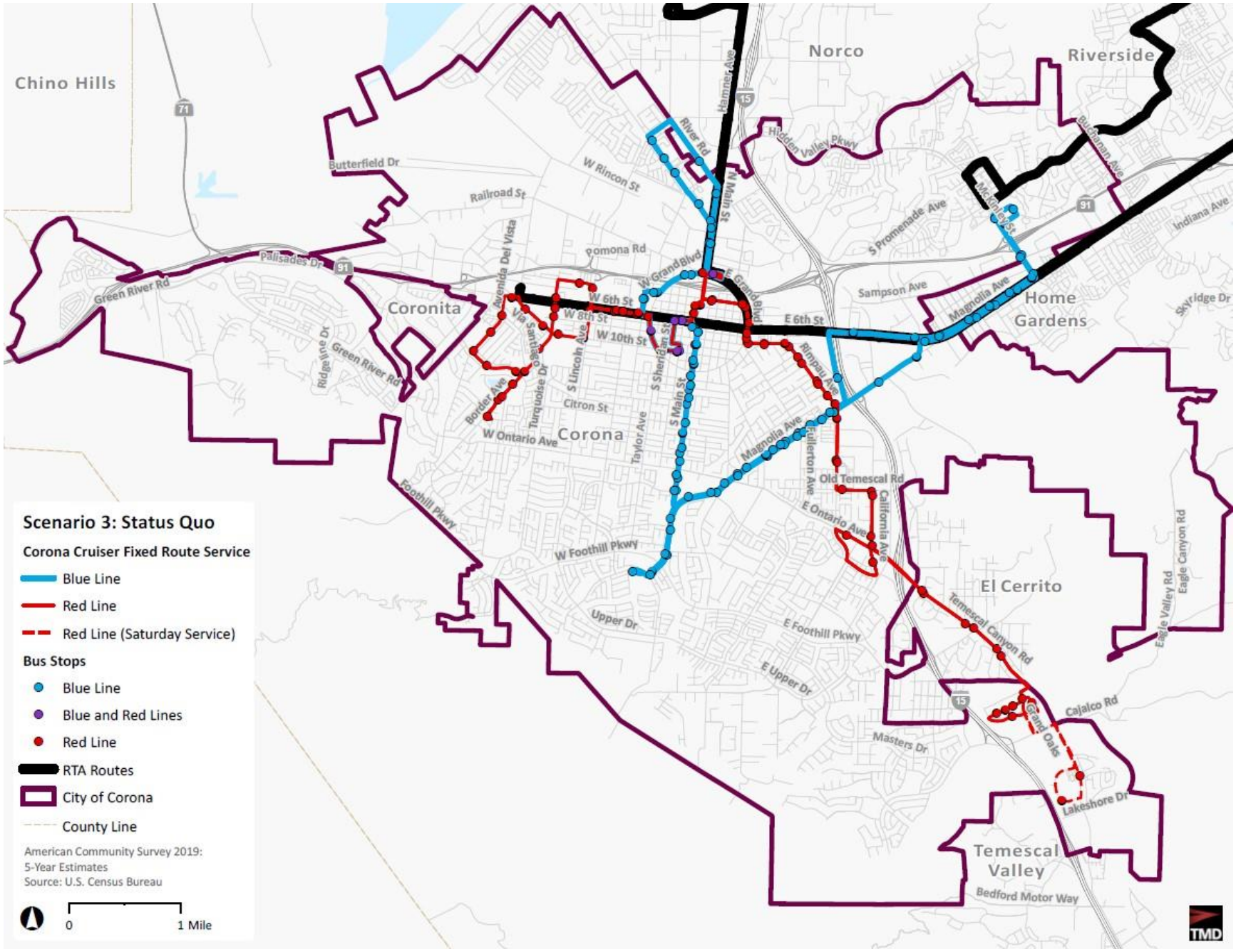
MAP 4: SCENARIO 1 WITH BUS STOPS



MAP 5: SCENARIO 2 WITH BUS STOPS



MAP 6: SCENARIO 3 WITH BUS STOPS



Impacts on Existing Customers

Figure 11 below identifies the impact each of the scenarios has on existing Corona Cruiser customers. *All unserved customers are within ½ mile of an RTA Route 1 bus stop.

FIGURE 11: NUMBER AND PERCENT OF EXISTING RIDERSHIP WITHIN WALKING DISTANCE OR SERVED BY MICROTRANSIT UNDER EACH SCENARIO

Scenario	Number of Existing Boardings Within ¼ mile of Fixed Route Service	Number of Existing Boardings Within ½ mile of Fixed Route Service	Number of Existing Boardings Within Microtransit Zone or Served by Fixed Route Service	Unserved Existing Boardings (Outside ½ Mile)*
1	191 (50%)	228 (60%)	375 (98%)	7 (2%)
2	352 (92%)	358 (94%)	367 (96%)	15 (4%)
3	382 (100%)	382 (100%)	382 (100%)	0 (0%)

Operating Costs of Proposed Service

The financial impacts of any proposed changes to the Corona Cruiser network were evaluated through the COA process. See **Figure 19** for a full summary of the revenue hour, revenue miles, and annual costs of service in each of the three scenarios.

The goal of a service plan is always to stay within the anticipated budget that was projected for the next five years after the release of the plan. In the case of the Corona Cruiser system, the current operating budget includes the option to increase the costs up to 15% of the current costs and still be considered a no-increase scenario because of the savings from earlier years. This will be the new baseline budget for subsequent years when annual increases in revenue should normally match or exceed the annual increase in operating costs. Among the cost projections of the 3 scenarios, Scenario 1 increased annual operating cost by 41%, therefore would not stay within the maximum 15% increase in costs, due to the implementation of a citywide microtransit to replace the loss of fixed route coverage. Scenario 2 could be implemented at either a 15% or 20% increase in costs, depending on the inclusion of Sunday service, which was mentioned in a number of rider comments during Phase I of the public input process. This scenario maintains most existing coverage with simpler more direct routes but without an increase of frequency or span of service (although a consistent 60 minute frequency is more attractive to customers compared to the current inconsistent 55-70 frequency).

Public Outreach Phase II

The Draft Service Recommendations were presented first at the Corona City Council Study Session on November 16th, 2022. During this Study Session the City Council directed the project team to seek comment from the public about the proposed changes to the network.

The team launched an online survey to collect input from riders and residents. The online survey was advertised onboard the Corona Cruiser buses as well as on the City of Corona social media pages, and by sending emails to all affordable housing properties and participants of the initial survey. The project team participated in three additional outreach events to share the draft service recommendations and gather feedback about the proposal. The events included:

- Tabling at the Corona Senior Center on December 1st, 2022.
- Tabling at the Holiday Lighting Ceremony on the Historic Civic Center Lawn on December 4th, 2022.
- A Virtual Town Hall meeting online using Zoom on December 8th, 2022.
- Direct emails to all affordable housing properties, participants of the initial survey and school districts.

A series of sample images are located in the Appendix to demonstrate the printed and digital materials that were used to promote the Phase II public outreach activities.

IMAGE 4: PUBLIC OUTREACH

What We Heard

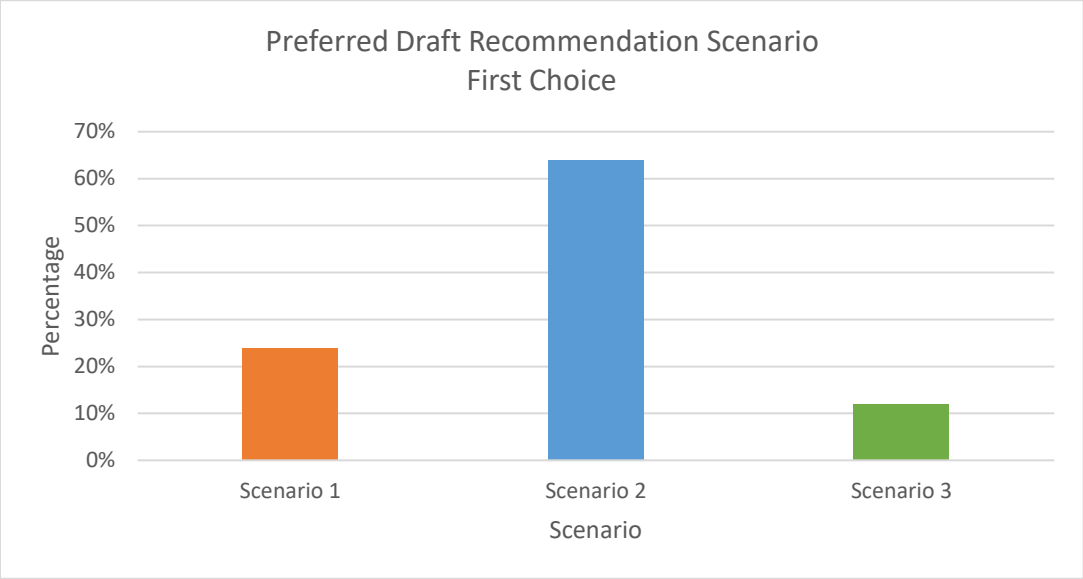
There were 108 responses to the Draft Recommendations Survey, and the data from these survey responses suggested a clear path forward for the Corona Cruiser system. The survey results demonstrate strong support for **Scenario 2**, with 64% of respondents choosing Scenario 2 as their first choice among the 3 options. After using a weighted scoring system, which incorporates respondents' second and third choices by assigning a first-choice scenario 3 points, a second-choice scenario 2 points, and a third-choice scenario 1 point, the support for Scenario 2 is still strong. Scenario 2 received 42% of the total weighted points, Scenario 1 received 31%, and Scenario 3, or the Status Quo Scenario, received 27%.

When asked which scenario will encourage you to ride Corona Cruiser more, the most popular response was also Scenario 2, with 63% of all respondents supporting that option. Among respondents who are current riders of the Corona Cruiser or Dial-A-Ride systems, Scenario 2 received strong support with 56% of riders choosing Scenario 2. Non-riders supported Scenario 2, as well, with over 70% supporting Scenario 2, which means it has a good chance of increasing ridership with new customers who have not used the Corona Cruiser system before.

Question 4 asked "If the City receives additional funding, how should that funding be allocated to improve Corona Transit?" The most popular first choice among respondents was to improve the frequency of service (37%), with expanding the weekday span of service as the second-most popular choice (31%). Introducing Sunday service was the third-most popular option (22%), and expanding the span of service on Saturdays received the fewest first choice votes (11%). After applying a similar ranking system to the order of responses received, with the first-choice service improvement receiving 4 points, the second-choice service improvement receiving 3 points, and so on, the results were placed in a weighted scoring system. Expanding service during the week and improving the frequency of service both received 28% of the total weighted points.

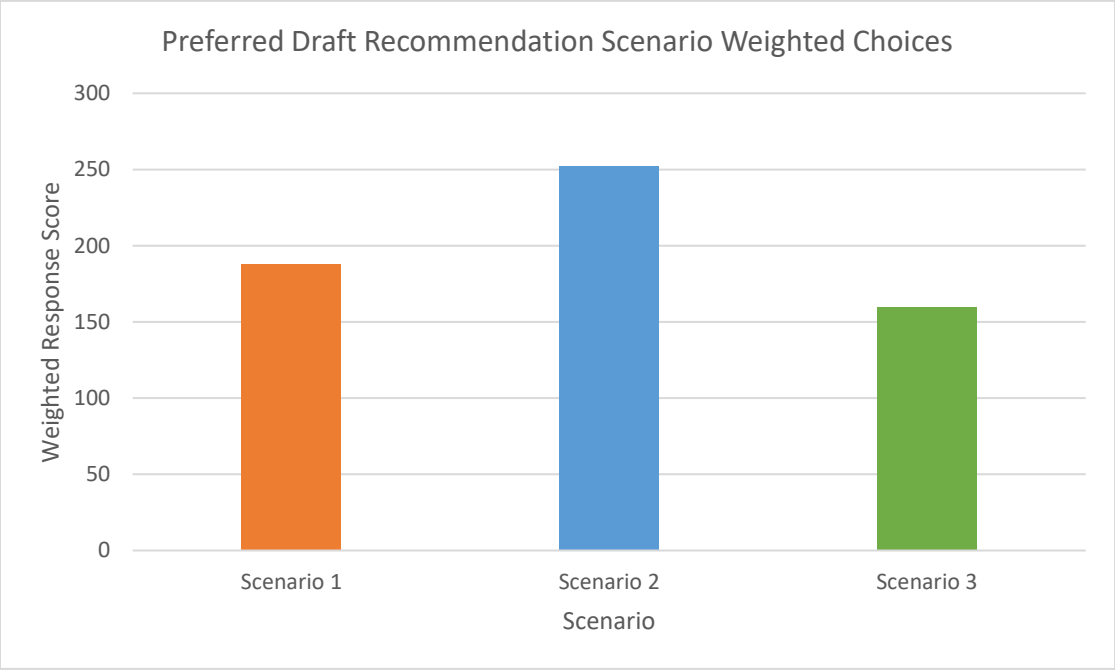
The summarized results of the Draft Recommendations Survey are presented in the graphs on the following pages.

FIGURE 12: PREFERRED DRAFT RECOMMENDATION SCENARIO (FIRST CHOICE)



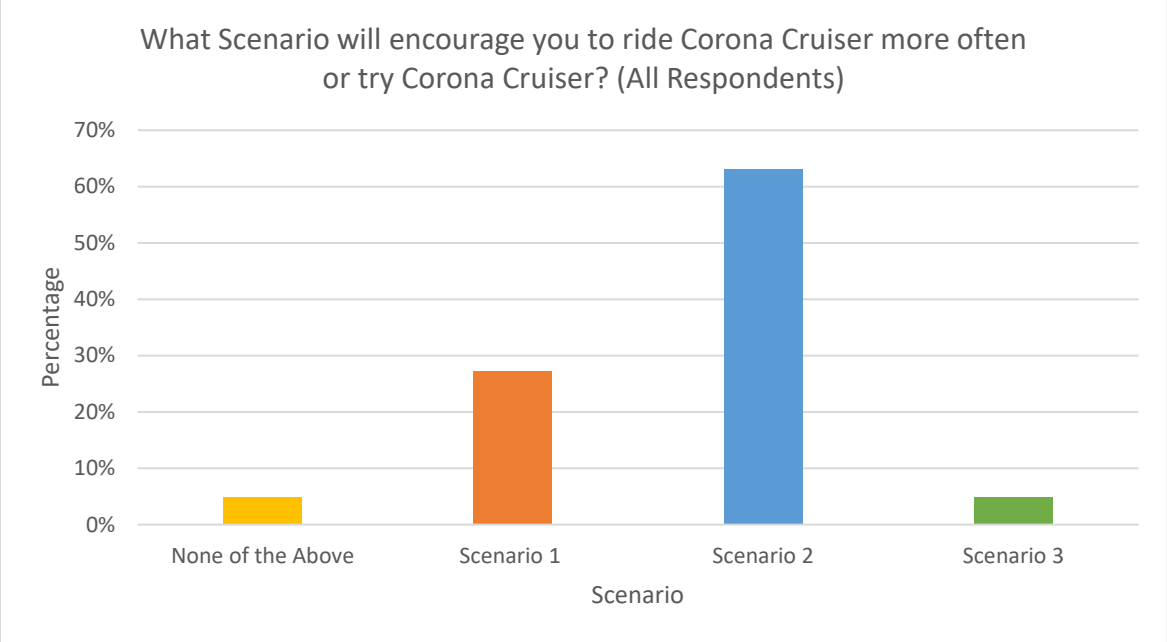
SOURCE: 2023 DRAFT RECOMMENDATIONS SURVEY

FIGURE 13: PREFERRED DRAFT RECOMMENDATION SCENARIO (WEIGHTED CHOICES)



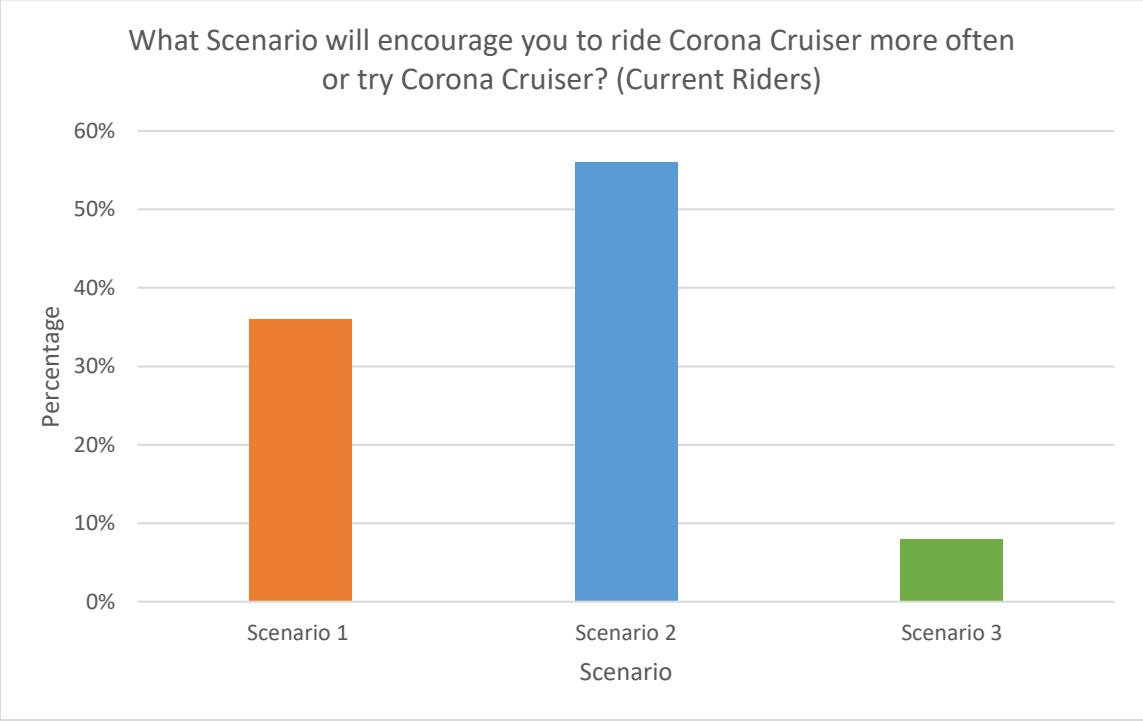
SOURCE: 2023 DRAFT RECOMMENDATIONS SURVEY

FIGURE 14: WHAT SCENARIO WILL ENCOURAGE YOU TO RIDE CORONA CRUISER MORE OFTEN OR TRY CORONA CRUISER? (ALL RESPONDENTS)



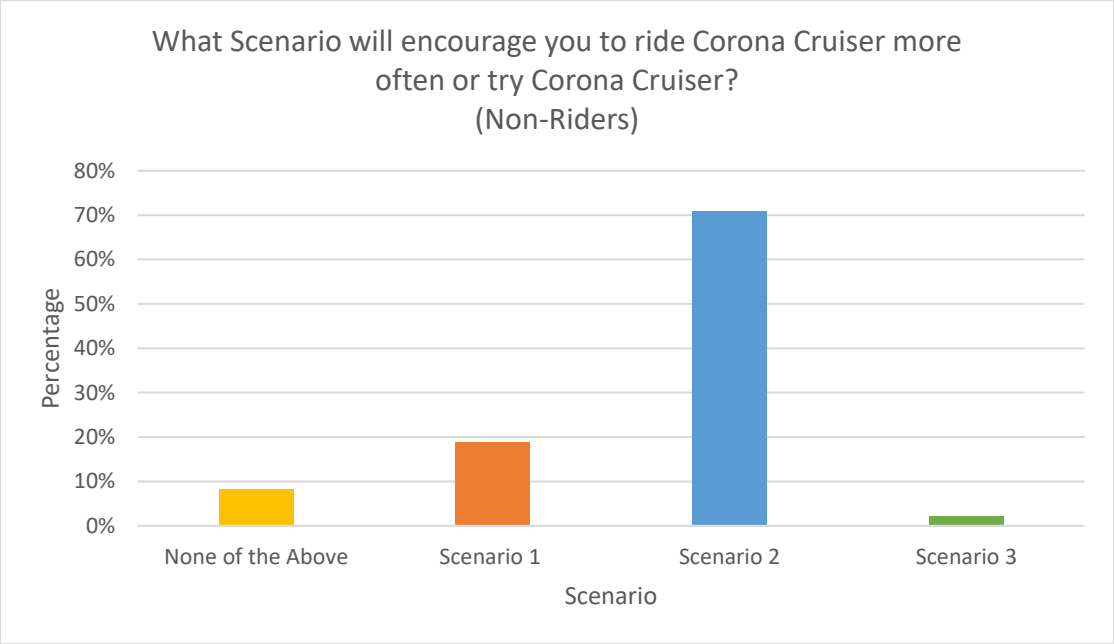
SOURCE: 2023 DRAFT RECOMMENDATIONS SURVEY

FIGURE 15: WHAT SCENARIO WILL ENCOURAGE YOU TO RIDE CORONA CRUISER MORE OFTEN OR TRY CORONA CRUISER? (CURRENT RIDERS)



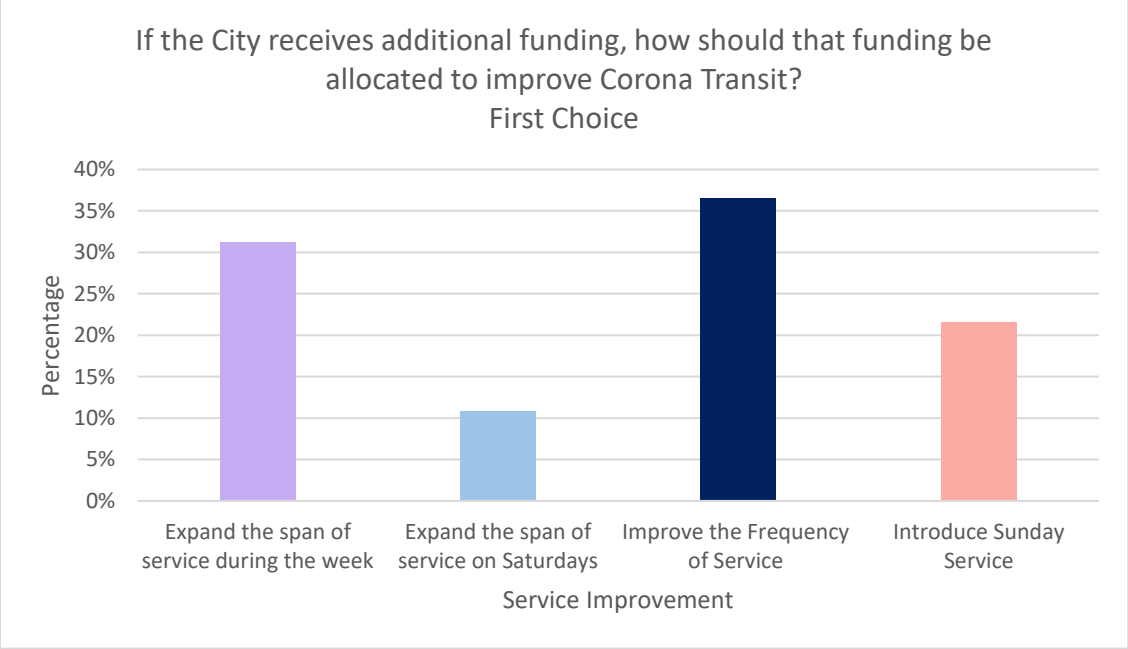
SOURCE: 2023 DRAFT RECOMMENDATIONS SURVEY

FIGURE 16: WHAT SCENARIO WILL ENCOURAGE YOU TO RIDE CORONA CRUISER MORE OFTEN OR TRY CORONA CRUISER? (NON-RIDERS)



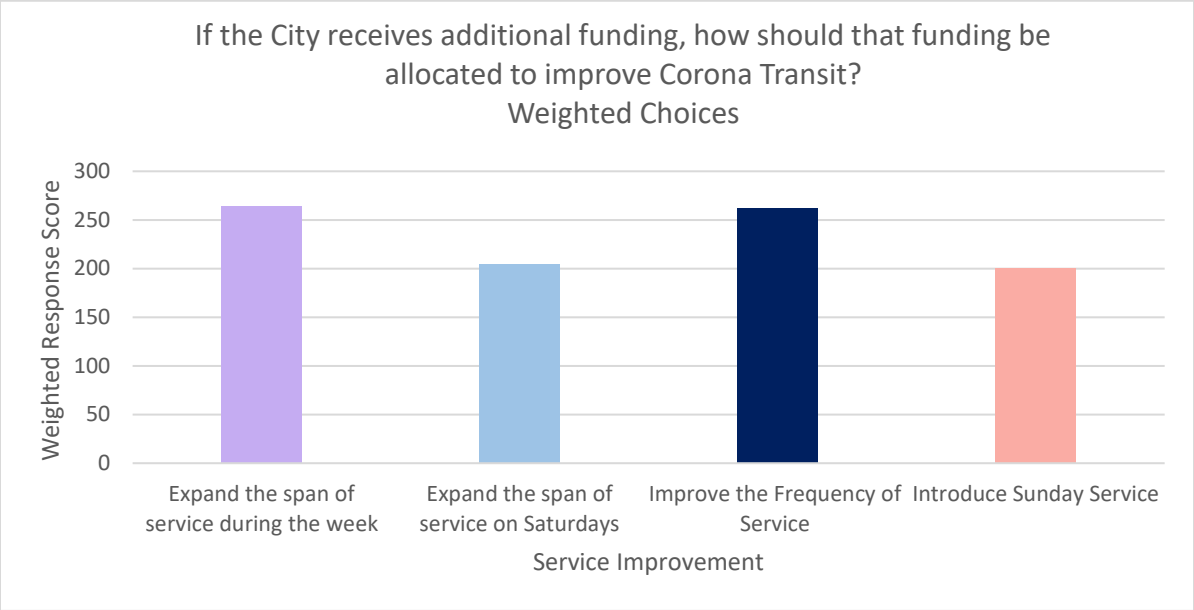
SOURCE: 2023 DRAFT RECOMMENDATIONS SURVEY

FIGURE 17: IF THE CITY RECEIVES ADDITIONAL FUNDING, HOW SHOULD THAT FUNDING BE ALLOCATED TO IMPROVE CORONA TRANSIT? (FIRST CHOICE)



SOURCE: 2023 DRAFT RECOMMENDATIONS SURVEY

FIGURE 18: IF THE CITY RECEIVES ADDITIONAL FUNDING, HOW SHOULD THAT FUNDING BE ALLOCATED TO IMPROVE CORONA TRANSIT? (WEIGHTED CHOICES)



SOURCE: 2023 DRAFT RECOMMENDATIONS SURVEY

Final Recommendations

Based on the results of Phase II of Public Outreach, the preferred option for the Corona Cruiser system is **Scenario 2**, with a few slight refinements and modifications to ensure riders have the best experience possible and are able to travel to the most amount of destinations across the service area. The primary goal of Scenario 2 was to expand the number of riders who are able to take a direct, one-seat ride to key shopping and employment centers which were shown to be the primary trip generators for travel patterns in Corona. The three interconnected fixed routes will achieve this goal by increasing the choices available to riders. With Route A, riders at the River Run Senior Apartments will have a faster connection to the Walmart at McKinley shopping area, with new areas covered on S Promenade Avenue. With Route C, riders at the housing (including senior apartment complexes) along Magnolia Avenue will have direct access to both Downtown Corona (including the Corona Senior Center and the Corona Public Library), as well as the S Main St. and E Ontario Avenue corridors for shopping (including Walmart and the retail shopping areas at the Ontario and California Avenue intersection), and the Crossings at Corona shopping center (including Target). This combines some of the strongest trip generators and corridors of the existing Blue and Red Line fixed route services to provide an improved experience for passengers by reducing travel time and expanding timed transfers across the city. The bidirectional service provided by Route B, which will operate on bidirectional loops across central Corona, expands and reduces travel times for current Red Line customers, while expanding coverage to new areas on W Ontario Avenue and Border Avenue in South Corona. The microtransit zones further expand coverage where fixed route service will

not directly operate, and the 10 microtransit destinations allow riders to connect to new areas between the fixed route and on demand services.

The one minor addition that was recommended in the Draft Recommendation Survey and follow-up evaluation process is the removal of the Fresno Canyon and Skyline Trail microtransit destination point and instead adding a microtransit destination point at Norco College/JFK High School and Hidden Valley Plaza. These destinations were added because transit access from Corona does not exist to Hidden Valley Plaza and requires a transfer to RTA Route 3 to access Norco College/JFK High School. RTA Route 3 does not connect with the Red Route most of the day and will not connect with future Route B and C.

The recommended Scenario 2 will continue to serve 96% of existing customers with the remaining four percent of customers will continue to be served by RTA Route 1.

It is recommended that existing Corona dial-a-ride service for seniors and disabled, which serves the entire city and unincorporated county areas of Coronita, Home Gardens, & El Cerrito as well as within ¾ mile of fixed route service outside of the city limits will continue to operate as current.

Future Expansion and Identification of Future Funding Sources

The Riverside County Transportation Commission (RCTC) requested that an additional set of "blue sky" unconstrained scenarios were evaluated in order to assess the absolute best-case scenario if grant funding could be secured in the future. The unconstrained scenarios included:

- What would a 30-minute frequency service cost?
- What would it cost to run service on Sundays?
- What would it cost to extend the span of service earlier in the morning and later at night?
- What would all these together cost?

The additional unconstrained scenarios are included in the budget presented in **Figure 19**.

The maximum sales tax allowed by state law in any jurisdiction is 9.25%, although exemptions have been given in some communities to exceed that cap. Therefore, the city of Corona or RCTC could place a ballot measure to increase the sales tax by any percentage not exceeding 1/2 percent to provide funding for expanded Corona Cruiser service. If the city were to pursue a tax measure it would likely cover a variety of services – Corona Cruiser being one of them. For example, in November 2022 the city of Walnut Creek CA placed a successful sales tax measure that funded increased funding for public safety, recreation programs and services for seniors.

RCTC's Measure A expires in 2039 and 12% of the proceeds collected in Western Riverside County are dedicated to transit. Typically, agencies go to the voters to renew taxes several years in advance of the expiration date. For example, the original Measure A expired in 2009 but was renewed in 2002. When RCTC chooses to renew Measure A, the funding dedicated for transit could be increased which could provide additional resources for Corona Cruiser.

Changes in federal and state funding for transit are a big unknown at this time. Many transit agencies are facing a "fiscal cliff" when funding from the three federal Covid relief funding programs is used up. As a result, there are efforts at both the federal and state level to increase operating support for transit so that that agencies are not faced with making significant service cuts. Corona Cruiser is not facing a fiscal cliff, however, could benefit from any increase in opening support for transit at the federal or state level if that should occur.

Implementing any of the unconstrained scenarios will require increasing funding for Corona Cruiser. The discussion that follows is not a recommendation or endorsement of any funding strategy, merely identifying the options that are available to the city and/or RCTC to provide the funding needed to implement expanded service.

FIGURE 19: FULL COST ESTIMATES OF UNCONSTRAINTED SCENARIOS

		Weekday				Saturday				Sunday				Annual				Annual Revenue Hours Percent Change	Annual Operating Cost Percent Change
		Revenue Hours		Operating Cost		Revenue Hours		Operating Cost		Revenue Hours		Operating Cost		Revenue Hours		Operating Cost			
		Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed		
Unconstrained Scenario Option 1: Increase Frequency	**Fixed Route (3)**	50	96	$ 4,159	$ 7,713	30	64	$ -	$ 5,228	0	0	$ -	$ -	14,310	27,808	$ 1,190,163	$ 2,234,095	94%	88%
	Additional DAR	0	0	$ -	$ -	0	0	$ -	$ -	0	0	$ -	$ -	0	0	$ -	$ -	-	-
	Microtransit	0	12	$ -	$ 964	0	8	$ -	$ -	0	8	$ -	$ -	0	3,892	$ -	$ 312,683		
	Total	**50**	**108**	$ 4,159	**$ 8,677**	**30**	**72**	**$ -**	**$ 5,228**	**0**	**8**	**$ -**	**$ -**	14,310	31,700	**$ 1,190,163**	**$ 2,546,778**	**122%**	**114%**
Unconstrained Scenario Option 2: Increase span	**Fixed Route (3)**	50	80	$ 4,159	$ 6,427	30	60	$ -	$ -	0	0	$ -	$ -	14,310	23,520	$ 1,190,163	$ 1,889,597	64%	59%
	Additional DAR	0	6	$ -	$ 482	0	4	$ -	$ -	0	0	$ -	$ -	0	1,738	$ -	$ 139,631	-	-
	Microtransit	0	16	$ -	$ 1,285	0	12	$ -	$ -	0	8	$ -	$ -	0	5,120	$ -	$ 411,341		
	Total	**50**	**102**	$ 4,159	**$ 8,195**	**30**	**76**	**$ -**	**$ -**	**0**	**8**	**$ -**	**$ -**	14,310	30,378	**$ 1,190,163**	**$ 2,440,569**	**112%**	**105%**
Unconstrained Scenario Option 3: increase frequency and span	**Fixed Route (3)**	50	128	$ 4,159	$ 10,284	30	96	$ -	$ -	0	0	$ -	$ -	14,310	37,632	$ 1,190,163	$ 3,023,355	163%	154%
	Additional DAR	0	6	$ -	$ 482	0	4	$ -	$ -	0	0	$ -	$ -	0	1,738	$ -	$ 139,631	-	-
	Microtransit	0	16	$ -	$ 1,285	0	12	$ -	$ -	0	8	$ -	$ -	0	5,120	$ -	$ 411,341		
	Total	**50**	**150**	$ 4,159	**$12,051**	**30**	**112**	**$ -**	**$ -**	**0**	**8**	**$ -**	**$ -**	14,310	44,490	**$ 1,190,163**	**$ 3,574,327**	**211%**	**200%**
Unconstrained Scenario Option 4: Add Sunday Service existing span and frequency.	**Fixed Route (3)**	50	60	$ 4,159	$ 4,820	30	40	$ -	$ -	0	40	$ -	$ -	14,310	19,460	$ 1,190,163	$ 1,563,416	36%	31%
	Additional DAR	0	0	$ -	$ -	0	0	$ -	$ -	0	10	$ -	$ -	0	520	$ -	$ 41,777	-	-
	Microtransit	0	12	$ -	$ 964	0	8	$ -	$ -	0	8	$ -	$ -	0	3,892	$ -	$ 312,683		
	Total	**50**	**72**	$ 4,159	**$ 5,784**	**30**	**48**	**$ -**	**$ -**	**0**	**58**	**$ -**	**$ -**	14,310	23,872	**$ 1,190,163**	**$ 1,917,876**	**67%**	**61%**
Unconstrained Scenario Option 5: All of the above	**Fixed Route (3)**	50	128	$ 4,159	$ 10,456	30	96	$ -	$ -	0	96	$ -	$ -	14,310	42,624	$ 1,190,163	$ 3,424,412	198%	188%
	Additional DAR	0	6	$ -	$ 482	0	4	$ -	$ -	0	12	$ -	$ -	0	2,362	$ -	$ 189,763	-	-
	Microtransit	0	16	$ -	$ 1,285	0	12	$ -	$ -	0	12	$ -	$ -	0	5,328	$ -	$ 428,052		
	Total	**50**	**150**	$ 4,159	**$12,224**	**30**	**112**	**$ -**	**$ -**	**0**	**120**	**$ -**	**$ -**	14,310	50,314	**$ 1,190,163**	**$ 4,042,227**	**252%**	**240%**

Proposed Fare Changes

Currently, Corona Transit fares are lower than the fares charged by RTA. It is recommended that Corona Transit fares be aligned with RTA fares for a consistent customer experience and generate additional revenue. At minimum annual fare revenue will increase by $50,000 and farebox recovery by two percentage points.

FIGURE 20: RECOMMENDED FARE STRUCTURE

FARES (one-ride)	RTA	Corona (Existing)	Corona (Proposed)
Fixed Route			
General Public	$1.75	$1.50	**$1.75**
Student (k-12)	$1.75	$1.50	**$1.75**
Seniors/Disabled/Medicare Card Holder	$0.75	$0.70	**$0.75**
Children (46" & under)	$0.50	$0.50	**$0.50**
DAR	$3.50	$2.50	**$3.50**
Microtransit	--	--	**$1.75**

Conclusion

Corona Cruiser provides a useful service providing access throughout the city and connections to the regional transit network. However, it is essentially the same service provided for nearly 20 years. Based on extensive community outreach, a review of the ridership and schedule adherence of every weekday and Saturday trip, use of Replica data to ascertain overall trip patterns in Corona and a review of the demographics and density within the city; a restructuring of service was developed that is simpler to understand, provides more direct service to key destinations and improves reliability. This will improve the experience for existing customers and encourage increased use of the system. Due to funding limitations, it is not possible to increase service frequency or service span in the short term, however scenarios were developed that provide guidance on how to increase service should additional funding become available over the next ten years.

ADDENDUM

IMPLEMENTATION ACTIVITIES

A. Develop detailed schedules for each proposed route. This will include vehicle blocking and developing driver shifts.

B. Conduct a stop audit to determine the best location and improvements needed at each location. All new locations will be surveyed to verify practicality, obtain any necessary permits/approvals, identify alternative locations for any recommended stops that cannot be installed at the recommended location for any reason.

C. Identify capital elements to support the new network. This includes bus stop signs for new stops, new route designation signs, determine physical improvements needed at new stops (amenities and ADA compliance). Benches and shelters at stops being discontinued can be relocated to new stops.

D. Bus stop implementation - installing signs, timetable holders and improvements at new locations, installing new route designation signs and updated timetables in holders at retained stops, and remove signs and remove or relocate amenities from discontinued stops.

E. Develop microtransit criteria (e.g., maximum wait time), develop specs and procure microtransit software.

F. Develop a strategy for informing the community of the changes and encouraging new customers to use the service.

G. Redesign public information materials (schedules, maps, how to use the system) both online and hard copy to improve customer understanding of the system.

H. Train drivers and support staff on the new routes.

I. Train staff on using software and microtransit protocols (should be included in specs for software).

INCIDENTAL TASKS REQUIRED TO IMPLEMENT NEW PROGRAMS AND SERVICES:

1. Intelligent Transportation System (ITS): This system is for the purpose of ensuring customers are receiving the highest quality information on time as well as ensuring that CCTS is operating at optimal efficiency. ITS will includes components such as: Computer Aided Dispatching; Automatic Vehicle Location; Automated Annunciators and Reader Boards to meet ADA Requirement; Relay real-time transit information; Automated Passenger Counter; and an Advance Fare Payment System. Customers are demanding enhanced information on a more immediate basis. Additionally, reporting requirements add increased pressure to provide more accurate and detailed information to monitor the system's performance. Upgrading existing systems and

installation of new technologies will ensure that customers are receiving the highest quality information on time, as well as ensuring that CCTS is operating at optimal efficiency. The use of ITS technologies contributes to enhanced customer service, improved productivity and to the overall fiscal responsibility of the transit system.

2. FLEET PURCHASE:

   ADA Accessible Vans - To provide additional transit options, purchase an ADA accessible van for the proposed microtransit service and to support the current DAR program to transport fewer passengers (or one wheelchair). This will allow the usage of a smaller vehicle for situations when a larger vehicle is not warranted. With the use of a smaller vehicle, it may lead to improved efficiency and an overall improved experience, i.e., punctuality, cost efficiency, comfort, etc.

   Replacement Cutaway Buses - Purchase replacement cutaway buses. Cutaway buses have a useful life of five (5) years or minimum of 150,000 miles, whichever comes first. Total of thirteen (2 -2012 and 11-2018) buses needs replacement. At the time of implementation of recommended service, these buses must be replaced to ensure service is provided without interruption. These buses are mainly used for Dial-A-Ride service, however, they are also utilized for fixed route, as necessary. In addition, the cutaway buses can be used for microtransit for economy of scale.

   Replacement of fixed route Buses – Purchase replacement fixed route buses in accordance with Federal State of Good Repair regulations and the state of California ICT Zero Emissions Bus (ZEB) Roll-Out Plan. In accordance, CCTS is obligated to replace seven (7) buses by 2028 with two (2), or 20% of buses in compliance with the CCTS ZEB rollout plan. Due to lead times, this effort must commence in 2026.

3. Develop Bus Stop Standards & Amenities: Develop standards that will assist in assignment of amenities at bus stop. Amenities at bus stops may include signage, seating, trash receptacle, lighting and/or covered shelter. The primary factor driving bus stop amenities and design is ADA accessibility regulations; other factors include ridership statistics per bus stop and funding availability.
4. Fare Analysis and restructure: If approved, implement new fare structure and review fare structure at time of implementation of service recommendation to ensure Corona Transit fares continue to align with RTA fares.
5. Project Management: Procure project management services, develop project schedule of activities, project budget with sources of funds, implementation phasing plan.

The implementation of the recommendation of this analysis represents a near overhaul of services. Therefore, the City of Corona Transit System of services will require a strategic and balanced project

development and approach to execute core services within budgetary constraints. Implementation is anticipated to take several years to reach full execution. In addition, all suggested changes for implementation would be subject to the availability of adequate funding, staffing levels, and resources.