Exhibit A

City of Santa Rosa

REIMAGINING CITYBUS

Final Report – Draft for Public Review

Santa Rosa CityBus

NELSON NYGAARD

March 2016

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EXECUTIVE SUMMARY

While service levels have varied over the years, the Santa Rosa CityBus route network has remained more or less the same for more than three decades. Santa Rosa has roughly doubled in size since the last in-depth analysis of its local transit network and the travel markets it is designed to serve. This Comprehensive Operational Analysis (COA), known as "Reimagining CityBus", provides an opportunity to reevaluate the existing services. Through a series of analyses and a comprehensive community engagement process, Santa Rosa CityBus has defined a new vision for itself and for how the system should grow over the next ten years. Reimagining CityBus serves as the roadmap for the development of the transit system in Santa Rosa and provides a framework and set of priorities for transit system changes and investments.

This plan represents the culmination of efforts made by large numbers of stakeholders, City staff and consultants to confirm community priorities and develop a strategic approach for transit service in Santa Rosa.

In developing this plan, City staff took the plan to the people. Dozens of community outreach efforts allowed for Santa Rosa residents, students and employees to share their priorities for improvements to CityBus.

WHY REIMAGINING CITYBUS?

Santa Rosa's population has grown by more than 15% in the last decade to 172,000. As the largest city in Sonoma County, Santa Rosa is the hub of medical services, employment, shopping, and transportation. It has an increasingly vital downtown, two stations along the new SMART rail line, several large employers, expanding residential neighborhoods, and a major junior college with more than 26,000 enrolled students.

As a medium-sized city that largely developed in the postwar era, Santa Rosa presents both opportunities and challenges for effective transit service. The city's north-south and east-west highways (Highways 101 and 12) serve as both throughways and barriers to cross-travel. Similarly, major arterials can act as obstacles to pedestrian connectivity while at the same time being beneficial

for bus operations, despite periodic congestion. The City has also made plans for more sustainable infill development, including mixed-use development around its two new SMART stations.

The CityBus system, in turn, is like many others found in such environments. Notably, it is heavily weighted toward geographic coverage, in line with CityBus policy that 95% of dwelling units in residential areas denser than six units per acre should be within one-quarter mile of a transit stop. In trying to provide this level of coverage with existing resources, the system has encountered a number of challenges:

- The mix of one-way routes and multiple transfer centers makes the system more complex than those in other cities similar in size to Santa Rosa.
- Some routes are circuitous, with long one-way loops, which results in long travel times in at least one direction of travel.
- Routes are generally indirect as a way to provide greater coverage of potential ridership markets.
- The system relies heavily on timed transfers, but growth and traffic congestion have reduced the effectiveness of some of the timed transfers.
- Routes duplicate Sonoma County Transit service in some areas. Although CityBus generally has better service frequencies, some Sonoma County Transit routes provide more direct service and extend beyond the CityBus service area to growing residential, employment, and service destinations.
- CityBus does not serve its high-ridership student and employment markets in ways that can support and build these markets, such as with better peak frequencies, longer service hours, or direct connections to high-demand destinations such as Coddingtown Mall.
- Given the low densities in portions of Santa Rosa, CityBus currently provides more service than may be warranted in some areas.

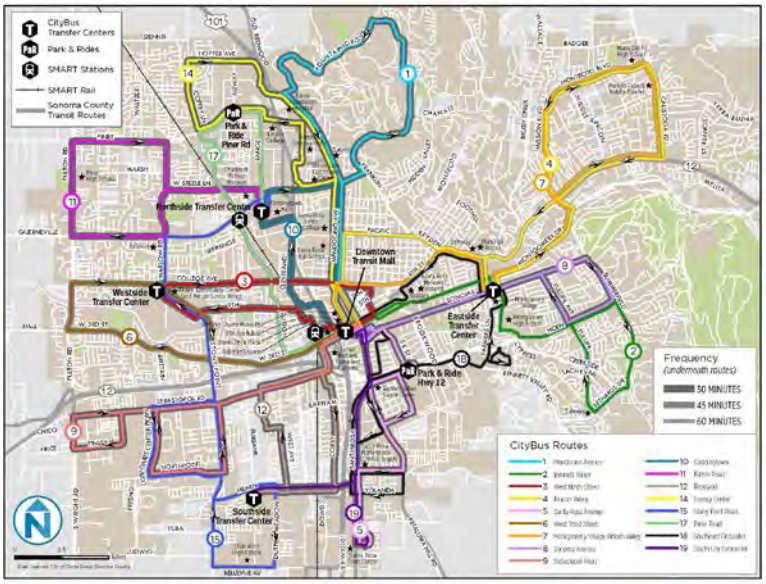
Most transfers between CityBus routes – and to services operated by other transit providers – are made at the Santa Rosa Transit Mall. The Reimagining CityBus plan seeks to improve the reliability of the system to allow for more efficient transfers downtown.

To keep up with population growth, densification and travel demand, Reimagining CityBus offers an opportunity to redefine how Santa Rosa provides service to make the system work better for people who currently use it and more attractive to people who do not.

ARE EXISTING SERVICES EFFECTIVE IN MEETING DEMANDS?

To create a more effective and productive system, planners examined population and employment density, which are the primary factors supporting the success of transit services. Areas with higher concentrations of individuals who represent key transit ridership groups (senior and youth populations, low-income households, households without cars, and people with disabilities) were also evaluated for potential service improvements.

Based on the evaluation of data, planners found that on most major travel corridors, there is sufficient demand for half hourly transit service, and a few areas will support bidirectional service every 15 minutes (such as downtown and much of the Mendocino Avenue-Santa Rosa Avenue corridor) – a level of service that this not consistently in place today.



The existing route network provides good coverage of Santa Rosa, with the highest-frequency services operating every 30 minutes. The question is whether coverage is more of a priority than other types of transit investments.

Planners evaluated existing CityBus routes (CityBus operates 17 fixed routes on weekdays and Saturdays, and 15 routes on Sundays). Most routes operate as elongated one-way loops with bi-directional service aligned along major regional corridors such as Mendocino Avenue, Sonoma Avenue, and Sebastopol Road. All routes begin and end at the Transit Mall in downtown Santa Rosa, with the exception of Routes 10, 11, and 15 which originate and terminate at the Northside Transfer Center (Coddingtown Mall) and Route 16, which originates and terminates at the Oakmont Village Central Complex. Most services are interlined with vehicles continuing on to serve as other routes once they have completed a run.

Route 10, followed by Routes 9 and 11, are the most productive routes, meaning they carry the highest number of passengers per hour (these routes carry between 44 and 52 passengers per weekday revenue hour). An average route carries about 30 passengers an hour. Many routes have on-time performance challenges – eight routes operate late more than 10% of the time, and Routes 4, 7, and 15 operate late more than 20% of the time.

In one of the planning game workshops, community members discussed their priorities and drew route concepts to illustrate their preferences for CityBus service.

In addition to community members, bus operators participated in workshops to highlight elements of the existing CityBus system that are challenges for them and opportunities to improve services for their

Many stops have high numbers of boardings, with Santa Rosa Junior College representing the highest number of boardings in the system outside of the transit centers. A comprehensive analysis of ridership data highlighted the major travel corridors, transfers between routes and boarding and alighting activity, allowing planners to assess where investments should be prioritized in order to better serve and grow CityBus ridership and improve the efficiency of services.

Overall, planners found that existing services are not as effective as they could be.

WHAT SHOULD THE ROLE OF TRANSIT BE IN SANTA ROSA?

In developing an approach for transit in Santa Rosa, planners considered a number of tradeoffs for how to allocate resources.

Asking the Community to Prioritize

Community members shared their priorities in a series of meetings and activities.

Representatives from local organizations, elected officials, community members and bus drivers were invited to participate in planning game workshops held throughout Santa Rosa in March 2015. At the workshops, they were given a limited number of bus hours (to reflect the existing budget of CityBus) and asked to prioritize how they would spend those bus hours. The purpose of the exercise was to help planners confirm what the role of transit should be in Santa Rosa.

In addition to these workshops, City staff conducted outreach to riders at the Transit Mall and Coddingtown transfer center; held interviews with stakeholders; and administered a "Priorities and Trade-offs" survey, getting more than 800 responses. Based on the feedback, the highest priority identified was increased frequency. For both riders and non-riders, "more service that operates in both directions" was a priority, and both stakeholders and members of the public expressed an interest in" more direct service." In addition to better frequencies, evening, and expanded weekend service were identified as priorities. Community members were asked about two important trade-offs at the heart of the Reimagining CityBus process:

would they be willing to walk farther from their home to a bus stop if the bus came more often or was faster or more direct (74% of said they would) and whether they would be willing to transfer between buses if they could get to their destination more quickly (89% said they would).

From a Coverage-Focused Strategy to a More Productive Strategy

At the heart of Reimagining CityBus is determining the right way to provide service based on two competing goals: **Coverage** and **Productivity.**

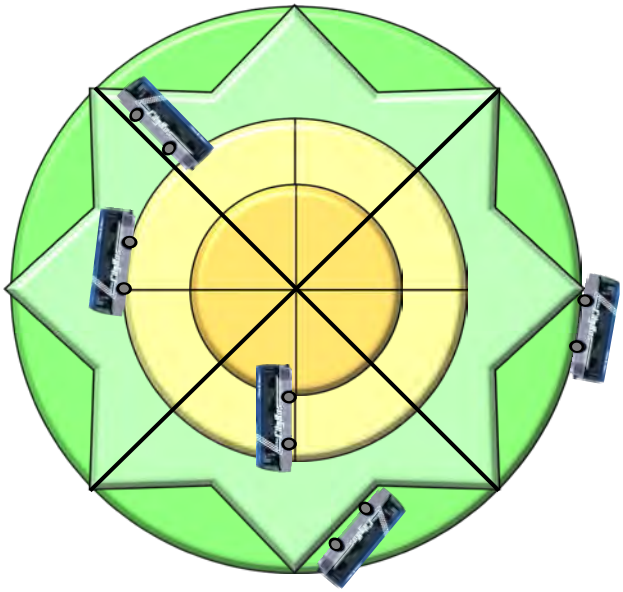
A focus on **coverage** is Santa Rosa's current approach and means service is sometimes operated along one-way fixed routes that may be circuitous, but cover the area. Ridership primarily is comprised of people with limited transportation options. The challenge for the City of Santa Rosa is that by running a coverage-based network, CityBus cannot afford to run frequent, direct, and bidirectional service that provides a higher quality experience for riders. Nevertheless, the key goal of a **coverage focus** is to provide a level of access to individuals wherever they may be, even if routing and schedules are less convenient as a result.

A greater focus on **productivity,** introduced in this plan, puts into place some elements of service design that move Santa Rosa's allocation of resources from circulation to service intensification along corridors in some areas – without abandoning important elements of coverage. The assumption is that transit is a component of the transportation infrastructure, and that its purpose is to move as many people as possible as cost effectively as possible. Thus, the objective of the service plan is to refocus CityBus as an integral part of the local transportation infrastructure, with an increased emphasis on travel time, frequency and ultimately increasing ridership.

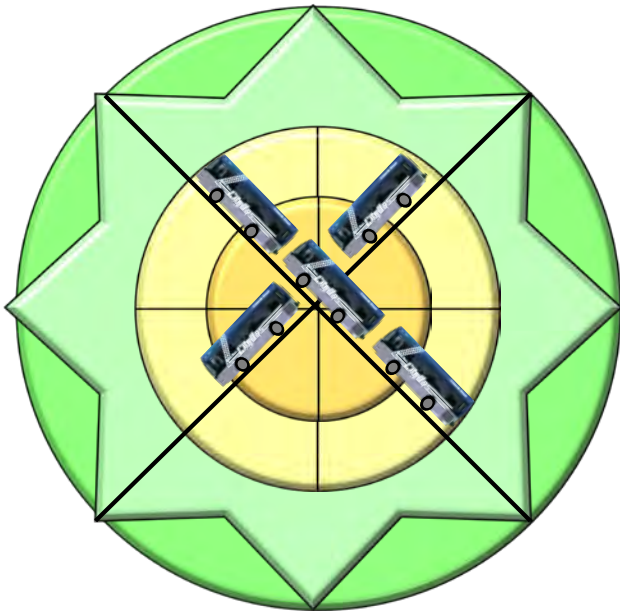
Based on the priorities identified by community members, the City determined the system should be restructured based on the following principles:

- **Frequent Service:** Frequency of service is one of the most important factors in supporting transit ridership. Frequent service allows users to travel when they want, sometimes without relying on or

Two Competing Goals:



100% Coverage Strategy: Buses travel on more streets throughout town, but run infrequently. They provide a little bit of service to everyone.



100% Productivity Strategy: Buses travel frequently on main corridors. They provide a high level of service in a more limited area.

even checking a schedule, and allows transit to approach the level of convenience a road offers motorists: it is there whenever users need or want it.

- **Direct Alignments:** Service planning should prioritize direct alignments to speed transit trips and reduce passenger confusion. While service to out-of-the-way destinations may sometimes require route deviations, routes should generally be as straight as the street pattern allows.

A key objective is to make transit useful for everyone and make the system easier to use so that CityBus can attract new riders to transit.

Through survey and outreach efforts, City staff reached out both transit riders and non-riders to make sure their priorities were incorporated into the planning process.

- **Bi-Directional (Two-Way) Service:** To the extent possible, long segments of one-way service should be converted to bi-directional service. Any loss of coverage from conversion of one-way to bi-directional service should be evaluated against the benefits of providing faster, more convenient, and more understandable service to riders.
- **Strong Anchor Points:** Starting and ending routes at strong anchor points or transfer points promotes high ridership along all route segments.
- **Spacing Between Routes.** To maximize use of operating resources and avoid duplication of services, routes should in most cases be spaced to avoid multiple lines serving the same corridor.
- **Connectivity Between Routes**. While riders typically prefer not to transfer, well-designed connections between routes can maximize the effectiveness of the entire transit network, and can even reduce overall trip times for passengers.

WHAT IS RECOMMENDED TO ADDRESS THE NEW PRIORITIES FOR TRANSIT?

In developing recommendations for CityBus, the challenge was to identify areas that have too little service or more service than is warranted, to identify areas where the complexity of the services and long travel times result in lower use of the system, and to highlight areas where investments in more frequent or direct service would benefit current riders and attract new ones.

Two service plans are recommended. The plan for the **short-term** (Phase I) assumes existing funding or only a modest increase in funding is available for the foreseeable future. The other, **longer-term**, service plan (Phase II) requires additional resources

to implement and, in some cases, assumes new residential or commercial development is in place to support service expansion.

Phase I

Phase I recommendations can be implemented with existing vehicles and staffing levels. However, these services may require additional capital investment in infrastructure improvements (new or relocated bus stops, sidewalk improvements, additional bus stop amenities, etc.). Phase I also maintains much of the overall footprint of service coverage that exists today, with strategic reductions of service in specific areas with low ridership to allow for much higher levels of service in the corridors with the greatest numbers of riders.

The short-term recommendation proposes increasing service frequencies, with major trunk routes operating every 15 to 30 minutes all day. Most local routes would operate every 30 minutes and some circulator routes and routes linking lower-density residential neighborhoods would operate every 60-70 minutes. When appropriate, routes were adjusted so one-way service was converted to bi-directional service and routes were redesigned to provide direct service to strong anchor points (e.g., retail centers and schools).

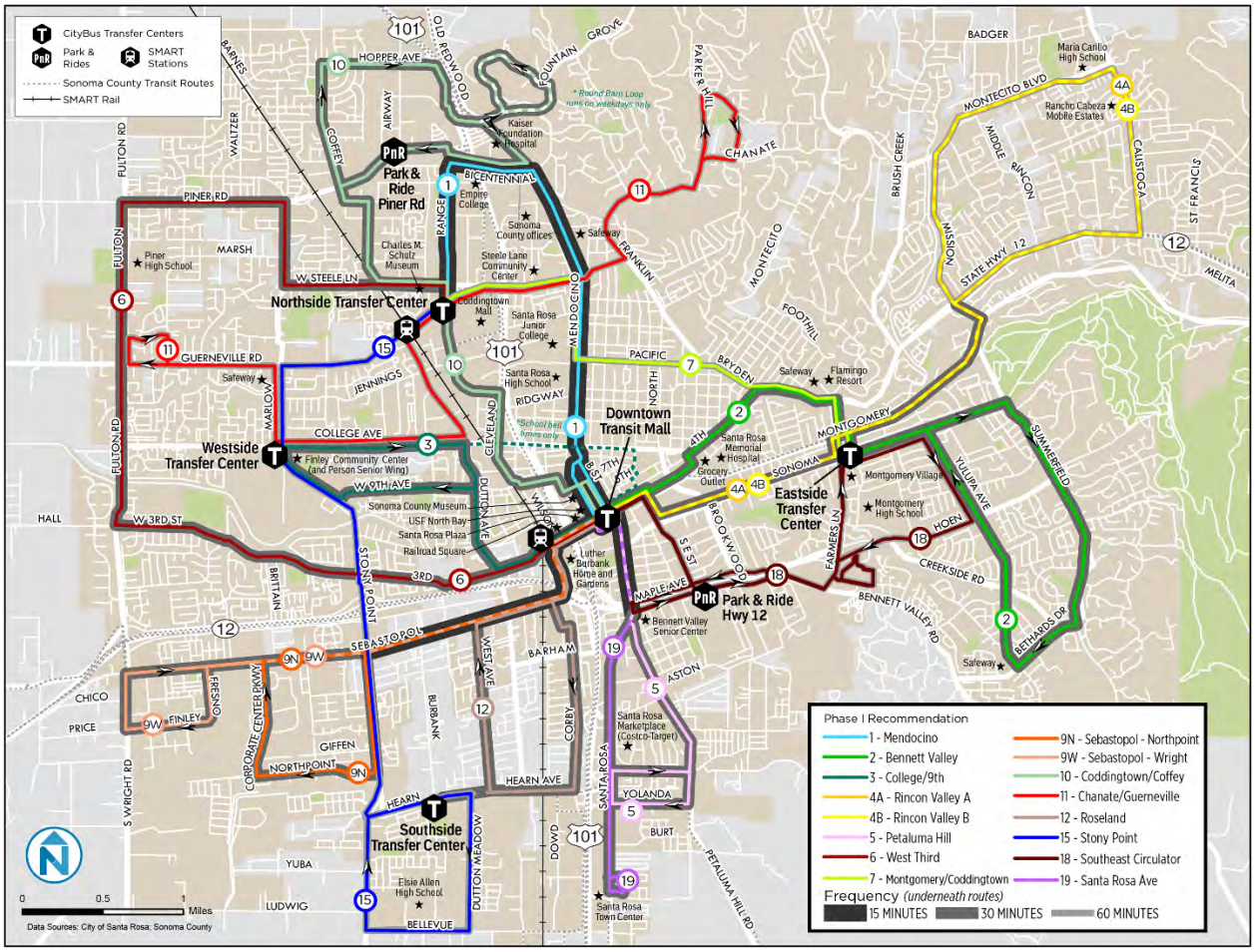
The proposed service plan will offer frequent and direct connections to both of Santa Rosa's SMART stations from downtown and locations throughout the city.

Figure ES-1 shows the short-term recommendations. These route recommendations assume the following:

- It is assumed that given current funding limitations, weekday, Saturday, and Sunday spans of service will mirror those of current service, with most routes operating between roughly 6:00 a.m.-8:00 p.m. on weekdays, 7:30 a.m.-7:30 p.m. on Saturdays, and 10:00 a.m.-5:00 p.m. on Sundays.
- Routes 1 and 9N/9W would be interlined, offering a one-seat ride connecting Mendocino Avenue and Sebastopol Road based on the consideration that this is a predominant travel pattern in the CityBus system. Interlines are also proposed for Routes 5 and 12, and for Routes 6 and 10.
- While schedules will be finalized following adoption of the plan, draft schedules have been prepared to model coordinated transfers for such trips as a connection between the new Route 11 and new Route 6 to facilitate access to Piner High School at the morning bell time, and Route 4A/4B to connect with Route 7 at Montgomery Village for travel to SRJC and Coddingtown. In general, school bell times are a key factor driving bus schedules.

- Weekend service is expected to follow the current pattern, with routes generally operating at half their weekday frequency on weekends.
- Both Santa Rosa SMART stations will be well served by transit lines. In addition, CityBus staff are working to support efforts by employers to initiate shuttle service connecting the Santa Rosa North station to employment sites, as well as working with other City staff to evaluate options for a downtown shuttle service connecting with the Santa Rosa Downtown station.

Figure ES-1 Phase I - Short-Term Service Recommendation Map



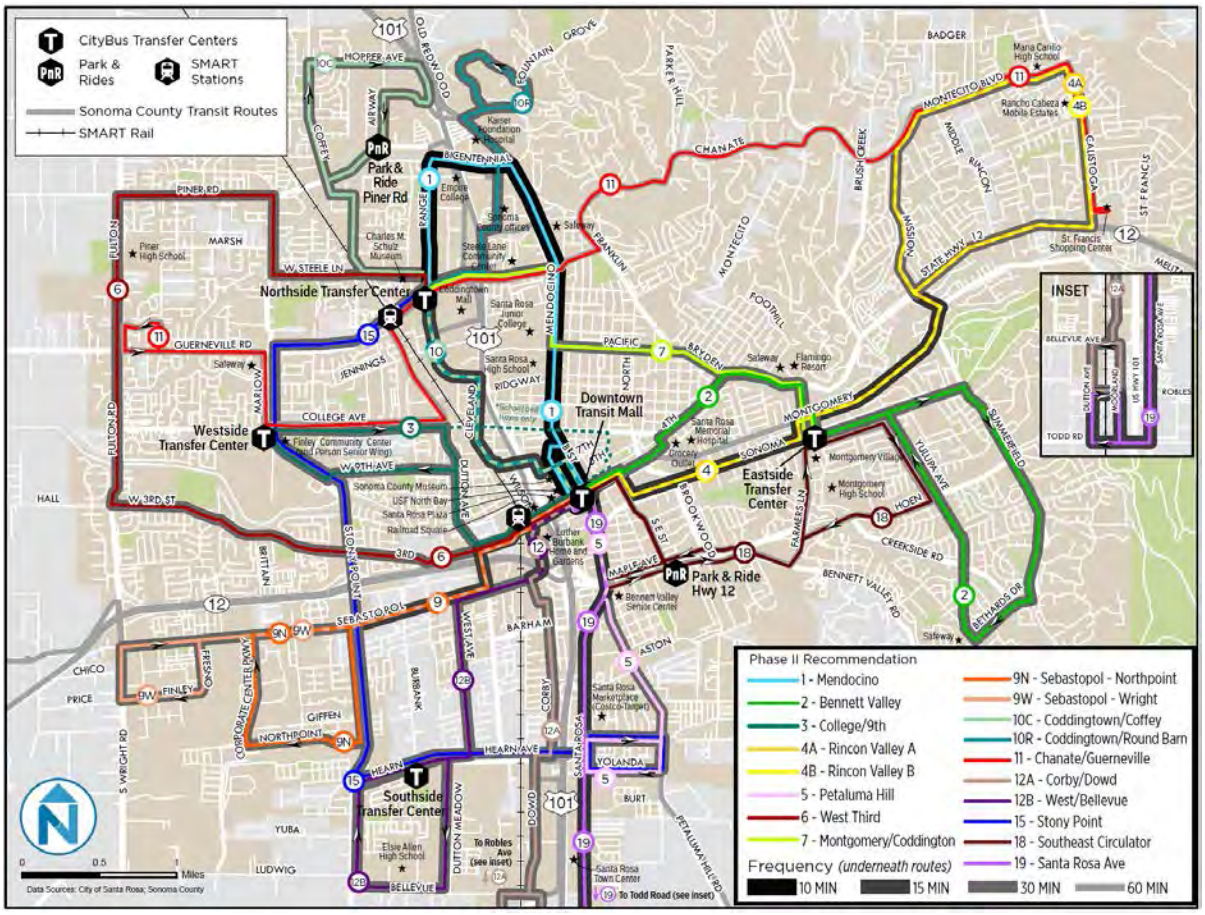
Phase II

Longer term Phase II recommendations respond to current and future needs and anticipated growth and development in Santa Rosa over the next 10-15 years. Recommendations relate to expanded hours of operation, increased frequencies, and route expansion. Phase II assumes

- Increased Sunday service hours (hours of operation matching those of Saturday)

- A night service option to provide local circulation at least until 10:00 p.m., and ideally until 11:00 p.m. to accommodate college students, second-shift workers, and others.
- Increased frequency on Mendocino Avenue to 10 minutes, making it a "transit-emphasis corridor."
- Increased frequencies throughout the system and expanding other core routes such as those serving Santa Rosa Avenue and Sonoma Avenue/Montgomery Drive to 15-minute frequencies.
- Restructuring services in northern and southwest Santa Rosa to allow for more direct, bi-directional routing in areas in areas that are slated for local loops in the short term.
- Extending a northern crosstown route (Route 11) to serve as a new link providing service between Coddingtown and the Rincon Valley.

Figure ES-2 Phase II – Longer-Range Service Recommendation Map



HOW WILL SANTA ROSA PAY FOR IT?

Throughout the Reimagining CityBus project, the goal has been to identify a Phase I service that can be implemented within the existing budget for transit operations. The Phase I recommendation presented in this report requires only a very slight increase in service hours from existing levels. Implementation of the full vision for Phase II, however, will require a substantial investment in both transit operations and capital projects, well beyond the funding that is currently available from CityBus' regular sources of funds.

This plan is the first step in making that vision a reality. The Phase I recommendation provides a solid foundation to build on, and the Phase II recommendation provides a compelling vision to work towards. Following adoption of the final plan for Reimagining CityBus and implementation of the Phase I service, City staff will continue to refine Phase II service proposals and cost estimates, and will work closely with funders, community partners, and the City Council to take advantage of opportunities to phase in elements of the Phase II recommendation over time. As new opportunities present themselves, CityBus will be well-positioned to pursue them

1 INTRODUCTION

In March 2015, the City of Santa Rosa's Transit Division began work on Reimagining Santa Rosa CityBus—the first comprehensive re-evaluation of the CityBus system in over 25 years. The goal of Reimagining CityBus is to develop a new service plan for Santa Rosa's transit system that:

- Makes CityBus more useful and convenient by better matching CityBus routes and schedules to current and future travel patterns, needs, and priorities for Santa Rosa residents and visitors
- More closely links transit planning with land use planning
- Improves the efficiency and effectiveness of the bus system, and
- Lays the groundwork for a system that can grow and develop over time to meet future needs.

The project also includes development of a phased longer-range vision for further development of the CityBus system to guide future transit investments and inform City of Santa Rosa land use and transportation planning activities.

Reimagining CityBus was designed to provide a comprehensive evaluation of how well the CityBus system is meeting current needs and rider expectations, from the network level down to individual route segments, through detailed planning analysis and extensive community engagement. A community conversation about the role of transit in Santa Rosa and the approach to transit system design that best fits Santa Rosa today has been at the heart of the process. This report reflects the outcomes of these activities over the past year and proposes both a new transit network to be implemented later in 2016, and a vision for further development of the system as additional funding becomes available and as Santa Rosa continues to grow and develop.

OPPORTUNITIES AND TRADE-OFFS

Through public outreach and planning analysis, CityBus staff and consultants identified many opportunities to improve the transit system, including more frequent service, more direct route alignments, reduced duplication of routes, conversions of one-way routes into two-way service, and extended hours of operation on weekends and in the evening hours. However, because the short-term service plan is tied to current budget levels for transit operations, difficult choices had to be made in developing this plan.

At the heart of these choices was a series of trade-offs. For example, faster, more direct service that stays on major arterials can result in less coverage on neighborhood streets and longer walks to bus stops for some riders. Similarly, converting one-way to two-way service makes the bus system easier to navigate and reduces out-of-direction travel, but because two-way service costs

twice as much to operate as one-way service, two-way routes operate on a more limited network of streets than one-way service. Finally, in a budget-neutral plan, additional weekend or evening hours means that service must be reduced on weekdays.

CityBus staff used public feedback, City Council input, analysis of ridership patterns, and industry best practices to navigate these choices in an effort to find the "sweet spot" between allocating resources to improve service in the highest ridership areas and services designed to retain coverage and lifeline access in lower ridership areas.

THE PLANNING PROCESS

The service recommendations contained in this draft plan were developed through a planning process that has emphasized public participation and input as well as careful analysis of transit service needs in Santa Rosa and the performance of the current CityBus system.

The major steps in the process are outlined below.

- **Market Analysis**—A detailed examination of demographic patterns, land use changes, and travel patterns was conducted to provide a solid foundation for the planning process. Data from the U.S. Census, Sonoma County Travel Model, CityBus passenger surveys, and CityBus fareboxes was used to identify areas with higher transit demand and understand current and anticipated future travel patterns in Santa Rosa. The Market Analysis also took into consideration current land use planning and development activities that will affect transit needs into the future.
- **Line-by-Line Analysis**—Using data generated from CityBus' automated vehicle location (AVL) and automated passenger counter (APC) system, CityBus' consultants identified ridership patterns along the course of each route, and by time of day. APC data was used to identify the highest and lowest ridership route segments in the CityBus system, down to the bus stop level. The Line-by-Line Analysis evaluated current running times and identified routes with on-time performance issues.
- **Priorities and Trade-offs Outreach**—To complement the findings of the Market Analysis and Line-by-Line Analysis efforts, City staff conducted extensive outreach during the spring of 2015 to engage riders and non-riders in a conversation about priorities for changes to the CityBus system and key trade-offs (e.g., willingness to walk further to better bus service). Outreach during this phase included workshops with a hands-on planning exercise, a survey administered both online and in hard copy (more than 800 responses collected), public engagement conducted at several large community events, and stakeholder meetings and interviews.
- **Service Design Guidelines**—City and consulting staff used the data and public feedback collected in the first phase of the project to develop a set of Service Design Guidelines. These guidelines provided the policy framework to guide service planning for the Reimagining CityBus project. The Service Design Guidelines were adopted by the City Council in August 2015 and are provided as Appendix A.
- **Service Scenarios**—The Service Design Guidelines were used to develop a set of three scenarios for redesign of the CityBus system, including two short-term budget-neutral scenarios and one longer term "growth" scenario. Of the two short-term scenarios, one was more focused on maintaining coverage on certain streets, and the other was more

focused on increasing the frequency and directness of routes serving the most popular corridors.

- **Service Scenarios Outreach**—Following release of the Service Scenarios for public comment, City staff hosted or participated in over 40 meetings, events, and other outreach activities to generate public feedback about preferences and areas of concern.
- **Preliminary Recommendation**—Based on the results of public outreach, a single preliminary recommendation for the short-term service plan was developed and brought to the City Council for a study session in February 2016. The Preliminary Recommendation identified a proposed route network and "areas of concern" for further evaluation and analysis.
- **Draft and Final Plan**—This draft plan refines the preliminary recommendation, and proposes adjustments and additions to address several of the "areas of concern" identified in the Preliminary Recommendation. During March and April 2016, a final round of public outreach will occur to garner public feedback. Efforts will include direct outreach to transit riders, a survey, a public meeting, a webinar presentation, and a public hearing.

Following completion of outreach activities, a final plan with any changes resulting from public and City Council feedback will be prepared for adoption by the City Council.

OVERVIEW OF THIS REPORT

This report contains the following chapters:

- Chapter 1: Introduction
- Chapter 2: Summary of Existing Conditions, Market Analysis, and Public Input
- Chapter 3: Service Design Guidelines and Planning Approach
- Chapter 4: Short-Term Service Recommendations (Phase I)
- Chapter 5: Longer-Term Service Recommendations (Phase II)
- Chapter 6: Financial Implications

Readers who are particularly interested in the short-term (Phase I) or longer-term (Phase II) service plans can choose to focus on Chapter 4 and Chapter 5. Helpful background information supporting the recommendations found in those chapters—including summaries of public input received during the earlier phases of the project—can be found in Chapter 2 and Chapter 3. Finally, Chapter 6 addresses the financial implications of the Phase I and Phase II recommendations.

Comments on this report can be sent to Rachel Ede, Project Manager, at rede@srcity.org. They may also be mailed to or dropped off at the CityBus offices in Santa Rosa City Hall, Room 6 (100 Santa Rosa Avenue, Santa Rosa 95404). Comments may also be submitted via the online comment form on the Reimagining CityBus webpage (www.srcity.org/reimagining) and at the various outreach events planned for April 2016. Additional information—including the schedule of planned outreach events and documents related to the Reimagining CityBus project—is available at www.srcity.org/reimagining. A schedule of outreach events is also available onboard all CityBus vehicles and at the CityBus customer service counter at City Hall.

2 SETTING THE STAGE – SUMMARY OF MARKET ANALYSIS AND EXISTING SERVICES

COMMUNITY OVERVIEW

Santa Rosa is the county seat of Sonoma County and is the fifth largest city, based on population, in the Bay Area. According to US Census Bureau data, the current population is nearly 172,000. This represents about a 15% increase over the last decade.

As a medium-sized city largely developed in the postwar era, Santa Rosa presents both opportunities and challenges for effective transit service. Although its historic downtown is relatively vibrant, the overall land use pattern is generally dispersed. Major public and private institutions and commercial developments are located throughout the city – some of them in outlying areas – and residential neighborhoods have generally low- to-moderate densities, although the City has made plans for more sustainable infill development, including mixed-use development around its two new Sonoma-Marin Area Rail Transit (SMART) stations.

Population and Employment

As shown in Figure 2-1, the population density of Santa Rosa is distributed relatively evenly across the four quadrants of the city. Higher concentrations of population are located towards the neighborhoods surrounding downtown and along the US 101 corridor, and pockets of moderate and high residential density are spread throughout the city. The northwest quadrant of the city is the most consistently populated at moderate densities, while the lowest density areas are in the northern and eastern reaches of the city. When overlaid with existing transit routes, the CityBus network roughly mimics the distribution of medium and high population density within the city.

Figure 2-2 shows the density of jobs in the city, and the location of business parks and the city's largest employers[1]. Employment density is far more concentrated than population density, and is largely centered in downtown and along the US 101 and Highway 12 corridors. The two largest employers, Sonoma County and Kaiser Permanente, are both located near the Bicentennial Way/Mendocino Avenue corridor along US 101, about two miles north of downtown. It is important to note that higher-income professionals do not currently form a large share of

[1] The primary location of each employer is shown on the map, though in some cases the employees are located at multiple locations in the city.

CityBus' ridership, according to rider survey data, but they may represent a potential growth area in a system that is able to more effectively serve job locations with more direct links.

Santa Rosa Junior College (SRJC), with nearly 1,400 employees and over 26,600 students, is another major source of demand for transit ridership. CityBus and Sonoma County Transit both serve the SRJC via the Mendocino Avenue corridor. Sonoma County Transit currently offers free rides to college students, which could shift some student riders away from CityBus unless a similar discount is offered (potentially through a student pass arrangement with the college). However, CityBus offers much higher service frequencies than Sonoma County Transit in this corridor.

Figure 2-1 Population Density in Santa Rosa

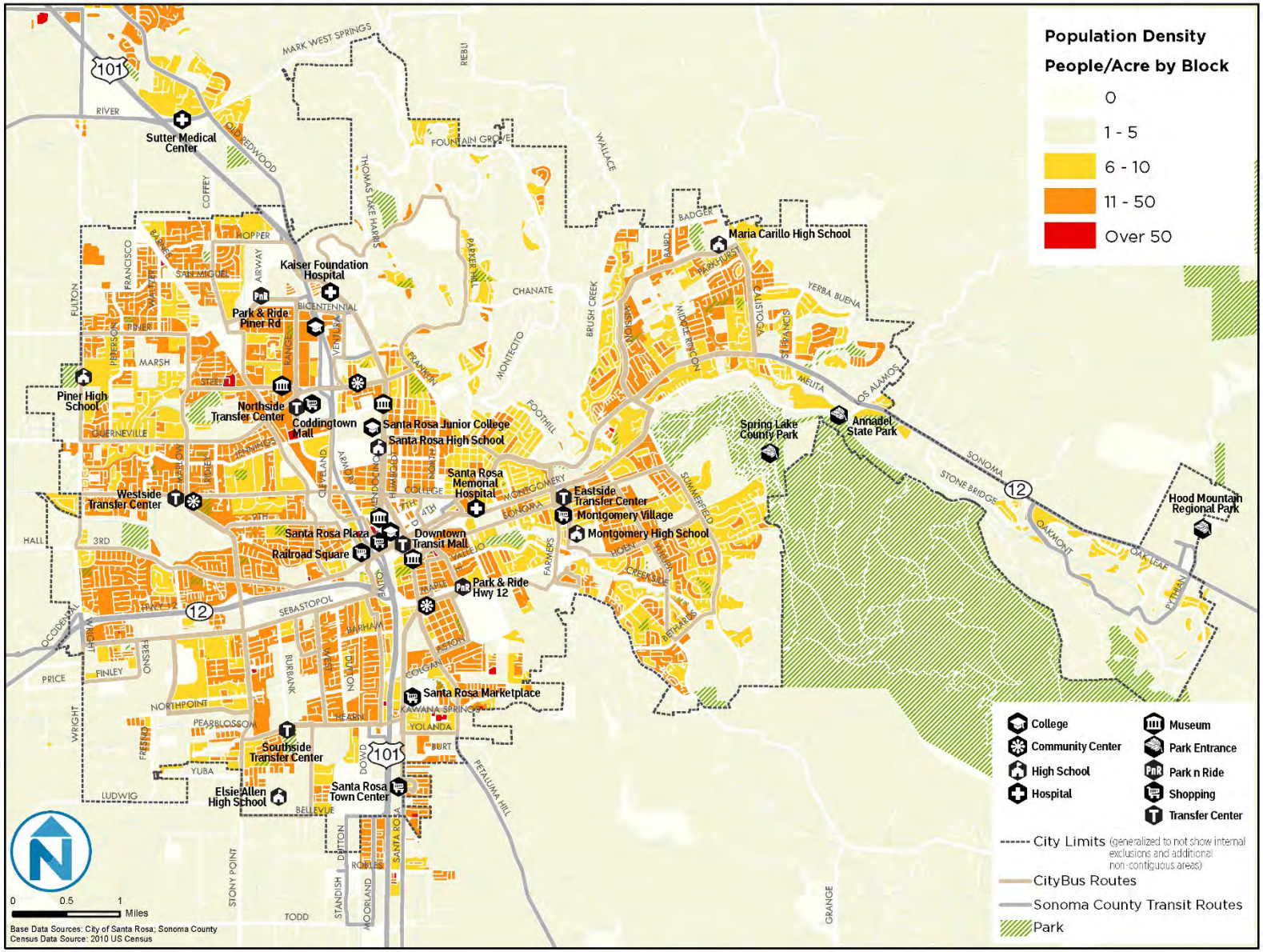
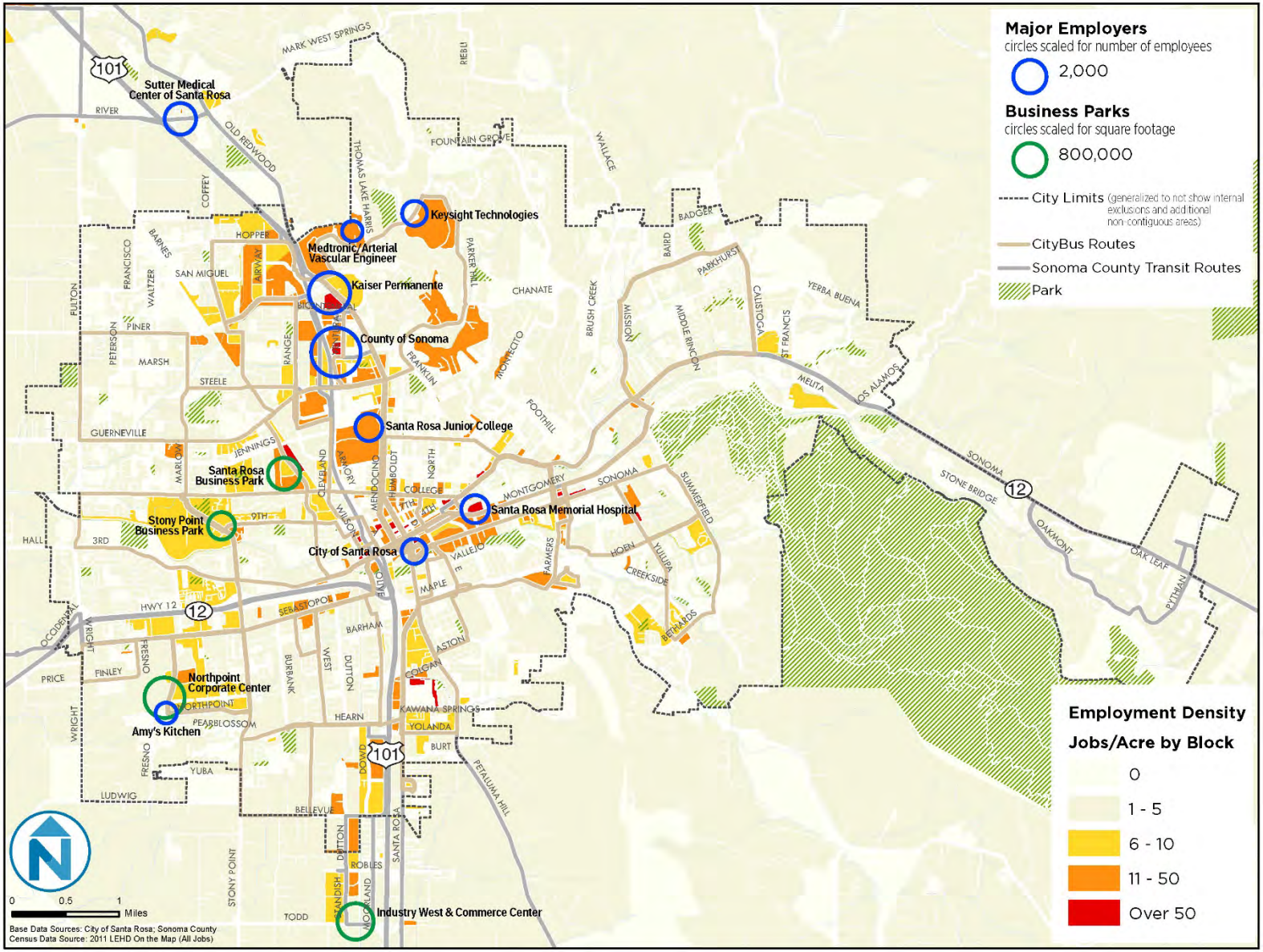


Figure 2-2 Employment Density in Santa Rosa



Demographics

While population and employment density are the primary factors supporting success of transit services, areas with higher concentrations of individuals who have a higher propensity to use transit services are also a key consideration in transit service planning. Based on transit industry experience as well as ridership patterns in Santa Rosa, key population segments that are more likely to use and rely on public transportation include:

- Senior and youth population
- Low-income households
- Households with zero vehicle ownership
- People with a disability

This section provides an overview of the distribution of groups with a higher likelihood to use transit within Santa Rosa.

Seniors

Figure 2-3 shows the geographic distribution of seniors (65 years and above) in Santa Rosa. Overall, 13% of Santa Rosa residents are 65 years of age or older. Some census tracts to the far east of the city's center have senior populations above 40%. A key contributor to this is the Oakmont Village Active Adult Community, with over 4,500 residents located on the eastern extreme of the city's boundary along Highway 12. At present, this area is served by a CityBus deviated fixed route, though direct service from downtown is provided by Sonoma County Transit Route 30. Although a high proportion of seniors does not necessarily indicate higher transit ridership, seniors who use transit may be more likely to depend on it due to disability, lack of access to other modes, or fixed income. Additionally, many activity sites of particular importance to seniors, such as medical and shopping facilities, are located away from the highest concentrations of seniors in Santa Rosa, further highlighting the importance of providing quality transit service to this population.

Youth

Figure 2-4 shows the geographic distribution of youths (5 to 17 years old) in Santa Rosa. Overall, 24% of Santa Rosa residents are under the age of 18. The census tracts with the highest proportion of youth residents (above 30%) are located south of the city center, west of the US 101 corridor, and east of Petaluma Hill Road. The census tracts that exhibit the highest percentages of youth have average median household incomes below that of the average for the city, combining to create strong potential transit demand south and southwest of downtown.

Median Household Income

Figure 2-5 illustrates the median household income by census tract in Santa Rosa. The median annual household income in Santa Rosa was $60,354 according to 2009-2013 American Community Survey data, roughly $3,000 less than the countywide average. The lower-income census tracts in Santa Rosa—those with median household incomes below $60,000—are dispersed throughout the four quadrants of the city, with a concentration in the city center and along the north-south spine of the city, on both sides of US 101. The highest-income census tracts are located to the northeast of the city center and in the southeast corner of the city near Annadel State Park.

Households without Vehicles

Figure 2-6 shows the distribution of households without access to a vehicle in Santa Rosa. People living in households without access to a vehicle are generally much more likely to ride transit than those with vehicle access. Individuals in these households may be unable to afford a vehicle, may be unable to drive, or may prefer not to drive, all of which greatly increase the likelihood of transit use. On the whole, Santa Rosa's share of car-free households (5.9%) is slightly above that of Sonoma County (5.2%), but in centrally located census tracts where household incomes tend to be lower, rates exceed 15%. The area west of US 101 and south of Bicentennial Drive (just north of Coddingtown Mall) also exhibits a high share of car-free households, in addition to being an area with higher population and job density. Some of the tracts to the southeast with the lowest instances of car-free households also exhibit higher household incomes and a greater share of senior population.

People with a Disability in Santa Rosa

Figure 2-7 displays the distribution of the population with a disability by census tract (this includes all forms of disability, regardless of whether they impact an individual's ability to drive a car). Based on 2009-2013 American Community Survey data, 12.4% of the population of Santa Rosa was reported to have a disability, which may affect options for travel. The tracts that represent the highest percentage of disabled populations—on the far east side of the city—also exhibit the highest concentration of senior populations. This area is difficult to serve with traditional fixed-route transit, due to its distance from the city center, low density, and winding street pattern. Vehicle access data also indicates that nearly all households in the far eastern region of the city have access to a vehicle, and therefore may be less likely to take transit, though some households may have at least one person who is no longer able to drive. There are also significant concentrations of people with a disability to the immediate north and east of downtown. These areas can be served by transit much more effectively, given their close proximity to downtown, the regular street grid, and higher population densities.

Figure 2-3 Seniors in Santa Rosa

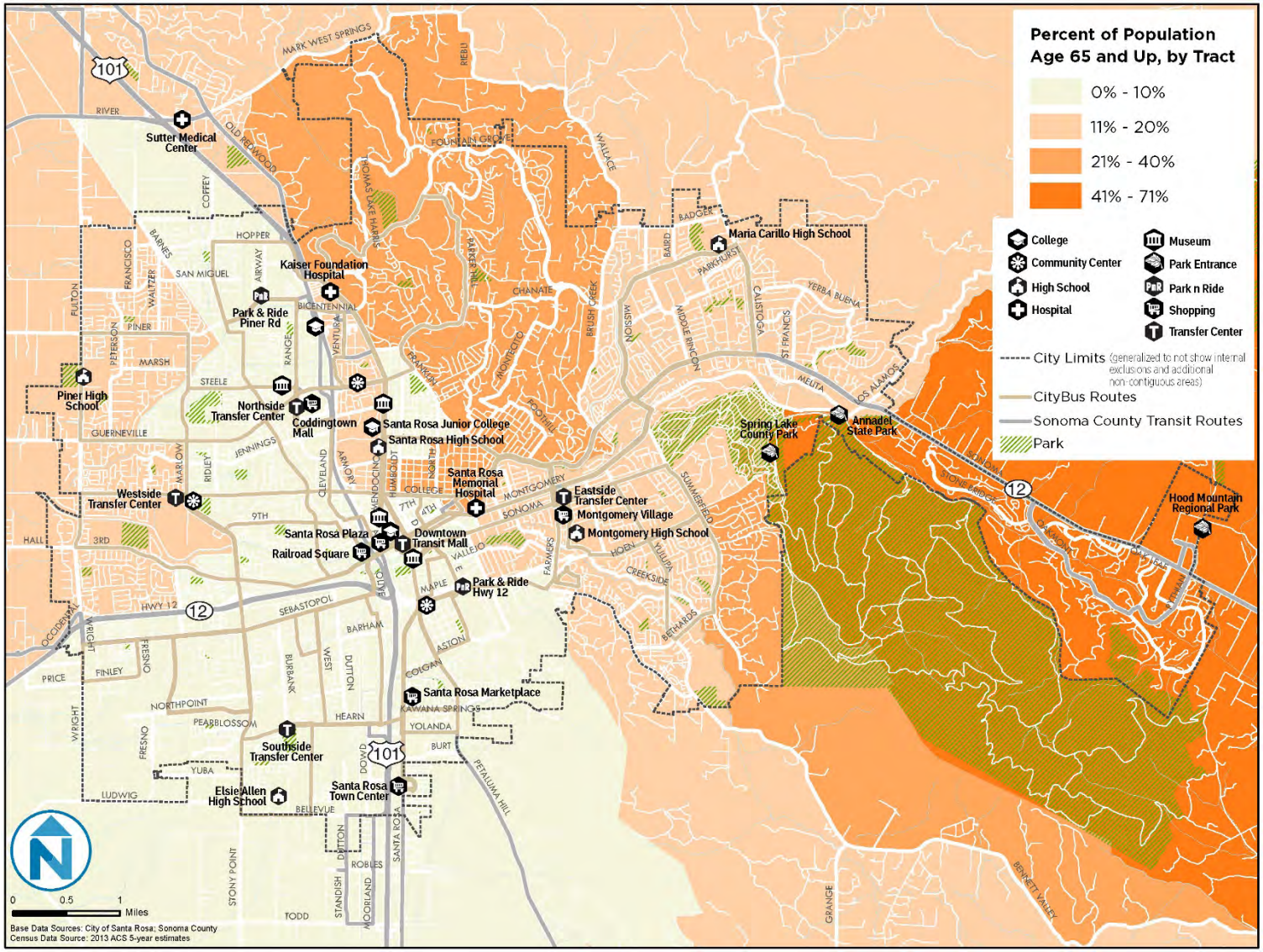


Figure 2-4 Youth in Santa Rosa

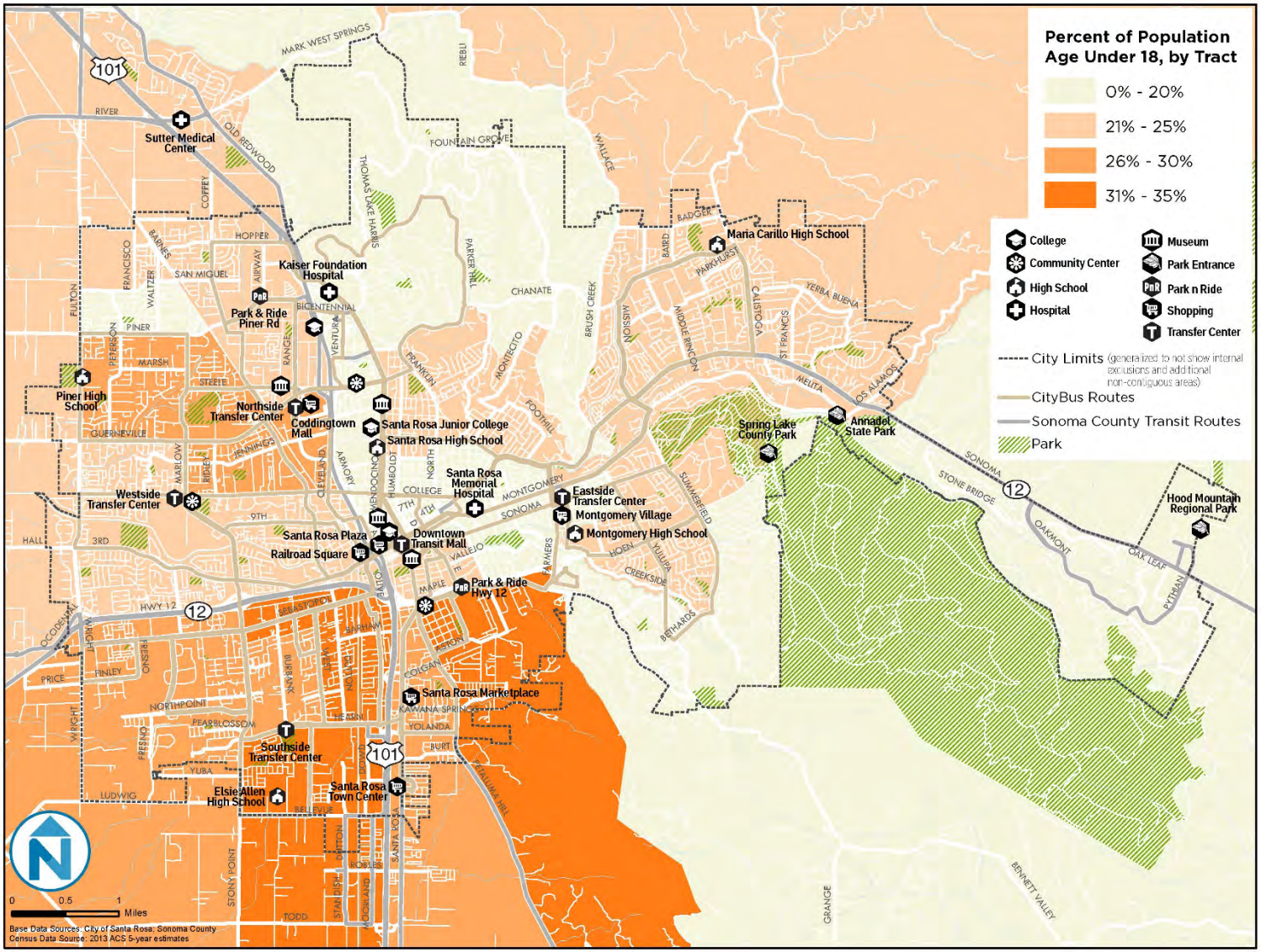


Figure 2-5 Median Household Income in Santa Rosa

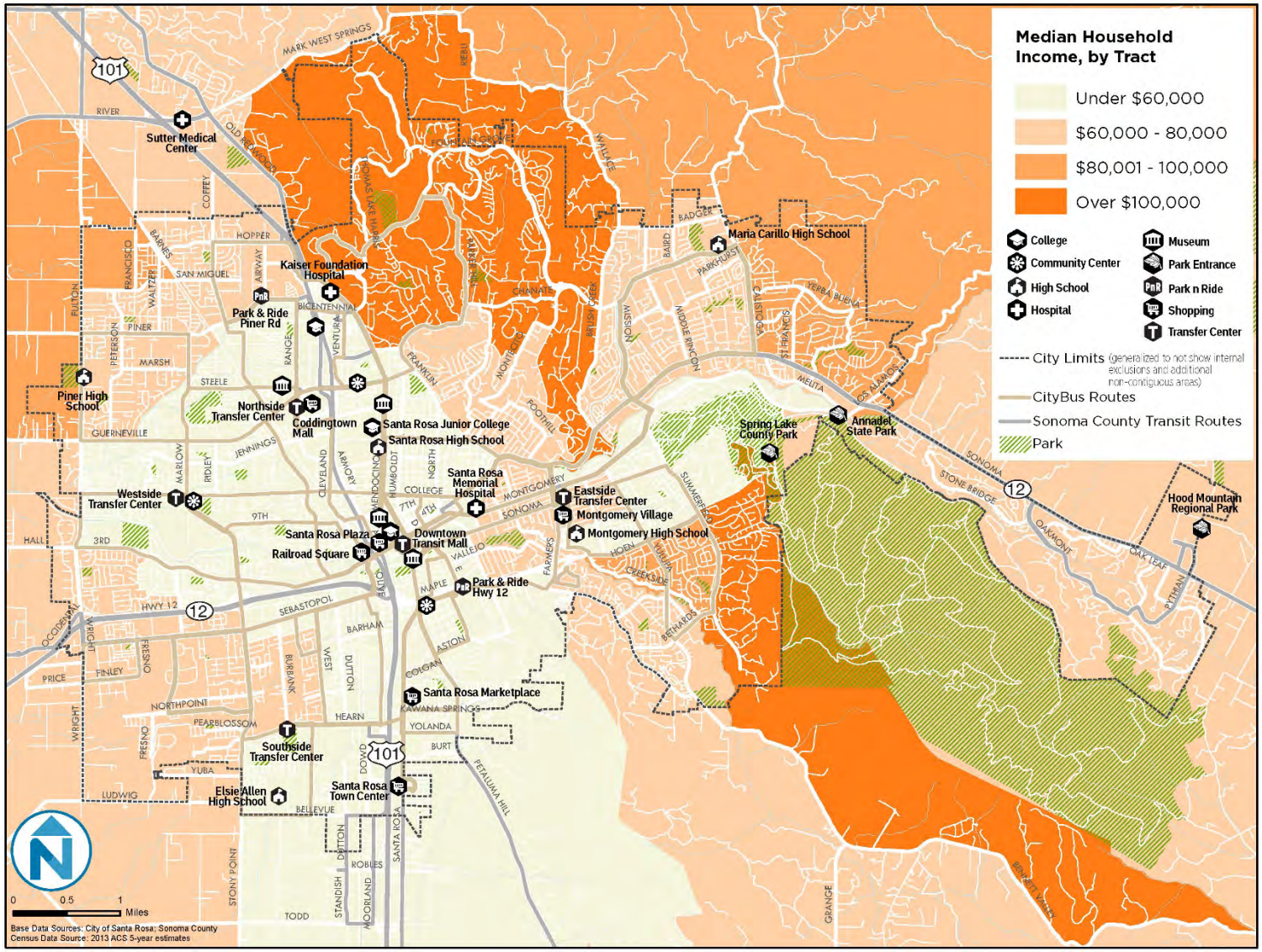


Figure 2-6 Households Without Access to a Vehicle in Santa Rosa

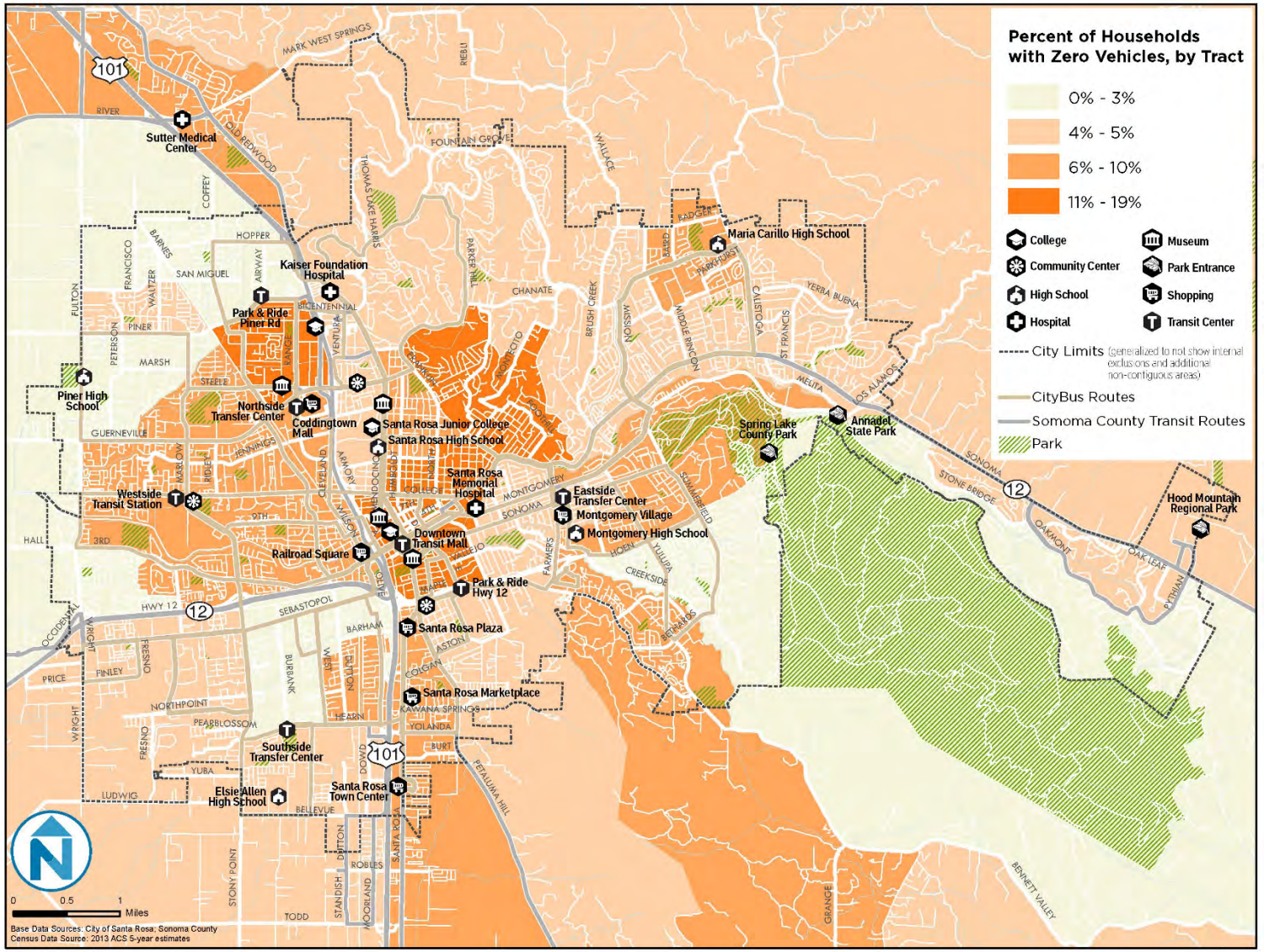
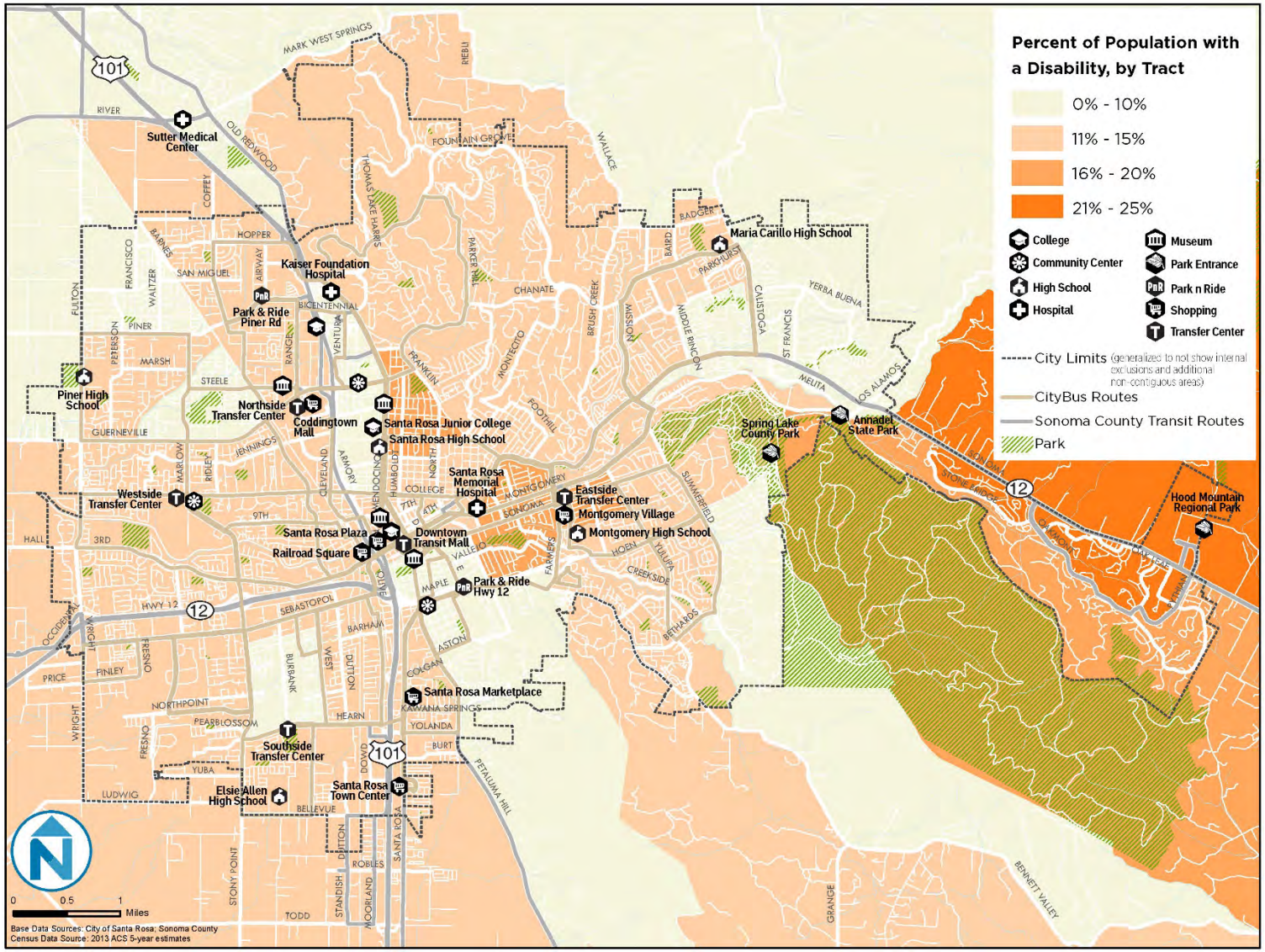


Figure 2-7 People with a Disability in Santa Rosa

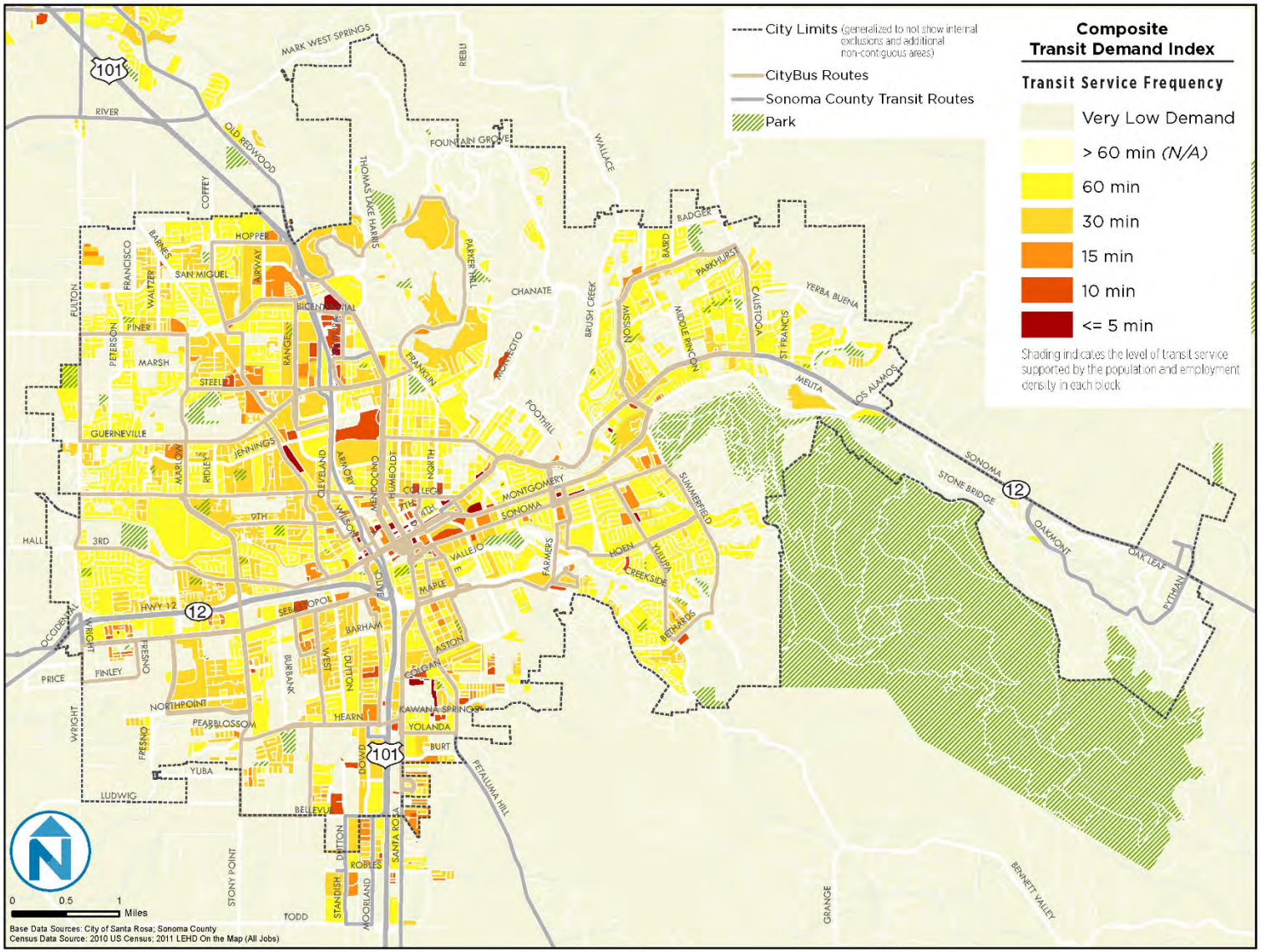


Transit Demand Index

As discussed above, population and employment density are both important factors that influence transit demand. Taken together, these two factors help to determine the frequency of transit service that is warranted to meet demand in a given area. Figure 2-8 presents a composite transit index that was created by combining population and employment densities. This transit demand index analysis is based on research into the levels of demand for transit service typically associated with different residential and employment densities. The shading represents the conceptual level of transit service that could be supported by the population and employment density in each block. As can be seen in the map, nearly the entire city is dense enough to warrant hourly bus service. On most major travel corridors, there is sufficient transit demand for half hourly service, and certain areas could support service every 10 or 15 minutes, such as downtown and much of the Mendocino Avenue-Santa Rosa Avenue corridor. In general, the existing CityBus network provides transit service in all areas where at least hourly headways are supported by demand, but the areas with the highest demand that could support 15-minute headways generally do not have service that frequent (even when more than one route operates in the same corridor).

Although the highest employment and population density is clustered near downtown, small pockets of density are spread throughout the city. It should be noted that census employment data includes many different types of jobs, and some job locations (e.g., retail centers and offices) are more amenable to transit service than others (warehouse parks). In some cases, an important employment center such as the office parks on Fountaingrove Parkway have sufficient density to warrant transit service, but are not adjacent to other areas with strong transit demand. Such “leapfrog demand” is difficult to serve effectively because bus routes may pick up few riders on the way to serving these areas. Continuous corridors of density are therefore more effective for transit than isolated pockets of demand.

Figure 2-8 Composite Transit Demand Index Map



Origins and Destinations

A robust and detailed picture of travel patterns in the city and surrounding counties is provided based on an analysis of origin-destination pairs from the 2012 on-board survey of CityBus riders, using a statistically-valid survey design, and the Sonoma County Travel Model.

Figure 2-9 highlights the top 100 origin-destination pairs of trips (using any mode of transportation) ending in Santa Rosa by traffic analysis zones (TAZ). A number of general findings may be drawn from this analysis. There is also a clear orientation of trips along the city's major north-south axis (Santa Rosa Avenue and Mendocino Avenue). The SRJC area is a major destination accounting for a high share of trips, overshadowing secondary concentrations of trip activity downtown, at Coddingtown Mall, and at Santa Rosa Plaza, as well as TAZs with high schools located in them. CityBus rider origins and destinations reflect these patterns, and also illuminate concentrations of activity in higher ridership areas such as southwest Santa Rosa, the West Steele Lane/Coddingtown area, the Stony Point Road/Marlow area, and Montgomery Village. Figure 2-10 provides a similar analysis for home-based work trips with a destination in Santa Rosa.

Figure 2-9 Origins and Destinations of Trips Ending in Santa Rosa by TAZ – All Trips

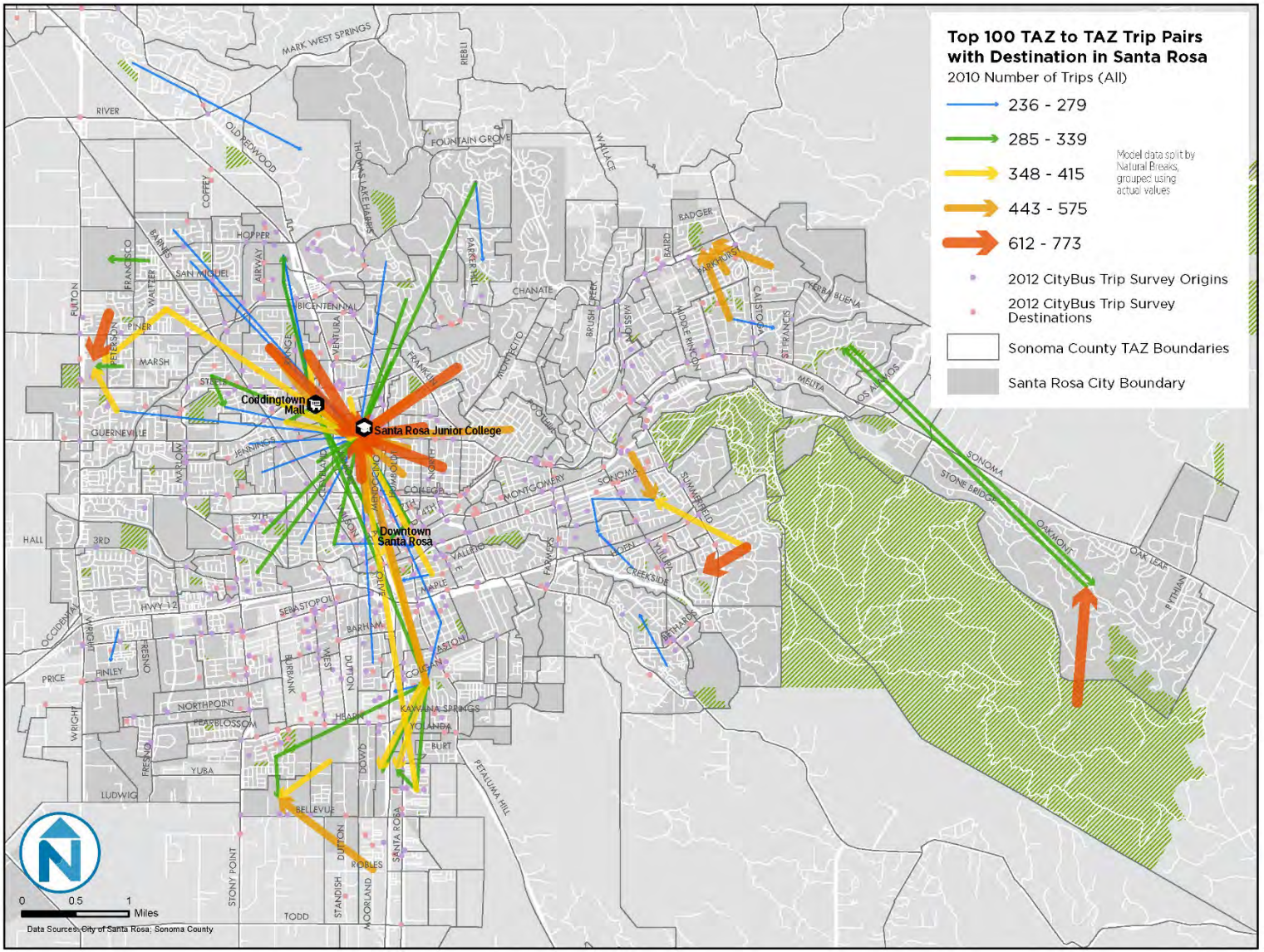
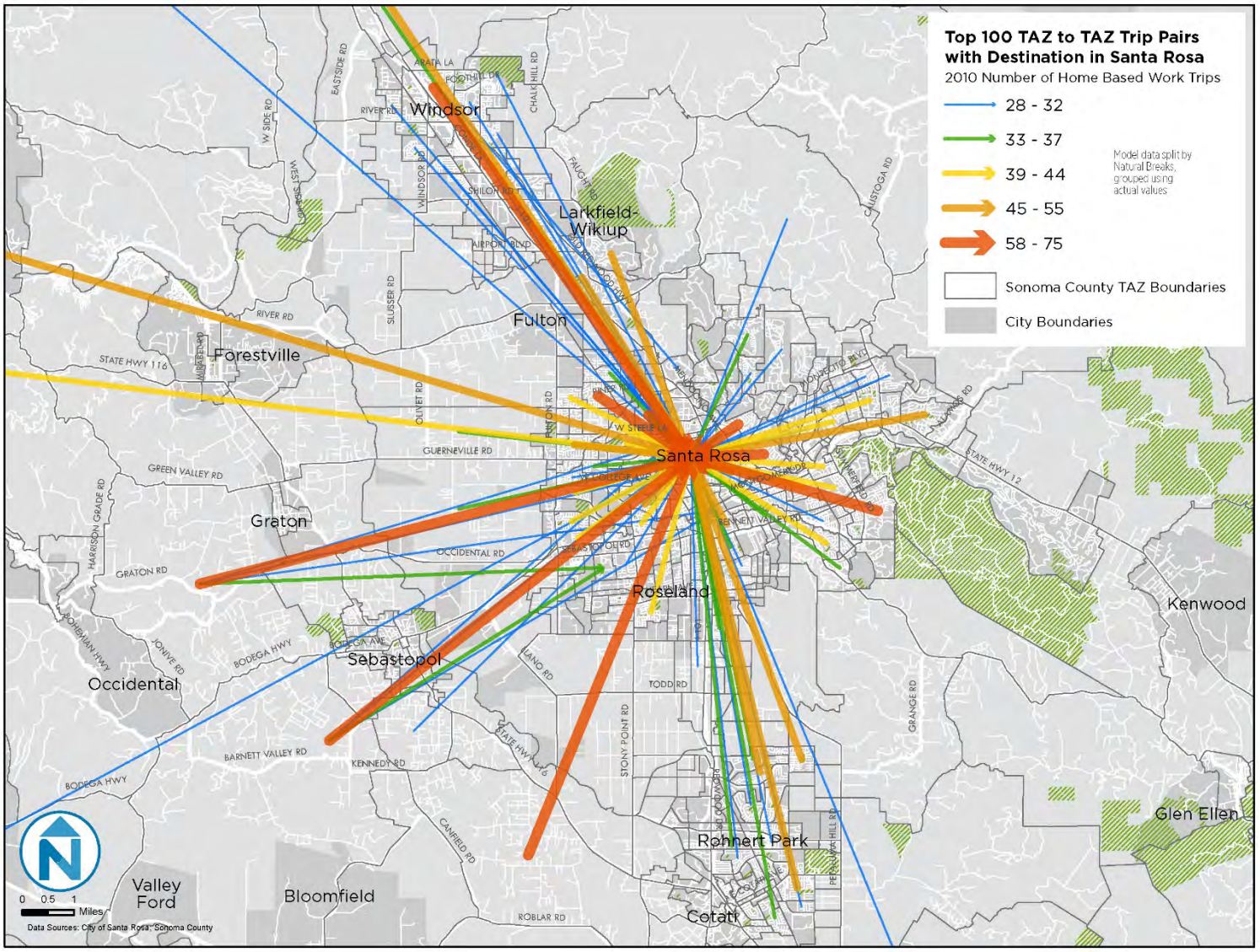


Figure 2-10 Origins and Destinations of Trips Ending in Santa Rosa by TAZ - Home-Based Work Trips

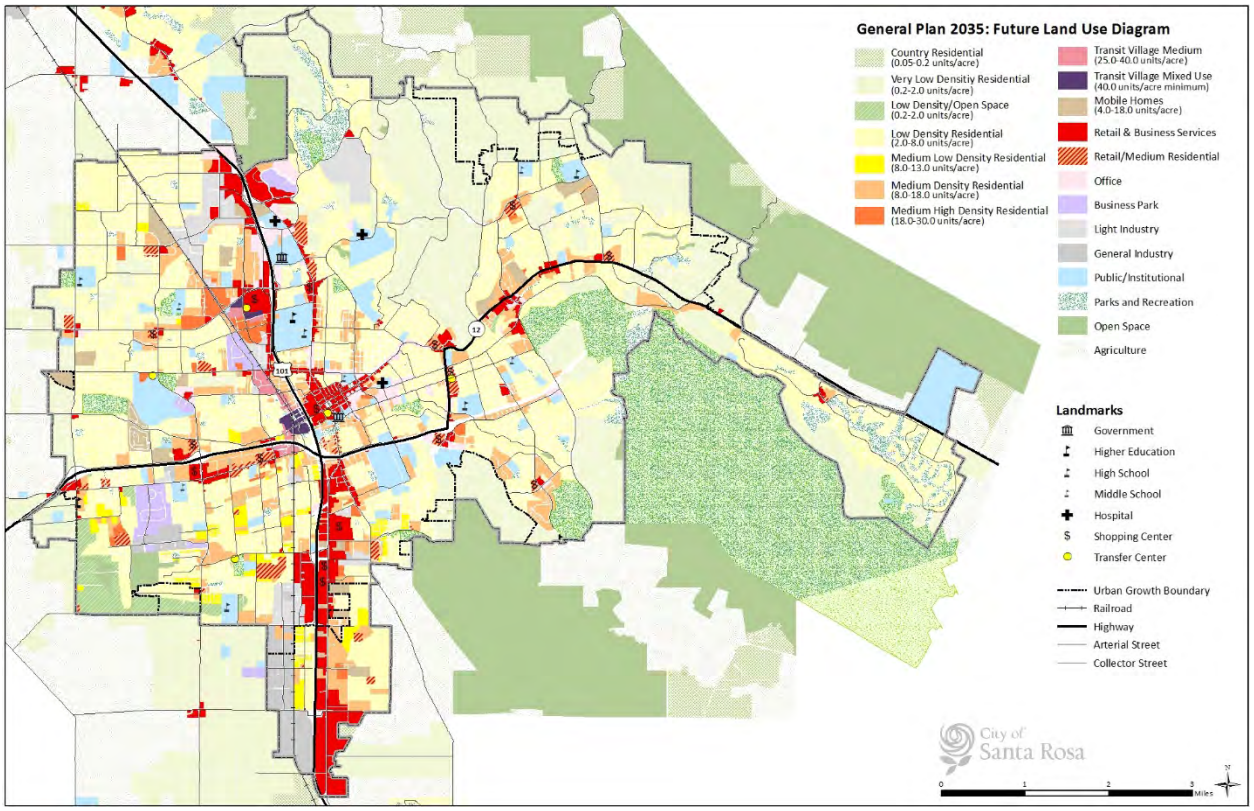


GROWTH AND DEVELOPMENT

To best serve the needs of a community, the design of a transit system should respond to changes in land use and development patterns over time, and long-range plans for transit system development should reflect close coordination with land use planning. The short-term (Phase I) and longer-range (Phase II) service plans described in Chapters 4 and 5 are guided by current development patterns, as well as plans and policies adopted by the City of Santa Rosa to guide future development.

Chief among these is the City's General Plan 2035, which includes a land use diagram that indicates where higher residential densities, new retail and commercial development, and other transit-supportive land uses are planned (Figure 2-11 Santa Rosa General Plan 2035: Future Land UseFigure 2-11).

Figure 2-11 Santa Rosa General Plan 2035: Future Land Use



Source: Santa Rosa General Plan

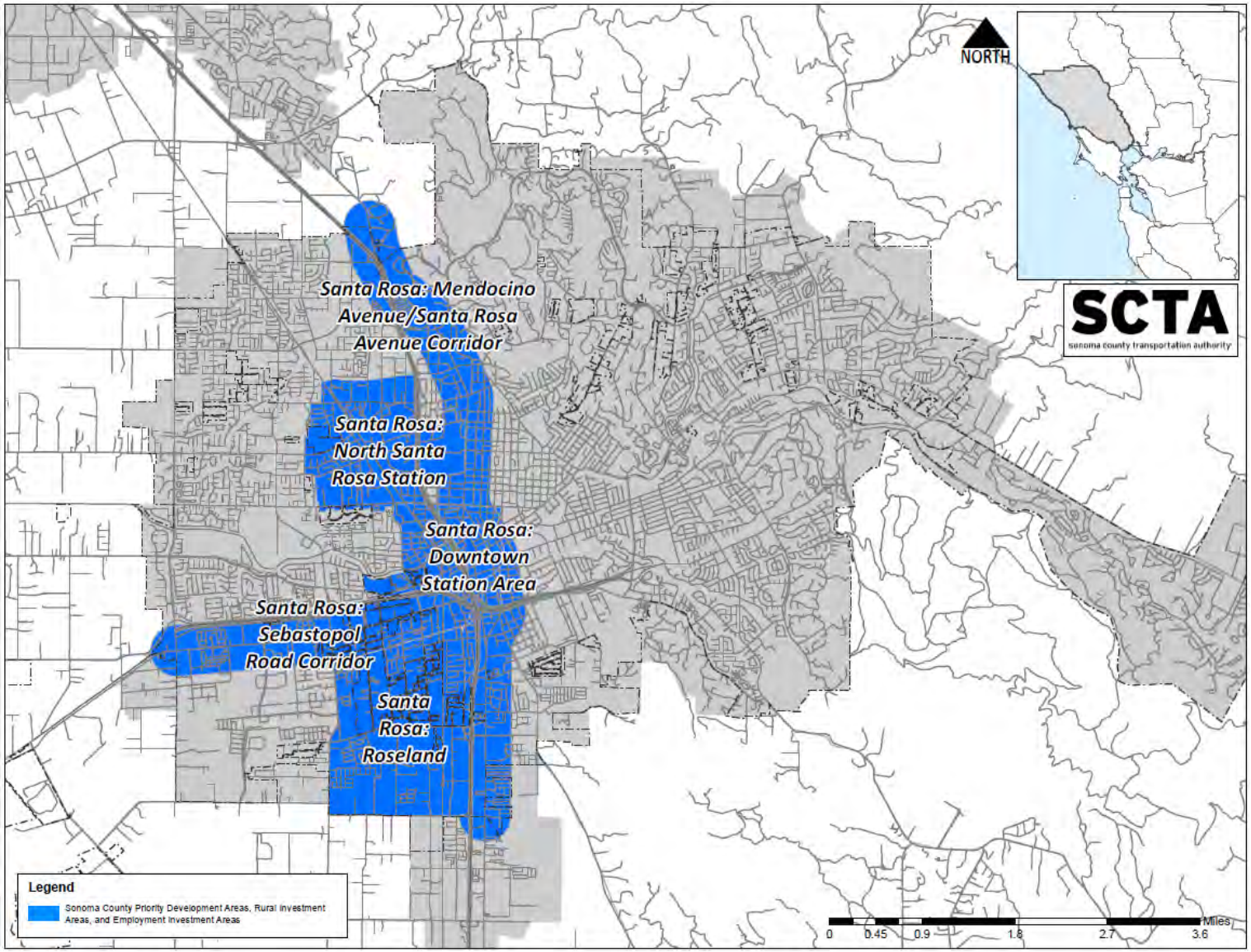
The General Plan supports infill development and growth of commercial development and multi-family housing along arterial corridors such as Santa Rosa Avenue and Sebastopol Road. The plan anticipates an intensification of retail and commercial development, as well as higher density residential development, along the major north-south spine of the Highway 101 and Mendocino Avenue corridors. Areas designated for higher residential densities include the SMART station areas, the West Steele Lane and Guerneville Road area, Sebastopol Road, Hearn Avenue, and the Mission and Highway 12 area. In general, these areas already experience relatively high rates of

transit ridership. With intensification of transit-supportive land uses and infill development, it is anticipated that transit demand will continue to grow.

Over the last several years, the City has designated several "Priority Development Areas" (PDAs) as part of regional efforts to better coordinate land use and transportation planning investments (Figure 2-12). These PDAs were ultimately incorporated into the state-mandated Sustainable Communities Strategy adopted by the Metropolitan Transportation Commission, the regional transportation planning and funding agency for the nine-county San Francisco Bay Area. The five adopted PDAs all have relatively robust levels of transit service and relatively high transit demand. The service plans discussed in Chapters 4 and 5 serve to further improve the quality of transit service in these areas, which are anticipated to have higher rates of population and employment growth in future years.

In the short term, service proposals also reflect current development—that is, development that is approved for construction, under construction, or moving through the entitlement process. In addition to residential and retail infill projects occurring in many areas of the city, the Phase I service proposals discussed in Chapter 4 take into consideration areas with higher levels of recent development pressure at the outer edges of the city, including the northern part of Fulton Road, the neighborhood north of Piner Road, Stony Point Road south of Hearn Avenue, and Dutton Meadow.

Figure 2-12 Designated Priority Development Areas (PDAs) in Santa Rosa



Source: Sonoma County Transportation Authority and City of Santa Rosa

EXISTING SERVICES

CityBus Service

The City of Santa Rosa operates local fixed-route bus service and demand-responsive paratransit service. CityBus had 2.3 million boardings in FY 2013-14, with average weekday ridership of 8,127. In total, there are 17 routes, 15 of which operate seven days a week. All routes operate at midday frequencies of hourly or better, with 10 routes operating at half-hour headways. Most routes begin service between 6:00 a.m. and 7:00 a.m. on weekdays, and finish service between 7:30 p.m. and 8:30 p.m. Saturday service begins somewhat later in the morning on most routes, and ends about an hour earlier. On Sundays, service is further truncated, with most routes starting after 10:00 a.m., and ending before 5:15 p.m.

A map of the CityBus routes is shown in Figure 2-13. The system is oriented around five main transfer centers, with nearly all routes stopping at the main Transit Mall in downtown. Routes typically begin at the Transit Mall, radiate out towards the city's neighborhoods, and then follow a one-way loop as they reach farther-out residential areas.

In general, the current CityBus system is highly coverage-oriented, with a similar approach to route design and similar frequencies throughout the system without a strong reference to varying levels of demand for transit services. The system is characterized by widespread use of one-way loops to provide coverage, and corridors that are served by multiple routes. Figure 2-14 illustrates the prevalence of segments of one-way operations (in orange and green) compared with segments of two-way operation (in red and blue). In several cases (e.g., Northpoint Parkway and Corporate Center Parkway), two-way operation is provided by two different routes traveling in opposite directions along the particular segment.

Figure 2-13 Existing Santa Rosa CityBus System

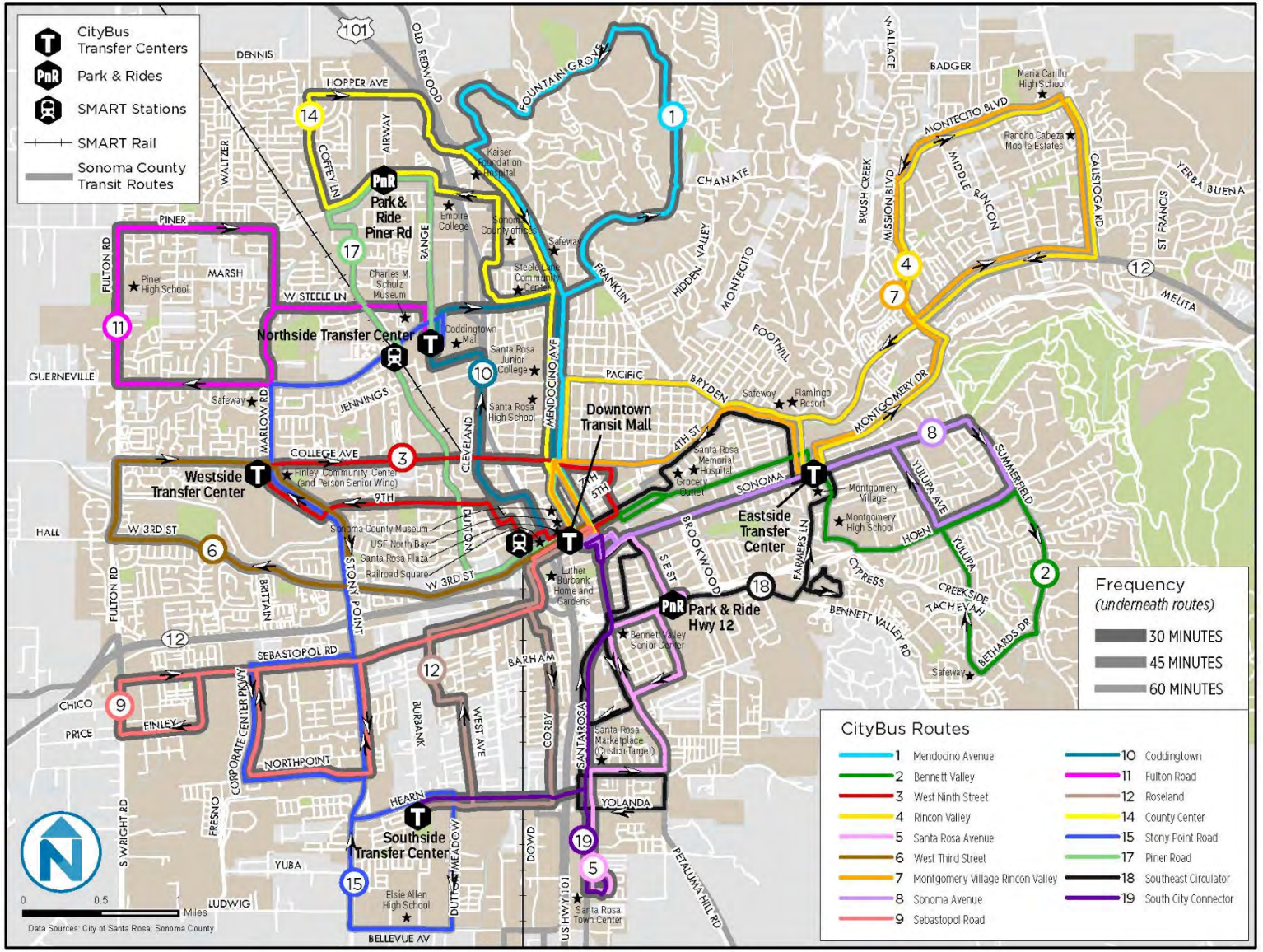
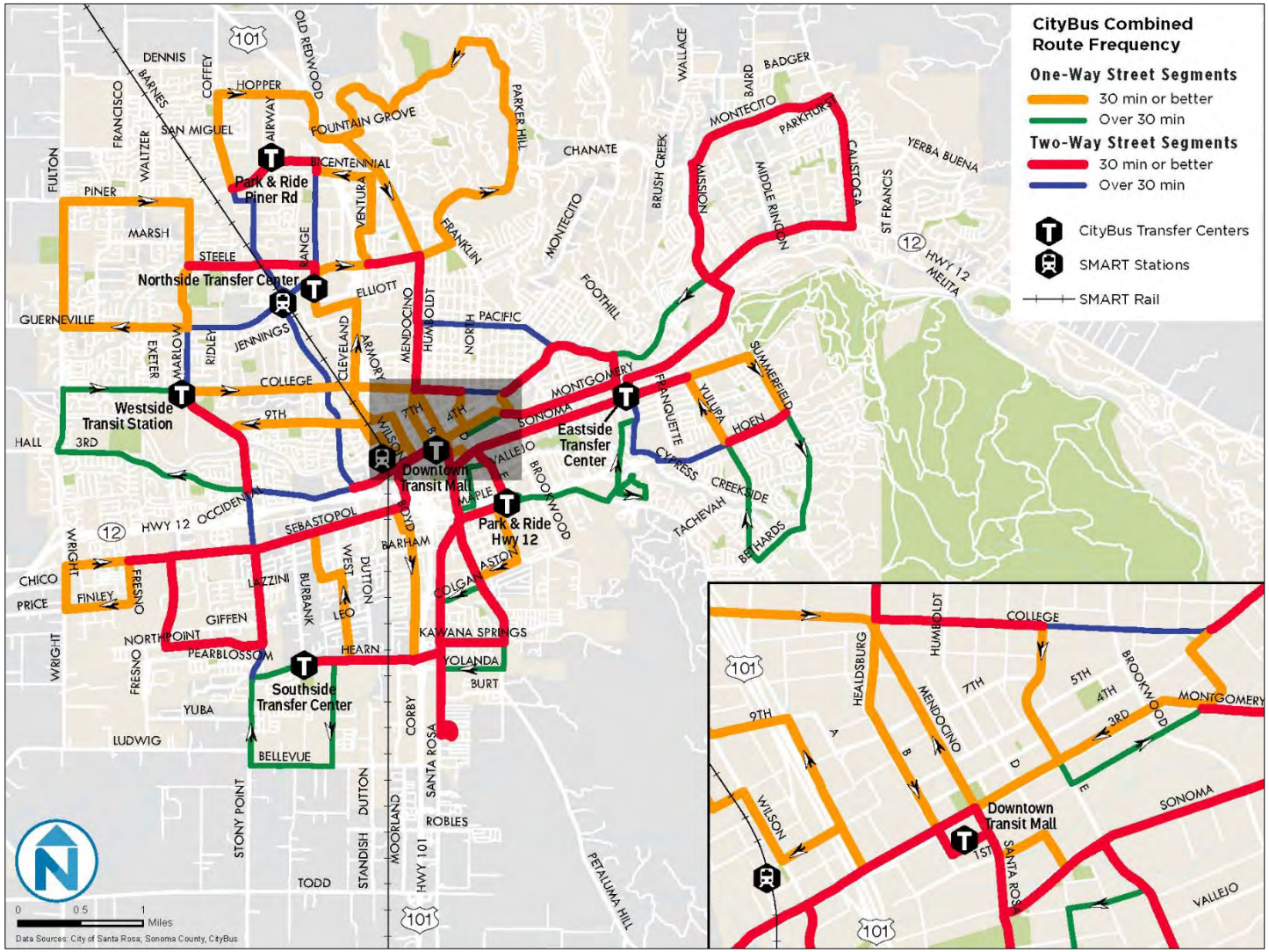


Figure 2-14 Santa Rosa CityBus Segments of One-way/Two-way Operation and Combined Frequency



Regional Transit Service and Connections

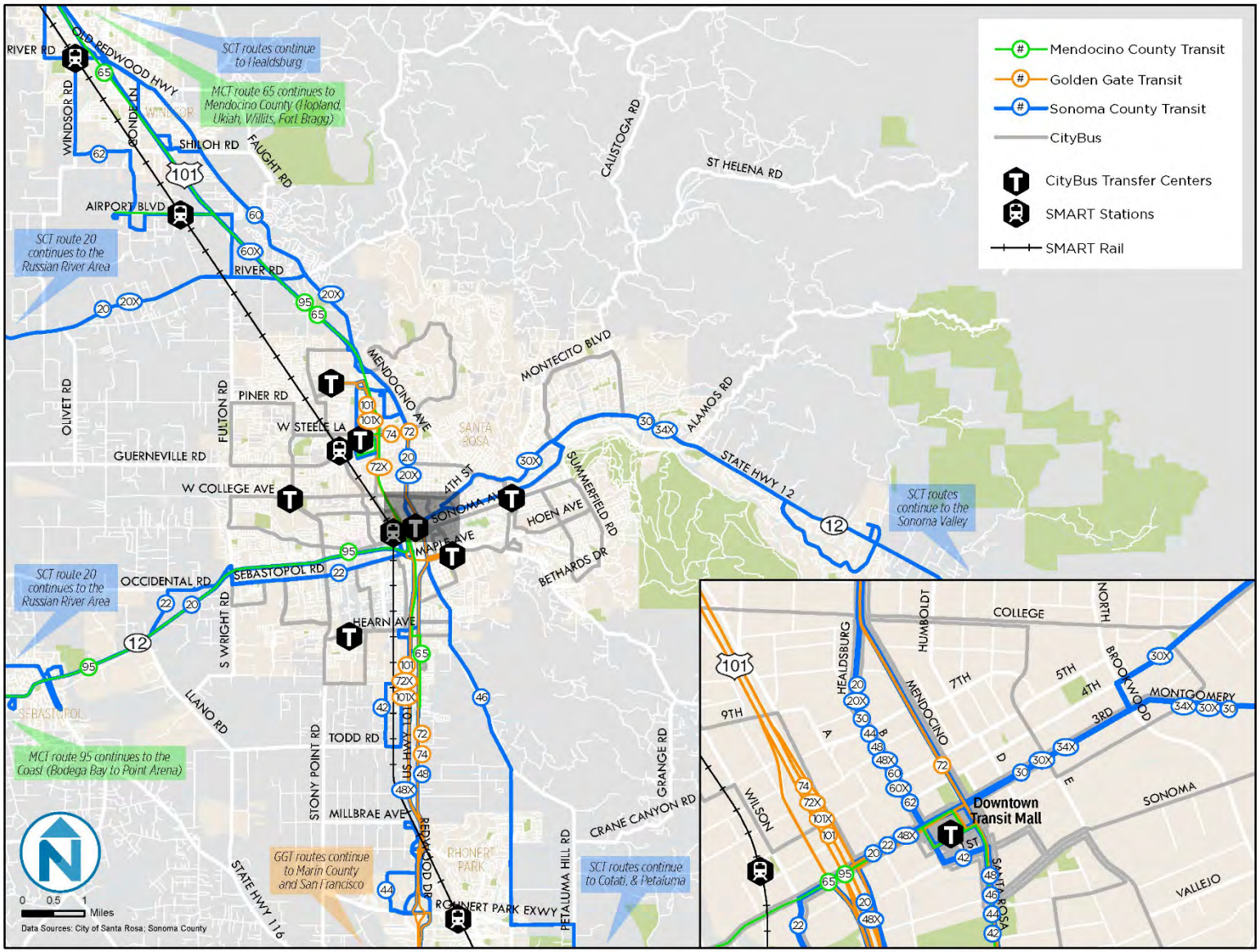
In addition to local CityBus fixed route service, Santa Rosa is served by three regional transit providers, and will soon be served by regional commuter rail. These services are summarized in Figure 2-18. A map of regional services is shown in Figure 2-16. Together, these services provide regional connections to other cities in Sonoma County, Marin County, Mendocino County, and San Francisco. Several Sonoma County Transit routes also add to the local service options on major transit corridors in Santa Rosa, such as Mendocino Avenue and Santa Rosa Avenue. Many riders on these corridors may choose simply to get on the first bus that is headed to their destination, regardless of whether it is operated by CityBus or Sonoma County Transit, especially with the introduction of Sonoma County Transit's free travel for college students and veterans.

Figure 2-15 Regional Transit Service by Agency and Route

Agency	Route	Areas Served
Golden Gate Transit	70/71	Santa Rosa to San Francisco with intermediate stops
	101/101x	Santa Rosa to San Francisco with intermediate stops
Sonoma County Transit	20	Russian River Area, Forestville, Sebastopol, Santa Rosa
	22	Sebastopol, Santa Rosa
	30	Santa Rosa, Sonoma Valley
	42	Santa Rosa, Industry West Business Park
	44	Petaluma JC, SSU, Santa Rosa
	46	Santa Rosa, Sonoma State University
	48	Petaluma, Rohnert Park, Cotati, Santa Rosa
	60	Cloverdale, Healdsburg, Windsor, Santa Rosa
	62	Santa Rosa, County Airport, Windsor
Mendocino Transit Authority	65	Ft. Bragg to Willits, Ukiah and Santa Rosa
	95	South Mendocino Coast to Santa Rosa
Sonoma-Marin Area Rail Transit (SMART) — Initial Operating Segment Late 2016	-	Sonoma County Airport, North Santa Rosa, Downtown Santa Rosa, Rohnert Park, Cotati, Petaluma, Novato, San Rafael, Larkspur (Planned), Windsor (Planned), Healdsburg (Planned), Cloverdale (Planned)

Beyond public transit operators, several other transportation providers operate in Santa Rosa: Airport Express, with a stop location adjacent to the Sonoma County Fairgrounds; Greyhound, with a stop on Dutton Avenue at Sebastopol Road, and Amtrak bus service, with a stop on Edwards Avenue near Cleveland.

Figure 2-16 Regional Transit Service



Transfers

The current CityBus system was designed to allow travel between almost any two points in the CityBus service area with a single transfer. Many trips require a transfer, which is often occurs at a transfer center, and may be timed with the connecting route. Survey data from 2012 suggests that about 54% of CityBus trips involve a single transfer, and an additional 6% involve two transfers.

The main transfer points in the CityBus system are the Transit Mall in downtown Santa Rosa, Northside Transfer Center, Westside Transfer Center, Southside Transfer Center, and Eastside Transfer Center. The figure below displays the available routes at each major transfer point.

Figure 2-17 Major Transfer Points

Stop	CityBus Routes
Eastside Transfer Center (Montgomery Village)	2, 4, 7, 8, 18
Northside Transfer Center (Coddingtown)	10, 11, 15, 17
Southside Transfer Center (Southwest Community Park)	12, 15, 19
Transit Mall	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 17, 18, 19
Westside Transit Station	3, 6, 15

Key transfer patterns in the CityBus system based on analysis of how electronic transfers are used by cash-paying riders include the following:

- Route 9 to Route 14 (and reverse), linking Sebastopol Road to Mendocino Avenue and the northeast quadrant of the City of Santa Rosa
- Route 9 to Route 10, connecting Sebastopol Road to Coddingtown and Mendocino Avenue
- Route 5 to Route 14, providing a link between the Santa Rosa Avenue area and Mendocino Avenue and the northeast quadrant
- Route 10 to Route 11 (and the reverse), linking northeastern neighborhood to Coddingtown and then to downtown Santa Rosa via Mendocino Avenue
- Route 12 to Route 1, connecting Roseland to Mendocino Avenue
- Route 12 t0 Route 9 (and reverse), connecting Roseland neighborhoods to Sebastopol Road service
- Route 5 to Route 10 (and reverse), providing a link from the Santa Rosa Avenue corridor to Coddingtown and Mendocino Avenue

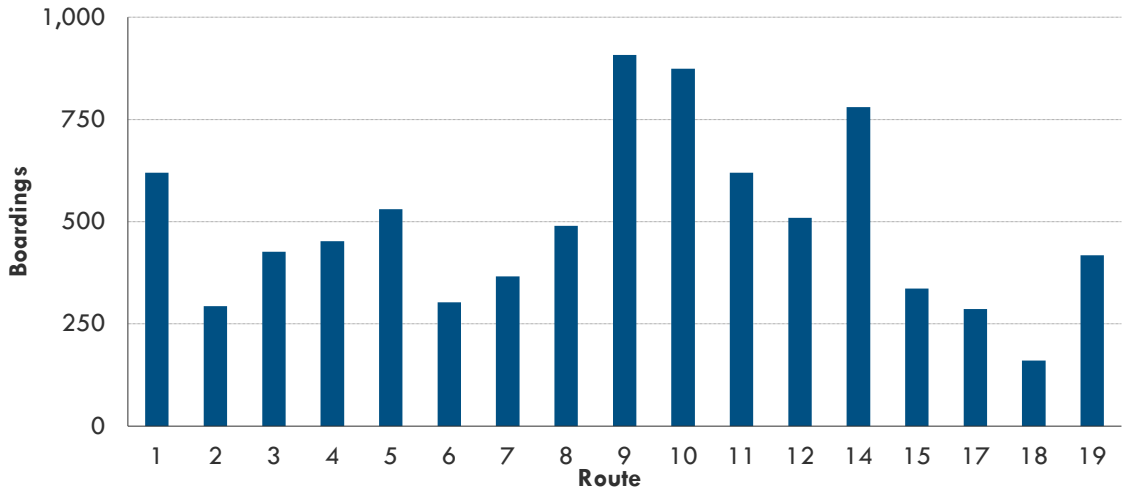
In general, these transfer patterns reinforce the importance of major travel corridors in the city, including Mendocino Avenue, Santa Rosa Avenue, and Sebastopol Road, as well as connections between the city's quadrants.

A relatively small number of riders transfer from Sonoma County Transit and Golden Gate Transit—typically fewer than 5% of CityBus' monthly boardings are riders using transfers from those operators. However, this figure likely understates inter-operator transfer ridership since passholders do not use paper transfers issued by CityBus' partner operators. Transfers from CityBus routes tend to be most common to (1) Sonoma County Transit Route 44/48 serving Mendocino Avenue, Santa Rosa Avenue, Sonoma State University and Petaluma, and (2) Sonoma County Transit Route 60 with service to Windsor, Healdsburg, and Cloverdale. Route-specific data is not available regarding transfers from CityBus to Golden Gate Transit.

Overview of Route-Level Performance

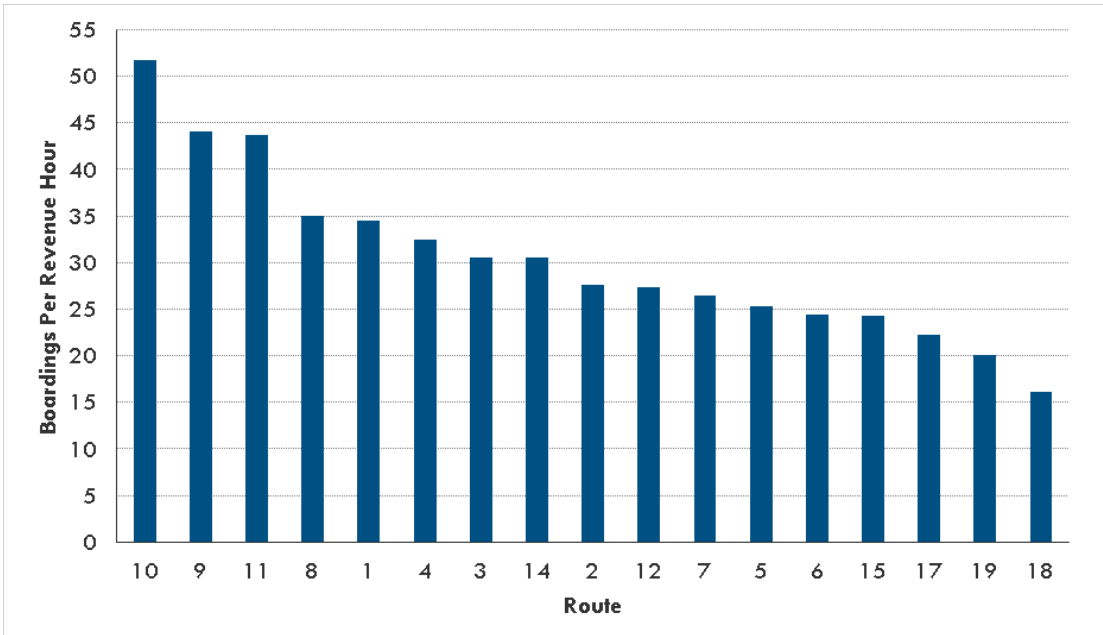
According to recent ridership data, Routes 9 and 10 carry the most passengers on weekdays. Route 18 is the only traditional fixed route that carries fewer than 250 passengers per day (Figure 2-18). On average, seven out of 17 routes carry more than 500 passengers per day on weekdays. (The following figures do not include Route 16 which provides a specialized service to residents of the Oakmont Village Active Adult Community.)

Figure 2-18 Average Weekday Ridership (October 2014)



Route 10, followed by Routes 9 and 11, are the most productive routes (as measured by passenger trips/revenue hour), carrying 54, 52, and 44 passengers per weekday revenue hour, respectively (Figure 2-19). Eight out of 17 routes experience more than 30 boardings per revenue hour on weekdays. Route 18 has the lowest weekday productivity, followed by Routes 19, 17, and 15. At 54 boardings per revenue hour, Route 10's Saturday service is the most successful of all CityBus Routes in terms of passenger productivity. On Saturdays 11 out of 17 routes experience more than 20 boardings per revenue hour. The route with the lowest productivity on Saturdays is Route 17, closely followed by Routes 3, 15, and 18. Routes 9 and 10 have the highest productivity on Sundays, with Route 18 being the least productive.

Figure 2-19 Boardings per Revenue Hour (Weekday)



This route-level overview of current transit system performance is complemented by much more detailed information about ridership patterns conducted for the Line-by-Line Analysis completed as part of this Reimagining CityBus project. The Line-by-Line Analysis include a detailed profile of each route's performance down to the bus stop level, and identified route segments with low ridership where resources could potentially be shifted to higher ridership areas to improve service. The areas where service was reallocated to achieve improvements in frequency and directness, or to provide two-way service, are identified in Chapter 4.

FEEDBACK FROM PUBLIC OUTREACH

The first phase of outreach for the Reimagining CityBus project, conducted between March and May 2015, focused on priorities for changes to the CityBus system and the potential trade-offs involved. Outreach included talking with members of the public at several large community events; outreach to riders at the Transit Mall and Coddingtown transfer center; twenty interviews or meetings with stakeholders; two interactive workshops; and a "Priorities and Trade-offs" survey administered online and in hard copy, in English and Spanish, with over 800 responses received.

Chief among the priorities for improvements to the system cited by riders and non-riders were increased frequency, later service in the evening, and expanded weekend service. For both riders and non-riders, more service that operates in both directions was a priority, and both stakeholders and members of the public expressed an interest in more direct service. Outreach participants also discussed the need to differentiate the services operated by CityBus to meet the levels of demand in various parts of the city, and highlighted the importance of coordination of fare payment and services with Sonoma County Transit, Golden Gate Transit, and SMART.

Survey respondents also prioritized increased frequency, night service, and expanded weekend service, followed by more service operating in both directions, and more direct service. Survey respondents who wrote in a priority most commonly identified free fares or additional discounted fare programs as a need.

Survey respondents were asked about two important trade-offs at the heart of the Reimagining CityBus process. When asked if they would be willing to walk farther from their home to a bus stop if the bus came more often or was faster or more direct, 74% of respondents said they would be willing to walk farther. This figure was slightly lower among older adults (70%).

Respondents who expressed a willingness to walk farther for better transit were then asked how far they would be willing to walk. Of this group, 34% stated that they would only be willing to walk five minutes, 41% stated they would walk up t0 10 minutes, and 26% stated they would be willing to walk up to 15 minutes. Older adults responding to this follow-up question were least likely to be willing to walk for 15 minutes; however, they were more willing to walk for up to 10 minutes than any other age cohort.

When asked if they would be willing to transfer between buses if they could get to their destination more quickly, 89% of respondents said they would be willing. Willingness to transfer varied to a small degree by age, with respondents between the ages of 26 and 64 being most willing to transfer, and older adults and youth being somewhat less willing to transfer.

While some outreach participants requested an expansion of CityBus service to new locations (e.g., the Kaiser Stein facility on Old Redwood Highway, the new Sutter Medical Center at Mark West Springs Road, locations farther south on Santa Rosa Avenue, and Spring Lake Village), most comments were focused on improving the quality and convenience of CityBus service within its current service footprint.

A more detailed summary of public feedback is provided in Appendix B.

SUMMARY OF OPPORTUNITIES

In developing recommendations for CityBus, the challenge was to identify areas that have too little service or more service than is warranted, to identify areas where the complexity of the services and long travel times reduce use of the system, and to highlight areas where investments in more frequent or direct service may benefit existing riders and attract new ones.

Indeed, Santa Rosa's street network is not optimized for transit, with barriers that include rail lines and freeways. This presents a challenge, but one that CityBus has addressed in some areas and that can be further improved in others. Likewise, new infill development is helping to create central neighborhoods with greater population densities that can better support transit. At the same time, hospitals, senior residential facilities and specialized services continue to locate in areas that are especially difficult to serve effectively by transit with limited resources and competing demands. The introduction of SMART service provides an opportunity for CityBus to offer a new intermodal connection, but is not expected to have a significant impact on transit markets for CityBus in the short term. If station-area development intensifies beyond current projections, this planning process will position CityBus to have the appropriate route structures in place to meet new demand, so headways could be augmented in the future.

CityBus has consistently responded to its challenges, but this Reimagining CityBus initiative affords a new look at transit opportunities in Santa Rosa. Based on the data analysis and public input, several key findings and opportunities were identified for CityBus services:

- **Providing quality service.** Stakeholders, political leaders and riders lauded staff for providing a quality service, for being responsive and for covering the community well, given the limited resources available to them. Drivers overwhelmingly offered constructive feedback to make CityBus service better for the customers who use it. Maintaining high levels of public trust and driver participation will be essential for the system to continue to achieve support from all stakeholders in Santa Rosa.

- **A less complex fixed-route system.** Most CityBus routes have circuitous elements, typically in the form of a one-way loop, often a very large one. Routes 1, 18, 11, and 4 are examples where a large one-way loop can make trips for some riders very convenient in one direction, but very inconvenient in the reverse direction. A less confusing route—and one that provides direct service to connect many major destinations—is likely to be the more successful one. In defining Phase I recommendations, a priority for CityBus is greater clarity and simplicity, which would make transit easier to use. In addition, while printed information is comprehensive, it can be difficult to understand, which is a function of the route structure and the difficulty of explaining how the routes are interlined and how transfers can be made.
- **A reallocation of resources and prioritization of key corridors.** CityBus' policy has been to provide coverage-based service (covering as much of Santa Rosa with bus routes, even though many segments operate in one direction only) and relatively equivalent levels of service throughout Santa Rosa with little distinction between higher ridership areas and lower ridership areas. By defining a hierarchy of specific service types to operate (1) along primary high-ridership corridors, (2) on secondary moderate-demand corridors and (3) within lower-demand areas, CityBus can provide a more effective route network. To provide faster and more frequent service in areas with the largest number of riders, CityBus must make some coverage reductions in other areas.
- **Service reliability and on-time performance.** Service reliability is critical to enable riders to make transfers and arrive at their destination on time. While most routes operate on-time during most of the day, some modifications to route structure can be made to improve on-time performance. Building a schedule with adequate running time and layover, eliminating unnecessary stops, and strategic interlining are approaches CityBus can use to improve overall on-time performance.
- **Public information and marketing enhancements.** CityBus has very good printed information and useful schedule and policy information on the City's website. With CityBus services overlaid on Sonoma County Transit routes, a rider needs two different sets of information to make a decision about how to complete a local trip. In some cases, a Sonoma County Transit route will be the better option but the availability of that service and the interplay between CityBus and Sonoma County Transit routes is not transparent in informational materials that are currently available. Emphasis of these Sonoma County Transit lines is beneficial to CityBus as resources are reallocated to reduce duplication.
- **Alternative approaches to providing service.** In some areas, traditional fixed-route service may not be the most cost-effective solution given limited ridership and high per-passenger costs. Longer term, CityBus may be able to serve riders in low-density communities with on-demand services (either traditional dial-a-ride or emerging services that utilize real-time dispatching capabilities), through privately sponsored shuttles, or via contracts with taxi and transportation network companies (TNCs) such as Lyft and Uber.
- **A more effective mobility option in Santa Rosa.** CityBus has an important role to play in supporting Santa Rosa's development as a vibrant, multi-modal community. A more convenient and useful transit system will support increased ridership among current CityBus patrons, and position the system to attract new riders.

3 SERVICE DESIGN APPROACH/ GUIDELINES

Following evaluation of existing CityBus service, its operational context, and public input received during the spring of 2015, a set of Service Design Guidelines was developed to provide a policy framework for service planning. These guidelines propose a new route typology for CityBus, recommend principles of transit service design to be used during the Reimagining CityBus service planning process, and discuss the allocation of service hours between productivity-oriented and coverage-oriented services. They reflect best practices within the transit industry, opportunities identified in the first phase of the project, and the priorities identified by the public. The Service Design Guidelines were adopted by the Santa Rosa City Council on August 5, 2015. This chapter provides an overview of the guidelines and the overall service planning approach employed to develop the short-term and longer-range plans discussed in Chapters 4 and 5. Additional information is provided in Appendix A.

ROUTE TYPES

A transit route typology is a system for classifying services based on their respective roles within the transit network. A route typology provides a framework for differentiating the elements of the transit network and the relationships between different services, as well as the most suitable types of services based on land use and transit demand. A route typology also allows for development of performance standards that relate to specific types of services, their operating context, and performance expectations.

CityBus does not currently use a route typology. Historically, CityBus routes reflect a uniform approach to service design throughout the system, without regard to the relative levels of demand in different parts of the city. For example, in the current system—which is oriented more towards coverage than productivity—even routes operating in the highest-demand, most transit-supportive corridors incorporate elements of coverage-oriented service in the form of large one-way loops and they operate at frequencies comparable to routes with much lower ridership.

Based on evaluation of the elements of the current CityBus system, the operating environment, and opportunities to better tailor services to specific corridors or areas, four “route types” were approved for use in CityBus service planning.

Route Types for Santa Rosa CityBus

Each route type has different characteristics and a different role to play in the overall transit network, as described below:

- **Rapid Bus:** A specialized service for the busiest segments of high-demand corridors that features direct route alignments and limited stops. Other measures can be taken to make rapid bus service faster and more reliable, such as signal priority for transit. Rapid

bus service may operate only on weekdays, when demand is highest. While a dedicated lane for transit is essential for achieving the greatest travel time improvements, rapid bus does not require a dedicated lane, as with true bus rapid transit (BRT) systems.

- **Trunk Routes:** The core routes in the system, serving the busiest corridors with direct, frequent service. Trunk routes typically operate 7 days/week and may provide "local" service along rapid bus corridors.
- **Local Routes:** Routes that serve moderate-demand areas or corridors with service that may run as frequently as trunk routes, or less often. Local routes may incorporate productivity and coverage-oriented segments within the same route, and are designed to connect with transfer hubs, trunk routes, and rapid bus corridors.
- **Circulators/"Flexible" Services:** Services that primarily exist to provide coverage in areas with lower transit demand, and to connect residential neighborhoods to transfer hubs and local/trunk/rapid routes. They may take the form of fixed routes, deviated fixed routes, or other coverage-oriented transit service models.

These four route types can be classified into three "tiers" according to whether they are oriented primarily toward productivity, providing coverage, or a combination of the two. As illustrated in Figure 3-1, Tier One services include rapid bus and trunk routes, which provide a core network of frequent, direct, productivity-oriented service. Tier Two local routes are designed for moderate demand areas, and may serve to meet both coverage and productivity goals. Finally, Tier Three services are oriented primarily toward neighborhood coverage and connectivity with local, trunk, and rapid routes.

Figure 3-1 Proposed Route Types by Tier

Type	Approx. Frequency	Span	Route Directness	Operating Context	Markets
Tier One: Productivity-oriented services					
Rapid Bus	15 min.	Mon.-Fri.	High	Major Arterial	High Demand
Trunk Routes	15-30 min.	7 days	High	Major Arterial	High Demand
Tier Two: Productivity-coverage hybrid services					
Local Routes	30-60 min.	7 days	Medium-High	Minor Arterial	Moderate Demand
Tier Three: Coverage-oriented services					
Circulators/ "Flexible" Services	60 min. or less	Mon.-Fri. to 7 days	Low-Medium	Minor Arterial/ Neighborhood Streets	Neighborhood Coverage

These route types were used as the basis for building the recommended new transit network for Santa Rosa CityBus. Classification of these route types into tiers is helpful in informing discussion of "service allocation"—that is, the proportion of total service hours that is allocated to meet productivity versus coverage goals.

PRINCIPLES OF TRANSIT SERVICE DESIGN

To complement the route types and considerations related to service allocation, several principles of transit service design were approved for use in scenario development and service planning. These principles reflect well-established best practices in transit service planning as well as feedback from CityBus riders and community stakeholders.

These principles are:

- **Frequent Service:** While not all routes can operate with a high degree of frequency due to budget limitations, there is a clear role for a coherent frequent network within the CityBus system that is responsive to demand and key travel patterns within Santa Rosa. Frequency of service is one of the most important factors in supporting transit ridership. Infrequent service lengthens overall travel times, requires users to plan their schedules around the bus's schedule, and may result in long waits if users miss a bus. Frequent service, by contrast, allows users to travel when they want, without relying on or even necessarily checking a schedule, and allows transit to approach the level of convenience a road offers motorists: it is there whenever users need or want it.
- **Direct Alignments:** Service planning should prioritize direct alignments (for Tier One and Tier Two services in particular) to speed transit trips and reduce passenger confusion. While service to out-of-the-way destinations may sometimes require route deviations, routes should generally be as straight as the street pattern allows. Direct paths make for the fastest trip possible, and can also make the route network more "legible" or easy to understand. Routes that primarily travel on a single streets may become so closely associated with that street that they are thought of effectively as part of the street, thereby reducing the uncertainty that can come into play with transit travel.

  Less direct alignments may be appropriate for Tier Three coverage-based services; however, route alignments and the vehicle's path of travel should still be easily understood, and an effort should be made to provide the most direct alignments possible while meeting coverage goals.
- **Bi-Directional (Two-Way) Service:** To the extent possible given budget limitations and coverage needs, long segments of one-way service should be converted to bi-directional service. While one-way couplets or loops may be necessary in some cases, long segments of one-way operation should generally be avoided—particularly large, looping segments where stops in the opposite direction of travel are not located nearby. In these cases, the utility and effectiveness of service is severely limited, as reverse trips may require significant out-of-direction travel and take significantly longer to complete.

  Given budget constraints, conversion of one-way service to bi-directional service may result in reductions in coverage. In the current CityBus system, large one-way loops serve the purpose of providing a high level of coverage, despite a corresponding reduction in the transit system's effectiveness. Loss of coverage from conversion of one-way to bi-directional service should be evaluated against the benefits of providing faster, more convenient, and more understandable service to riders.
- **Strong Anchor Points:** Starting and ending routes at strong anchor points or transfer points promotes high ridership along all route segments. To avoid routes that operate

with low ridership along portions of their alignment—thereby reducing the route's overall productivity and effectiveness—routes should be anchored at both termini with trip generators (e.g., retail centers, schools) that will generate ridership along the length of the route.

- **Spacing Between Routes.** To maximize use of operating resources and avoid duplication of services, routes should in most cases be spaced to avoid multiple routes serving the same corridor. Research has found that most transit users are readily willing to walk up to one-quarter mile to and from bus stops. Each transit route, then, can be understood to serve a corridor roughly one-half mile wide, except where the road network prevents reasonably direct pedestrian access.
- **Connectivity Between Routes**. If routes are to be made relatively direct and frequent, it may not always be possible to provide one-seat rides or direct connections between riders' origins and destinations. This is not a problem for most riders if service is relatively frequent and connections are timed to provide for seamless transfers. While riders typically prefer not to transfer, well-designed connections between routes have the potential to maximize the effectiveness of the entire transit network, and can even reduce overall trip times for passengers.

These principles served as guidelines for the development of recommendations. Their specific application varies in response to the characteristics and constraints of CityBus' operating environment in both the short- and long-term planning horizons.

SERVICE ALLOCATION

One of the central tasks in the service planning process for Reimagining CityBus has been identifying the most appropriate balance of coverage-based and productivity-based transit services for Santa Rosa. This task reflects an inherent tension between services that are coverage-based and those that are productivity-based. Often the expectation of transit operators is that their services simultaneously satisfy competing goals: (1) to provide access to all in the community regardless of a route's ridership potential (coverage-based services), and (2) to maximize ridership and minimize costs (productivity-based services). Each of these goals translates into a different approach to the allocation of operating resources. The "sweet spot" between allocating resources for coverage-based services versus productivity-based services will differ for each community based on the values of the community and the role it wants the transit system to play.

Based on the opportunities identified in the first phase of the Reimagining CityBus project and the feedback received from the public (in terms of priorities for changes to CityBus and the level of willingness to accept key trade-offs such as walking farther to access better bus service), the Service Design Guidelines provided for true productivity-oriented services to be incorporated into the scenarios developed for redesign of the CityBus system. Specifically, the Service Design Guidelines called for productivity and coverage-oriented services to be differentiated within the system according to the proposed route types, and for productivity-oriented services to be incorporated into the Trunk Route and Local Route networks.

In the fall of 2015, service scenarios were developed to illustrate the impact of a greater and lesser allocation of resources to productivity versus coverage-based services. Public feedback on those

scenarios was used to develop a preliminary recommendation and ultimately the final recommendations presented in Chapter 4 and 5 of this plan.

UPDATED SERVICE POLICIES

Like most transit agencies, Santa Rosa CityBus uses formal service policies and standards to guide decision-making about transit services and evaluate service performance. These policies and standards are periodically reviewed and updated, and submitted for adoption by the Santa Rosa City Council as part of regular updates to the Santa Rosa CityBus Short-Range Transit Plan (SRTP).

Several of CityBus' existing service policies and standards require updates as a result of the Reimagining CityBus process and the adoption of new Service Design Guidelines. Changes to CityBus service policies and standards that reflect the Service Design Guidelines and outcomes of the Reimagining CityBus process will be brought forward for adoption by the Santa Rosa City Council as part of the FY 2016-2025 SRTP.

Key policies that must be updated include the Service Availability Policy, which currently states that 95% of dwelling units in areas with a density of 6 or more units/acre should be within ¼ mile of bus stop. This policy is suitable for a more purely coverage-oriented transit system, but does not reflect the service availability goals of a system that balances coverage-based services with productivity-based services. In addition, there is an opportunity to incorporate the adopted route types into standards for evaluating service performance. The benefit of this approach is that the performance of each service type can be evaluated against standards appropriate for that service, rather than creating an expectation that, for example, a circulator service in a low-demand area will meet the same performance standards as a trunk route in a high-demand corridor.

4 SHORT-TERM SERVICE RECOMMENDATION (PHASE I)

The focus of the service planning effort discussed in this chapter is the short term: What can be done to better meet transit demand and address the service design principles discussed in Chapter 3 using existing resources? The recommendation is based on the iterative draft service plan proposals reviewed by consulting and Santa Rosa City staff, and are informed by the extensive data analysis effort and public outreach process conducted during the development of this plan. The emphasis of this chapter is on fixed-route transit services; CityBus' paratransit services are anticipated to remain essentially unchanged.

For planning purposes, the short-term service plan assumes that funding levels will remain close to status quo with only a very slight increase to allow for some additional enhancements that were identified by members of the public. We refer to the short-term service recommendation as Phase I since these services can be implemented with existing vehicles and staffing levels. However, these services may require additional capital investment in infrastructure improvements (new or relocated bus stops, sidewalk improvements, additional bus stop amenities, etc.).

Phase I recommendations provide a framework for future improvements to CityBus services. These future Phase II recommendations, described in Chapter 5, require additional resources to implement, and in some cases, assume new residential or commercial development is in place to support service expansion.

The service planning effort discussed in this chapter responds to several constraints beyond budget limitations. These include limitations of the street network in Santa Rosa for consideration of new routing alternatives, peak-hour congestion in key locations such as Mendocino Avenue and the Highway 101 crossings, and the imperatives of transit service planning, such as ensuring trip cycles use an efficient number of vehicles and provide sufficient recovery for drivers.

As discussed in previous chapters, a central challenge of this effort was finding the appropriate balance of services that support high ridership in high-demand corridors versus services that preserve important neighborhood coverage and connections. The result is a proposed system that maintains much of the overall footprint of service coverage that exists today, with strategic reductions of service in specific areas with low ridership to allow for much higher levels of service in the corridors with the greatest numbers of riders. The recommendation also addresses overall improvement in service quality, consistency and reliability throughout the transit network. This chapter lays out the proposed improvements, identifies the areas where coverage has been reduced to achieve them, and the process by which these service proposals were developed. The chapter also discusses Americans with Disabilities Act (ADA) paratransit implications and implementation considerations.

OUTREACH AND RECOMMENDATION PROCESS

Following adoption of the Service Design Guidelines discussed in Chapter 3, three scenarios for redesign of the CityBus system were developed, including two budget-neutral scenarios and an unconstrained "growth" scenario. Between late September and mid-December 2015, over 40 meetings and events were held to solicit public and stakeholder input on the service scenarios. These included:

- Six public workshops, including participation in Roseland Specific Plan Community Workshop #3
- Five workshops at senior residences
- Nine meetings with interested groups/organizations, including
  - Area Agency on Aging Transportation and Mobility Committee
  - North Bay Organizing Project/Transit Riders United
  - Paratransit Users Group
  - Santa Rosa Chamber of Commerce Transportation Task Force
  - Sonoma County Transportation Authority Transit-Paratransit Coordinating Committee
  - Sonoma County Transportation and Land Use Coalition
- Direct outreach to riders at the Transit Mall, Coddingtown, and SRJC
- A stakeholder Open House
- A Webinar, with a live broadcast and video available on YouTube, which received hundreds of views
- A focus group with Santa Rosa Community Health Centers patrons
- Seven meetings with Santa Rosa City Schools (Assistant Superintendent and school principals)
- Meetings with partner transit operators (Sonoma County Transit, SMART)
- Workshops with CityBus bus operators, operations staff, and customer service staff
- Three meetings with County Supervisors
- A Technical Advisory Committee meeting

Notification of opportunities to participate in the process was provided through bilingual takeaway cards and posters onboard buses, at bus shelters, at senior residences, at all outreach events, and at the CityBus customer service counter; social media postings; the project's email alert (over 400 subscribers); the project website; partner agencies and organizations; and the *Santa Rosa Press Democrat*. Materials were available in English and Spanish, and interpretation for Spanish speakers was available at all public workshops.

In addition to the comments made by attendees at the meetings and events above, over 100 comments were received via email during this phase of the process, and over 100 additional comments were received on surveys administered at the outreach events.

Based on the feedback received, CityBus and consultant staff developed a preliminary recommendation which was presented to the Santa Rosa City Council at a study session on February 2, 2016. This recommendation was further refined based on additional feedback from the City Council, CityBus operators, and others for inclusion in this draft plan.

PHASE 1 SYSTEM DESIGN RECOMMENDATIONS

Route Types and Service Levels

Figure 4-1 illustrates the Phase I proposal, while Figure 4-2 provides details of the proposed changes by route. Route changes center around four key themes:

- **Increased frequency** – CityBus currently operates 17 fixed routes on weekdays and Saturdays and 15 routes on Sundays, with frequencies ranging from 30 to 60 minutes. While not all routes can operate with a high degree of frequency due to budget limitations, there is a clear role for a coherent frequent network that is responsive to demand and key travel patterns. Frequency of service is one of the most important factors in supporting transit ridership.

  The short-term recommendation proposes increasing service frequencies, with Tier One Trunk Routes operating every 15 to 30 minutes all day. Routes 1 and 9, as well as Routes 5 and 19 combined on Santa Rosa Avenue would provide service at 15-minute headways along key arterials. Most local routes—Tier Two services—would operate every 30 minutes, including Routes 2, 3, 4, 5, 6, 10 and 12. Some circulator routes and routes linking lower-density residential neighborhoods (Tier Three) would operate every 60-70 minutes, including Routes 11, 15, and 18. Direct route alignment changes, as well as demand and key travel patterns, support increased frequency.

- **Bi-directional (two-way) service** – Most CityBus routes currently operate as elongated one-way loops with bi-directional service predominately aligned along major regional corridors such as Mendocino Avenue, Sonoma Avenue, and Sebastopol Road. All routes begin and end at the Transit Mall in downtown Santa Rosa, with the exception of Routes 10, 11, and 15, which originate and terminate at the Northside Transfer Center (Coddingtown Mall).[2] In the current system, large one-way loops provide a high level of coverage, despite a corresponding reduction in the transit system's effectiveness.

  While one-way service covers a greater geographic area, the utility and effectiveness of service can be severely limited since reverse trips require significant out-of-direction travel and take significantly longer to complete. When appropriate, routes were adjusted so one-way service was converted to bi-directional service. Figure 4-2 details route alignment adjustments, noting changes in bi-directional service.

- **Direct, simplified service** – Several routes currently meander through employment and residential areas, with some routes providing duplicate service. The Phase I

[2] Route 16, a deviated fixed-route which originates and terminates at the Oakmont Village Central Complex, is operated through a special funding agreement with the Oakmont Village Association and is not included in discussion of the fixed-route system due to its specialized function and dedicated funding.

recommendation prioritizes direct alignments to speed transit trips and reduce passenger confusion.

When possible, routes were redesigned to provide direct service to the strong anchor points (e.g. retail centers, schools). This includes continuing on main streets rather than deviating to adjacent streets. The route alignment changes provide more direct, simplified service, thus offering a more intuitive system to use. Figure 4-1 illustrates the proposed route alignment changes that provide more direct service.

- **Connectivity –** In addition to local CityBus fixed route service, Santa Rosa is served by three regional transit providers (Golden Gate Transit, Sonoma County Transit, and Mendocino Transit Authority), and will soon be served by regional commuter rail (SMART). Together, these services provide regional connections to other cities in Sonoma County, Marin County, Mendocino County, and San Francisco. Route change recommendations take connectivity to other systems into account and seek to avoid duplication of existing services. For example, Sonoma County Transit routes operate on several corridors currently served by CityBus. In some areas of the city, resources on CityBus routes that duplicate Sonoma County Transit services were reallocated to other corridors where higher levels of transit service were warranted. Sonoma County Transit also serves a few destinations that are not currently within the CityBus service area but are important destinations for riders (e.g., Kaiser's Stein campus on Old Redwood Highway, the new Sutter Medical Center, Santa Rosa Avenue south of Court Street). Service changes that specifically address connections to Santa Rosa's SMART stations are discussed later in this chapter.

  Connectivity between routes is critical within the CityBus system as well. While riders typically prefer not to transfer, well-designed connections between routes can maximize the effectiveness of the entire transit network and even reduce overall trip times for passengers. Connectivity is a key consideration in this short-term recommendation. Important interlines and timed transfers that have been incorporated into the Phase I service plan are discussed later in this chapter.

Figure 4-1 Phase I - Short-Term Service Recommendation Map

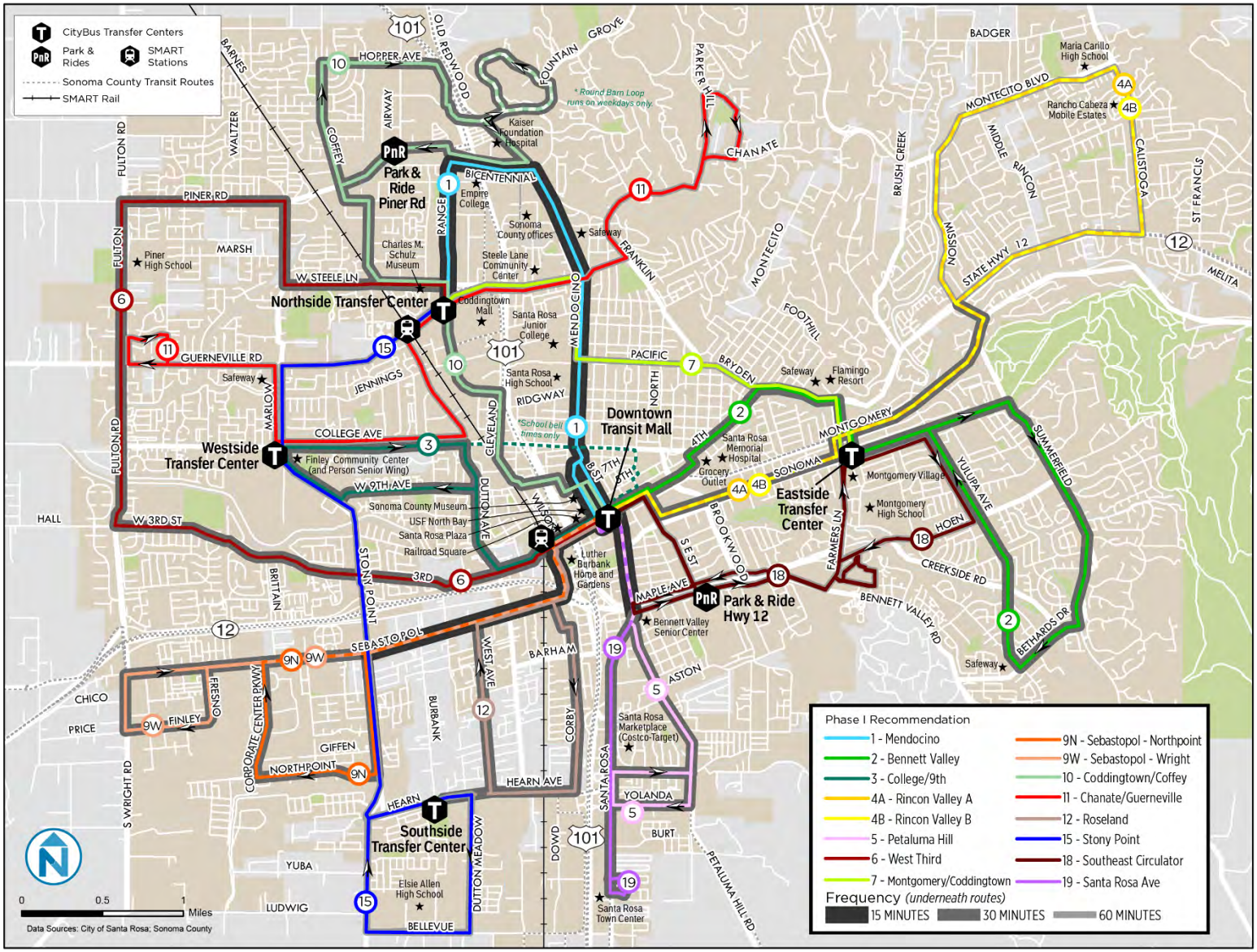


Figure 4-2 Short-Term Service Recommendation – Descriptions by Route

Route		Proposed Name	Current Frequency	Proposed Frequency	Current Route Description	Proposed Route Changes	Potential Impacts
1	Mendocino Avenue	Mendocino	30	15	▪ Serves heavily traveled Mendocino Ave, the primary north-south arterial east of Hwy 101 ▪ Operates bi-directionally along Mendocino Avenue to Steele Lane ▪ Serves city's northernmost neighborhoods via large one-way loop	▪ Route alignment change. Direct, frequent, and bidirectional service on Mendocino from downtown Transit Mall to Bicentennial and Coddingtown (which is not currently served by Route 1) ▪ Eliminate one-way loop section on Chanate, Parker Hill, and Fountain Grove (partially served by new routes 10 and 11	▪ Removal of low-ridership segment along Chanate, Parker Hill, and Fountaingrove (to be partially served by new routes 10 and 11)
2	Bennett Valley	No change	60	30	▪ Serves downtown Transit Mall to the Bennett Valley Shopping Center ▪ Operates bi-directionally along Montgomery Drive and Hoen Avenue ▪ Serves southeast corner of city through a large one-way loop	▪ Route alignment change. More frequent service to Bennett Valley with service to Montgomery Village via 4th Street ▪ Merge Route 8 with Route 2, so Route 2 turns earlier on Sonoma Avenue and does not operate on Hoen between Franquette and Yulupa. This segment will be served by Route 18. Southeast corner still operated as one-way loop.	▪ Reduction in coverage on Route 2 (but Hoen between Franquette and Yulupa. Served by Route 18).
3	West Ninth	College/9th	30	No change (30)	▪ Serves downtown Transit Mall to Westside Transfer Station ▪ Operates as a one-way loop through downtown and western central portions of the city, serving a number of key employment and recreational sites	▪ Route alignment change. Truncated version serving high ridership areas of North Dutton, West 9th, and West College Ave ▪ Operate along College Ave to Brookwood Ave during school bell times only	

Route		Proposed Name	Current Frequency	Proposed Frequency	Current Route Description	Proposed Route Changes	Potential Impacts
4	Rincon Valley	Split into two new routes: ▪ Rincon Valley A ▪ Rincon Valley B	60	60 in total; 30 between Transit Mall and Mission via Sonoma Ave	▪ Operates along Mendocino Ave to Pacific before serving the northeast portion of Santa Rosa in a figure-eight loop ▪ Serves a number of junior college and high school students, and provides access to primarily residential areas	▪ Split current route into two routes with new alignments. More frequent service (30 minutes) between downtown Transit Mall and Mission via Sonoma Ave ▪ Clockwise and counterclockwise loop in Rincon Valley ▪ Changes support consolidation of current Routes 4 and 7 between downtown and Mission service	▪ No service at Village Parkway stop on Highway 12 ▪ Current Route 4 riders traveling to SRJC will need to transfer (timed transfer planned)
5	Santa Rosa Avenue	Petaluma Hill	30	No change (30)	▪ Operates from downtown Transit Mall to Santa Rosa Town Center shopping complex ▪ Serves communities in southeast quadrant of the city directly east of Highway 101	▪ Route alignment change. Direct service via Santa Rosa Ave and Petaluma Hill Road ▪ Schedule staggered with Route 19 to provide 15 minute service to Santa Rosa Plaza	▪ Less service to Fairgrounds, Highway 12 Park and Ride
6	West Third Street	West Third	45 (40 off-peak)	30	▪ Serves Downtown Transit Mall to Fulton Road at far western end of Santa Rosa ▪ Operates in one-way loop	▪ Route alignment change. New bi-directional service connecting riders to both downtown Transit Mall and Coddingtown ▪ Route 11 merged with Route 6	▪ Lost coverage on West College Ave.
7	Montgomery Village and Rincon Valley	Montgomery/ Coddingtown	60	No change (60)	▪ Operates bi-directionally from downtown Transit Mall to Montecito Shopping Center in northeast Santa Rosa ▪ Serves Rincon Valley in opposite direction of Route 4; travels inbound via 4th Street and College Avenue	▪ Route alignment change. New hourly crosstown route from Montgomery Village to Coddingtown via Pacific and SRJC ▪ Rincon Valley to be served by new Route 4A/4B	

Route		Proposed Name	Current Frequency	Proposed Frequency	Current Route Description	Proposed Route Changes	Potential Impacts
8	Sonoma Avenue	-	30	-	▪ Operates east from Transit Mall to Eastside Transfer Center and Howarth Memorial Park ▪ Serves residential community around Slater Middle School ▪ Operates bi-directionally, primarily along Sonoma Avenue	▪ Route 8 merged with Route 2 and Route 4A/4B	Service in this area to be provided by Routes 2 and 4A/4B.
9	Sebastopol Road	Split into two new routes: ▪ Sebastopol - Northpoint ▪ Sebastopol - Wright	30	15 minute service on Sebastopol Road from Olive to Stony Point; 30 otherwise	▪ Operates from Transit Mall along Sebastopol Road serving southwest quadrant of Santa Rosa	▪ Split current route into two routes to provide more direct service to southwest Santa Rosa ▪ Provide 15 minute service on Sebastopol Road from Olive to Stony Point	
10	Coddingtown	Coddingtown/ Coffey	30 (20 minutes from 2:40-5:10 p.m.)	No change (30)	▪ Operates as a one-way loop between Northside Transfer Center and Transit Mall with continuing service to northwestern Santa Rosa as Route 11	▪ Route alignment change. 30 minute two-way service connecting Transit Mall to Coddingtown via Cleveland/Range, continuing to Coffey, Hopper, and Round Barn.	
11	Fulton Road	Chanate/ Guerneville	30	70	▪ Operates from Northside Transfer Center bi-directionally along W. Steele Lane and as a large one-way loop covering predominantly residential neighborhoods in northwest portion of the city. ▪ Route 11 operates as continuing service from Route 10 ▪ In a few limited cases, service continues on as Route 11 or 15	▪ Route alignment change. Connects northwest and northeast quadrants of the city, with connections to the Westside and Northside Transfer Centers. ▪ Route 11 covers the Chanate Road segment previously served by Route 1.	

Route		Proposed Name	Current Frequency	Proposed Frequency	Current Route Description	Proposed Route Changes	Potential Impacts
12	Roseland	No change	30	No change (30)	▪ Operates as a one-way loop from the downtown Transit Mall to Southwest Community Park located on Hearn Avenue	▪ Route alignment change. Route continues on West Street and does not deviate onto Delport Ave and McMinn Ave.	
14	County Center	-	30	-	▪ Operates as an elongated one-way loop (with bi-directional service along Mendocino Avenue) from downtown Transit Mall to Hopper Avenue and Airway Drive in northwestern Santa Rosa	▪ Route 14 merged into Route 1 and 10	No direct service through County Administration center-service in this area is provided by Sonoma County Transit
15	Stony Point Road	Stony Point	60	No change	▪ Operates as a north-south bi-directional service with two one-way loops at its southernmost extent. ▪ Route provides service to wide array of employment sites, parks, schools, and transfer points across western half of city ▪ Serves both the Westside and Southwest Transfer Centers, in addition to the Northside Transfer Center. Does not travel downtown.	▪ Route alignment change. Route no longer runs on Corporate Center Parkway and Northpoint Parkways (covered by Route 9N), but continues on Stony Point to Hearn.	
17	Piner Road	-	60	-	▪ Operates bi-directional service between downtown Transit Mall and Northside Transfer Center at Coddingtown Mall ▪ Provides service across core neighborhoods of the city's northwest quadrant	▪ Route 17 merged into Routes 1, 3,10, and 11	

Route		Proposed Name	Current Frequency	Proposed Frequency	Current Route Description	Proposed Route Changes	Potential Impacts
18	Southeast Circulator	No change	60	No change (60)	▪ Serves Santa Rosa Avenue corridor with multiple deviations, then continues as a circuitous one-way loop around the area southeast and east of Downtown	▪ Route alignment change. Route 18 connects Downtown Transit Mall with Eastside Transfer Center with multiple deviations. ▪ Route 18 no longer runs on streets just south of Highway 12. This area is still served by Routes 5 and 19. ▪ Route 18 no longer runs just north of Montgomery Drive. This alignment is served by Route 2. ▪ Route 18 runs on Sonoma, Yulupa, and Hoen, an alignment previously served by Route 2.	
19	South City Connector	Santa Rosa Ave	30	No change	▪ Operates from downtown Transit Mall along Santa Rosa Avenue corridor and west of Highway 101 to the Southside Transfer Center.	▪ Route alignment change. Route runs on Santa Rosa Avenue corridor to Santa Rosa Town Center with no deviation to Southside Transfer Center.	

Figure 4-3 illustrates the resource requirements to support the Phase I service recommendation. In total, 23 vehicles are required to serve all the routes at the recommended frequency levels on weekdays.

Figure 4-3 Resource Requirements (Weekday Service)

Route		Roundtrip Miles	Running Time	Frequency	Vehicles
1	Mendocino	7.7	40	15	3
2	Bennett Valley	9.4	55	30	2
3	College/9th	5.6	25	30	1
4A	Rincon Valley A	11.1	55	60 (30)	1
4B	Rincon Valley B	11.1	55	60 (30)	1
5	Petaluma Hill	4.8	25	30	1
6	West Third	16.1	70	30	2.5
7	Montgomery/Coddingtown	7.3	55	60	1
9N	Sebastopol-Northpoint	7	40	30 (15)	1.5
9W	Sebastopol-Wright	7.8	40	30 (15)	1.5
10	Coddingtown/Coffey	12	70	30	2.5
11	Chanate/Guerneville	13.6	65	70	1
12	Roseland	5.9	25	30	1
15	Stony Point	11.7	55	60	1
18	Southeast Circulator	6.8	55	60	1
19	Santa Rosa Ave	5	25	30	1

It is anticipated that an additional vehicle will be required to operate school “tripper” service to Piner High School on weekday afternoons. That vehicle may also be used to provide supplemental services along Route 1 during peak service hours to avoid vehicle overloads.

Span of Service

While final schedules will not be developed until the proposed plan is approved by City Council, draft schedules have been developed as part of this phase of the planning process. It is assumed that given current resource limitations weekday, Saturday, and Sunday spans of service will mirror those of current service, with most routes operating between roughly 6:00 a.m.-8:00 p.m. on weekdays, 7:30 a.m.-7:30 p.m. on Saturdays, and 10:00 a.m.-5:00 p.m. on Sundays. Circulator Routes 11 and 18 are expected to have somewhat shorter spans of service on weekdays than other routes, operating until roughly 5:00 p.m.

Interlines

Interlining routes, or connecting one route to another, is a technique that can be used to provide connections that support major travel patterns, or to maintain on-time performance and an efficient system (e.g., by connecting a route that is low on recovery time with one that has extra recovery time). A few interlines are proposed in the Phase I service plan, though final interlining configurations will be determined during full scheduling of the new system. Proposed interlines include the following:

- **Route 1-Route 9N/9W interline:** This interline would provide a one-seat ride connecting Mendocino Avenue and Sebastopol Road. As discussed above, this is a prominent travel pattern in the CityBus system based on analysis of transfer use. In addition, this interline enables riders traveling to and from the Downtown Santa Rosa SMART station to have a one-seat ride between the station and major destinations on Mendocino Avenue.
- **Route 5-Route 12 interline:** This interline has both connectivity and operational benefits. Route 12 is short on recovery time for drivers, and Route 5 has ample recovery. Connecting these two routes provides both an on-time performance and efficiency benefit. Interlining Route 5 and Route 12 also enables Roseland residents to have a one-seat ride to the Santa Rosa Marketplace area, replacing the connection between Roseland and Santa Rosa Avenue formerly provided by Route 19.
- **Route 6-Route 10 interline:** This proposed interline connects two routes that would have inefficient vehicle requirements on their own (2.5 vehicles each), or in combination, with other routes requiring a whole number of vehicles to achieve the desired frequencies.

Coordinated Transfers Between CityBus Routes

Part of the service planning process for Phase I has included identifying key transfers that could be coordinated to make travel more seamless for riders. While schedules will be finalized following adoption of the plan, draft schedules have been prepared to model coordinated transfers for such trips as a connection between the new Route 11 and new Route 6 to facilitate access to Piner High School at the morning bell time, and Route 4A/4B to connect with Route 7 at Montgomery Village for travel to the SRJC and Coddingtown.

Schedule Coordination with School Bell Times

Given the large number of high school and middle school students who use CityBus to get to and from school, school bell times are a key factor driving bus schedules. During development of draft schedules for Phase I services, aligning trips with school bell times to the greatest extent possible has been a focus. As schedules are finalized, bell time coordination will remain a significant factor.

Weekend Service

Weekend service is expected to follow the current pattern, with routes generally operating at half their weekday frequency on weekends. Proposed weekend service frequencies are illustrated in Figure 4-4. It is anticipated that rather than having Route 4A and 4B operating at two-hour

frequencies on weekends, only one variant of this Route (4A) would instead operate at an hourly frequency. Given limited ridership on Northpoint and Corporate Center Parkways on weekends, it is proposed that only Route 9W operate on Sebastopol Road, at a 30 minute frequency. Due to low ridership on Round Barn Boulevard on Saturday and Sunday, it is proposed that Route 10 operate without the Round Barn deviation on weekends (Route 10W). Under this proposal, Routes 7 and 11 would not operate on weekends, while Route 15 would have Sunday service for the first time, and the current gap in weekend service on Route 18 would be filled in.

Figure 4-4 Proposed Weekend Service Frequencies

Route		Weekday Frequency	Proposed Weekend Frequency
1	Mendocino	15	30
2	Bennett Valley	30	60
3	College/9th	30	60
4A	Rincon Valley A	60 (30)	60
4B	Rincon Valley B	60 (30)	-
5	Petaluma Hill	30	60
6	West Third	30	60
7	Montgomery/Coddingtown	60	-
9N	Sebastopol-Northpoint	30 (15)	-
9W	Sebastopol-Wright	30 (15)	30
10	Coddingtown/Coffey	30	60
10W	Coddingtown/Coffey (no Round Barn)	-	60
11	Chanate/Guerneville	70	-
12	Roseland	30	60
15	Stony Point	60	60
18	Southeast Circulator	60	60
19	Santa Rosa Ave	30	60

Integration with SMART Service

The proposed Phase I plan includes several elements intended to integrate SMART rail service into the CityBus transit network:

Santa Rosa Downtown Station

- Four routes connecting the station to downtown Santa Rosa via Third Street. All four routes operate with bi-directional service, providing combined frequencies of 15 minutes or less in each direction.

- An interline between Route 9N/9W—which passes the station via Railroad and Third Streets—and Route 1, providing a one-seat ride connecting the Downtown Station to the Mendocino Avenue corridor, including major employers and destinations such as SRJC, the Sonoma County Administration Center, and Kaiser Medical Center.

Santa Rosa North Station

- Improved connections and frequency at the Northside Transfer Center, which is a short walk from the SMART station. This includes service every 15 minutes serving the Mendocino Avenue corridor from Bicentennial to downtown Santa Rosa.
- Two routes serving the station directly, on Guerneville Road. While both of these routes are circulators operating at 60-minute frequencies, they provide connections to several destinations and neighborhoods in northern Santa Rosa.

In addition, CityBus staff are working to support efforts by employers to initiate shuttle service connecting the Santa Rosa North station to employment sites, as well as working with other City staff to evaluate options for a downtown shuttle service connecting with the Santa Rosa Downtown station.

Areas of Reduced Coverage

As discussed above, the proposed Phase I changes reflect more direct, simplified, and bi-directional service, in addition to proposed increased frequency on several corridors that warrant it. It is unavoidable that achieving these improvements within the current budget requires reduced geographic coverage in some areas. However, despite the fact that services have been simplified and some resources have been reallocated to the highest ridership corridors, the vast majority of areas that are currently served by CityBus will retain service under this plan.

Figure 4-5 shows route segments of current CityBus service that are no longer served under the short-term recommendation.

While there is some reduction in geographic coverage, nearly all of the segments eliminated are within a half-mile of proposed routes, as shown on the map. In some cases, coverage is still maintained by Sonoma County Transit service. It should also be noted that some existing route segments along which buses would no longer operate in the recommended Phase I service scenario are currently only served in one direction and with very limited service, or are within a very short walk of parallel route.

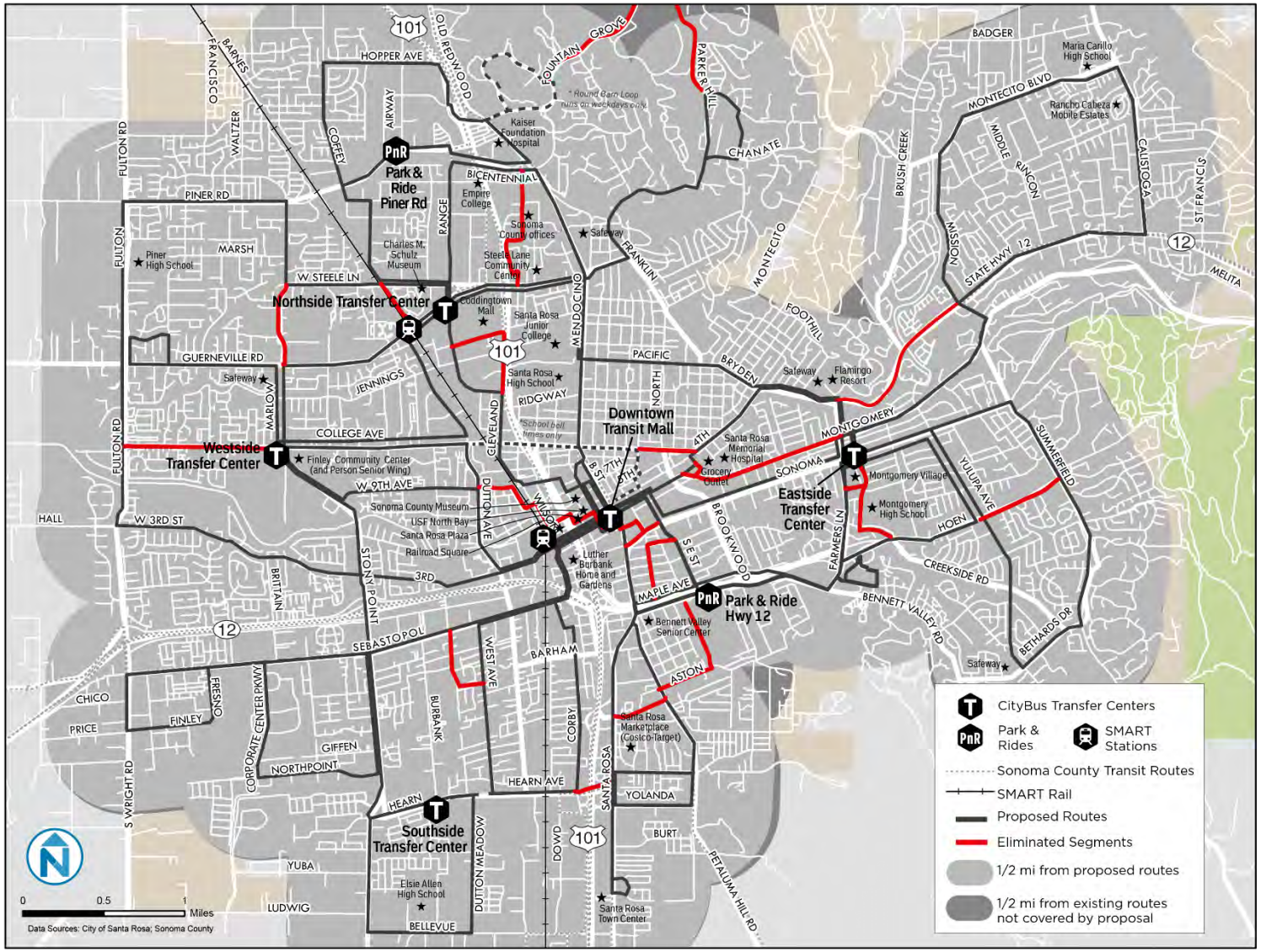
The most noteworthy segments where service would shift to another street include:

- Portions of Fountaingrove Parkway and Parker Hill Road: Ridership on this segment is quite low. Routes 10 and 11 will continue to provide some access to this area, and CityBus staff are currently investigating the potential for some level of service (e.g., commute period service) to continue to be provided through a partnership with area employers.
- Montgomery Drive between 4th Street and Farmers Lane: Two-way, 30-minute service would be provided one block away on Sonoma Avenue. This segment of Montgomery Drive is also served by Sonoma County Transit Route 30. This change avoids duplicative services operating on both Sonoma Avenue and Montgomery Drive, and acknowledges the higher ridership on Sonoma Avenue, despite the fact that Memorial Hospital is located on Montgomery Drive.

- Highway 12 between Mission and Farmers Lane: There is only one bus stop on this stretch of Highway 12, which currently has hourly bus service in just one direction. Ridership at this bus stop is low. Shifting this service over to Montgomery Drive enables CityBus to provide two-way, 30-minute service on a corridor with higher ridership demand.
- Hoen Avenue between Yulupa and Summerfield: Ridership is modest on this segment, and riders have no more than a ¼ mile (approximately 5 minute) walk to service under the recommended plan. Removing this segment helps provide for an increase in frequency on Route 2 from 60 minutes to 30 minutes.
- Hahman Drive between Sonoma Avenue and Hoen Avenue: Despite the proximity to Montgomery High School, ridership on this segment is very modest, with most students traveling to and from the area from the Eastside Transfer Center on Sonoma Avenue.
- Hendley and Aston Streets: While ridership is fairly robust on these route segments, they are very close to Petaluma Hill Road with good pedestrian connections. Keeping Route 5 on the main arterial provides for faster and more direct service to downtown Santa Rosa and the Santa Rosa Marketplace area.
- Colgan Avenue between Santa Rosa Avenue and Petaluma Hill Road: There is one bus stop on Colgan Avenue, with very low ridership. This stop is in close proximity to Santa Rosa Avenue service. However, as noted below, the existing pedestrian connection between the bus stop at the Vintage Park senior residence and Santa Rosa Avenue will need to be improved to provide access to CityBus service.
- West College Avenue between Marlow and Fulton Road: This is very low ridership segment of Route 6.
- Marlow between West Steele and Guerneville Road: Ridership on this segment is concentrated at Marlow and Guerneville, which will retain service on two routes under this proposal.
- County Center Drive and Ventura Avenue: While this segment has fairly robust ridership, keeping service on Steele Lane, Mendocino Avenue, and Bicentennial Road enables CityBus to provide faster, more direct, and more frequent trips to and from this area. Riders traveling to the interior of the County Administration Center will have access to 15 minute service, all day and in each direction, on Mendocino and Bicentennial, as well as direct service on Sonoma County Transit Route 44/48.

CityBus staff recognize that longer walks to bus stops will not work for all riders, even when a more frequent, faster, and more direct service is available at the closest stop. For all riders who are unable to travel to their nearest bus stop due to a disability, Santa Rosa Paratransit will always be available. Implications of proposed service changes for ADA paratransit service are discussed below.

Figure 4-5 Areas of Reduced Coverage



ADA Paratransit Considerations

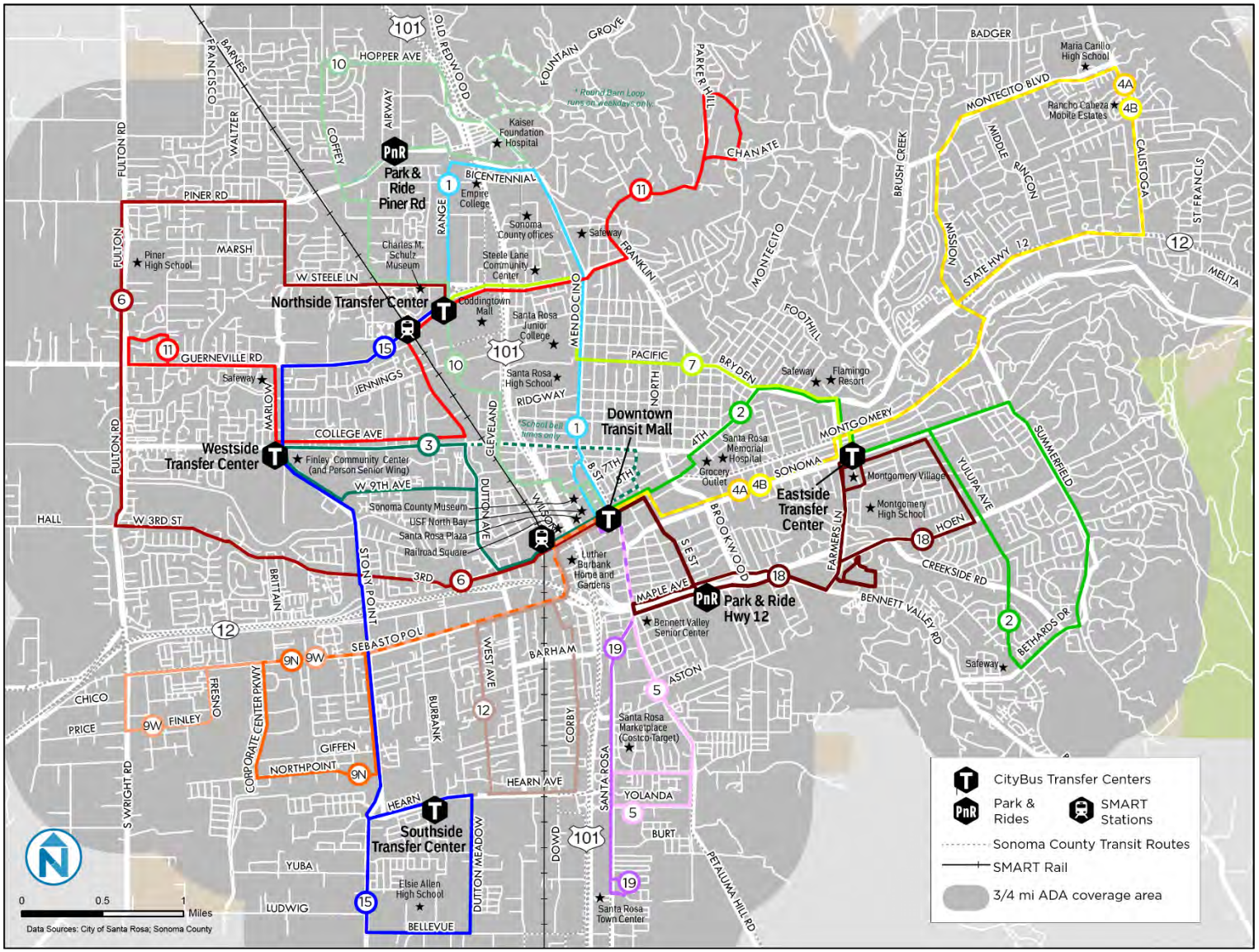
In addition to fixed-route service, the City of Santa Rosa provides ADA-complementary paratransit service within the city and unincorporated Roseland area. ADA paratransit services cover a corridor up to ¾ mile on either side of existing fixed-route services. Figure 4-6 highlights the ¾-mile buffer around proposed routes.

Figure 4-6 illustrates that the ¾-mile buffer still covers nearly all of Santa Rosa under the Phase I recommendation. The only area where coverage within the ¾-mile buffer could be reduced is at the far north of the city, in the vicinity of the intersection of Fountaingrove Parkway and Parker Hill Road.

On weekdays, there would be a very minimal impact on the ADA paratransit service area given fixed-route service on Round Barn Boulevard on Route 10, and on Chanate and Parker Hill Road on Route 11. On weekends the ADA paratransit service area could be reduced further since no service on Round Barn Boulevard and Chanate/Parker Hill Road is proposed on Saturday and Sunday. However, the decision to retain the current paratransit service area versus revising it to reflect the Phase I recommendation is a policy decision to be made by the Santa Rosa City Council. City staff are collecting information on paratransit use in the Fountaingrove area in order to make an informed recommendation to the Council.

Due to reduced coverage of the fixed-route system in some areas, some riders may find that longer distances to bus stops makes it necessary to use ADA paratransit, and these riders may need to shift some or all of their trips to paratransit service. However, an objective of the fixed-route service changes is to empower paratransit riders who are able to use fixed routes for at least some of their trips to transition to fixed routes, with paratransit meeting demands that cannot be met by fixed routes. With improved services, more paratransit users may find they can travel more efficiently to their destination, and because paratransit registrants are able to use CityBus fixed-route services free of charge, there is a financial incentive to do so when possible.

Figure 4-6 ADA Paratransit Coverage



Other Opportunities

In addition to the Phase I recommendations, it should be noted that CityBus has opportunities to address other priorities that emerged during the planning and outreach process for Reimagining CityBus. Some of these opportunities will be discussed in more detail in the discussion of Phase II recommendations in Chapter 5.

Expanded Weekend Service

The truncated span of service on Sundays in particular is an issue that CityBus riders have identified for many years. While it was determined that most riders did not want to cut weekday services to achieve a longer span of service on weekends, expanded weekend service is clearly a priority for many riders. This improvement is discussed in more detail in Chapter 5.

Night Service

Night service was identified as a high priority for Santa Rosa residents, since current CityBus routes generally go out of service around 8:00 p.m. Meanwhile, some of the Sonoma County Transit Routes that traverse the city operate much later: Route 44 provides service from the Transit Mall to Coddingtown after 10:00 p.m. While resources were not available to implement extended hours of operation as part of Phase I, this improvement—including a proposal for a limited night service to provide basic coverage—is discussed in more detail in Chapter 5.

Commute-Period Services

One of the challenges Santa Rosa faces is that key manufacturing, business and medical employment centers are somewhat dispersed, with clusters of employment downtown, on the southeast side, near Coddingtown, and in the north of the city. Some of these employers, such as Keysight Technologies on Fountaingrove Parkway, have limited transit ridership which is usually concentrated during peak commute hours. Rather than operate all-day service to an employer that is located in an otherwise low-transit-ridership area, CityBus could pursue one or more of the three common approaches to providing transit access.

The first option includes working closely with an employer, where CityBus can develop a commute-period route that makes a limited number of runs from the Transit Mall or a SMART station to the employment center. Models for this type of employment shuttle exist across the United States, often with financial support from the employer through subsidies to the transit agency or direct subsidies to employees for use of a specific route. In some communities, multiple employers work together either through a Transportation Management Association or directly with the transit provider to pool funds and establish routes that serve commuters (and often midday or lunchtime trips). Developing this as a public-private partnership has numerous advantages in terms of the City's funding requirements.

The second option is for the employers to offer commuter shuttles for their employees. A major employer could purchase a vehicle and pick up employees at the Transit Mall or a SMART station. In this scenario, CityBus could promote the availability of the service or potentially operate as a contract provider, but may have a modest role in the provision of service.

The third option is to consider marketing vanpools to Santa Rosa employers. Vanpools provide a formal, often door-to-door, commuter option. Vanpool programs have been successfully implemented in the Bay Area and are employer based. Vanpooling works best when implemented

by moderate and large employers with centralized facilities. Often vanpooling is supported by programs such as preferential carpool/vanpool parking, guaranteed ride home programs and employer subsidies. To organize a vanpool program, an employer could work with CityBus for assistance on how to structure a program. If the program were managed through CityBus, CityBus could count those vanpool users as riders.

Vanpool outreach investments may minimize the call for expanded transit services to major employer sites that are located outside the core transit service area or for employers that have shifts or work times beyond the current or recommended transit service provision.

Institutional Pass Programs

CityBus has an opportunity to develop partnerships to increase ridership through pass programs with employers and educational institutions. For example, the Santa Rosa Junior College is a key destination for CityBus riders, but there is no formal partnership between CityBus and the SRJC to enable students to ride CityBus for free as they are able to ride Sonoma County Transit. Such a partnership could provide an opportunity to fund CityBus service and encourage more students to use the system. A common mechanism to provide free transit for students at colleges across California is for students to assess a student fee to provide revenues to support transit and in turn receive fare-free travel via a "U-pass" or "Eco Pass" program.

IMPLEMENTATION: FACILITIES AND OTHER ENHANCEMENTS

Implementation of the Phase I recommendation will require changes to bus stops, evaluation of pedestrian access, and revised public information, among other tasks. This section provides an overview of anticipated activities to support the successful implementation of Phase I.

Bus Stops

Several changes will be needed to bus stops in order to implement Phase I recommendations:

- Some bus stops will need to be removed and others relocated to match the new route alignments. New bus stops will need to be installed, particularly in locations where one-way service has been converted to two-way service. Bus stops are subject to Americans with Disabilities Act (ADA) requirements related to access for people using mobility devices. It will be necessary to ensure that adequate space is available at new or relocated bus stops to provide ADA access and that an ADA compliant path of travel is provided.
- New bus stops will need to be evaluated for safe and feasible bus operations (buses must be able to effectively pull in and out of bus stops), the minimization of walking distances for the majority of passengers (central and close to key travel destinations, pedestrian safety (good pedestrian/vehicle separation – pedestrian signals, crosswalks and sidewalks), and the minimization of bus stop interference with the flow of traffic.
- Some stops that do not currently have amenities such as shelters or benches will require these amenities to provide good customer service in the reconfigured system.

CityBus staff have evaluated locations for new or relocated bus stops and have prepared a list of actions necessary to provide safe, effective, and ADA-compliant bus stops throughout the system.

Pedestrian Access

Pedestrian access—including sidewalks and well-marked or stop-controlled crossings—has been a key consideration in the evaluation of potential new route alignments as part of the Reimagining CityBus process. Of the Phase I service recommendations, one in particular is contingent on improvements to a pedestrian connection: removal of bus service from Colgan Avenue. There is one bus stop on Colgan Avenue, at the Vintage Park senior residence. Santa Rosa Avenue is nearby, with excellent bus service, while ridership on the limited service provided to Vintage Park is quite low. However, upgrades to the pedestrian path will be needed to provide better access to Santa Rosa Avenue. In a few other locations—e.g., the northern part of Fulton Road—bus stops will be limited in number in the short-term due to the lack of sidewalks on the west side of the road to provide access for passengers accessing Route 6 service in the southbound direction.

Information Tools

Maps and Web Resources

Given that Phase I recommendations have been planned in part to avoid duplication with Sonoma County Transit services, and that Sonoma County Transit (SCT) will provide coverage on a few key routes segments that will no longer be directly served by CityBus under these recommendations, it will be important for CityBus public information to be updated to reflect SCT services. This includes the system map, route maps available on the CityBus website, and other web-based information related to trip planning.

There is also an opportunity to update the system map to indicate the frequency of each route, so that riders have an easy way to identify the frequent trunk route system, and the relative frequency of other routes. Many transit operators are moving in this direction in system map design, usually using line thickness, color coding, or a combination of the two to differentiate 15-minute, 30-minute, and 60-minute service.

Wayfinding

With routes being shifted from one street to another and front-door stops not always being made at key destinations, installation of wayfinding signage at specific points in the system will be an important part of implementing the Phase I recommendations. Simple local area maps and arrow signs can direct transit users and other pedestrians to the nearest bus stop or to major destinations when signage is placed at or near the bus stop. For example, a passenger traveling to Santa Rosa Memorial Hospital may be informed that Route 2 provides access to the hospital, but when he or she steps off the bus would not see the hospital one block away. Placing the name of the hospital on the shelter and adding an arrow sign will assist riders in making the best use of the new service. Other locations that would benefit from wayfinding signage include SMART station areas and the County Administration Center area.

5 LONGER-TERM SERVICE RECOMMENDATION (PHASE II)

As Chapter 4 highlights, CityBus has a prime opportunity to improve transit service in Santa Rosa. Given nationwide changes in travel patterns and methods of serving those trips, as well as the opinions expressed by various stakeholders, public transit is a valuable community asset and critical to enhancing the quality of life and supporting economic growth. In some cases, desired services are significantly more costly than what can practically be implemented given short-term funding assumptions (See Chapter 6).

Service recommendations in Phase I are focused on creating a more useful, convenient bus system for riders in the short term, within the existing budget for transit operations. Not all of riders' priorities can be accomplished in Phase I due to budget limitations. The recommendations for Phase II include two types of enhancements that make strides toward addressing desires for additional services:

(1) Investments to reduce transit travel time, extend the service span, increase frequencies and expand the service area. These are investments that could be implemented in the short term if greater funding were available. In the constrained funding environment in which CityBus currently operates, these services are considered desirable but not essential, although their implementation would be expected to attract new riders.

(2) Investments and route restructuring to serve anticipated future needs resulting from growth in areas of Santa Rosa where current population densities do not necessarily merit more service, but expected new development is likely to spur greater demand for transit. This category of future improvements also extends to needs that address CityBus' role within the regional transit network, including coordination with SMART and bus operators.

PHASE II RECOMMENDATIONS

The approach for the Phase II recommendations is not to design a high-cost system, but to respond to current and future needs and anticipated growth and development in Santa Rosa over the next 10-15 years. Recommendations relate to expanded hours of operation, increased frequencies, and route extensions and restructuring.

Expanded Weekend Service

A common request from riders is an expanded span of service and increased frequency on weekends. Many riders have work, social, religious, educational, and recreational commitments on weekends that can be difficult to access using transit. Given riders' priority to retain current

service hours for weekday service, expansion of weekend service was not included in the Phase I recommendations due to funding limitations. However, were funding available, CityBus weekend expansion would be a top priority. As a first step, based on rider feedback, CityBus proposes increasing the Sunday hours of operations to match those of Saturday. ADA paratransit service hours would also be expanded to match fixed-route hours or operation.

Night Service

Night service was also identified as a high priority for Santa Rosa residents. Currently, CityBus service operates no later than 8:30 p.m., with many routes ending service somewhat earlier. There is widespread recognition that a city of Santa Rosa's size, with a robust junior college student body and retail workforce, requires a transit system that operates at least until 10:00 p.m., and ideally until 11:00 p.m. to accommodate college students and second shift workers returning home.

Providing night service does not necessarily require extension of the entire CityBus system at daytime frequencies. As a potential starting point to test demand and begin to provide a basic level of nighttime access for residents, a limited evening service concept was developed as part of the Reimagining CityBus effort. This pilot service could begin with only four buses operating after 8:00 p.m., with each bus making an hourly one-way loop in a different portion of the city to provide coverage of most of the higher density areas, and pulsing hourly at the Transit Mall. Although travel times would be long for some riders and this could reduce demand for the service, nighttime service would provide a circulation option not currently available by public transit. A more robust night service could be built from this initial service as ridership grows.

It is important to note that ADA paratransit service hours would need to be extended to within ¾ mile of any nighttime service routes, which would add to costs of a night service implementation.

Route Restructuring and Frequency Improvements

This section provides an overview of changes to routes to meet anticipated future needs, as well as potential frequency improvements. Figure 5-1 illustrates the recommended Phase II service design. As discussed above, it is possible for most of the route changes illustrated in Phase II to be implemented in phases in response to needs should necessary funding become available. For some routes, no changes are proposed at this time. However, as conditions change additional improvements may be needed, as discussed later in this chapter. The most significant enhancements are as follows:

- **Increasing frequency on Route 1 to 10 minutes.** At 10-minute headways, it is usually unnecessary to consult a schedule: the bus is expected to arrive within a few minutes of reaching the bus stop. At these frequencies, Mendocino Avenue would become known as a "transit-emphasis corridor" due to its 10-minute frequency and convenient service to and between major popular destinations. It could ultimately be designated as a Rapid Bus corridor if speed improvement projects such as Transit Signal Priority, wider/targeted stop spacing, or off-board fare payment were implemented. Any of these improvements would reinforce the strength of the transit corridor, helping to solidify it in riders' minds as the "backbone" of CityBus operations. Another strategy to

cement the importance of this corridor would be to implement special bus stop and vehicle branding, allowing Route 1 to be distinguished from the other routes.

- **Expanded frequent network.** The network of routes operating at 15 minute frequency would be expanded to include an extension of Route 19 south to Todd Road, completing a high-frequency north-south spine in Santa Rosa. Frequent service would also be provided between the Transit Mall and Coddingtown on Route 10, and between the Transit Mall and Mission via Sonoma Avenue and Montgomery Drive.
- **Restructuring services in northern and southwest Santa Rosa.** This includes splitting the loop on Route 10 proposed in Phase I into two tails, and splitting Route 12 into two routes to better serve a developed Roseland area, and to enable Route 15 to connect to Santa Rosa Avenue via Hearn Avenue.
- **Extending Route 11** to serve as a new north side link providing crosstown service between Coddingtown and the Rincon Valley.
- **Increased frequencies throughout the system,** including Route 4A/4B in Rincon Valley, and Routes 7 and 15. While the Phase II recommendation takes a somewhat conservative approach to frequency, with 30-and 60-minute headways in some corridors, frequencies could be increased if demand warrants.

The Phase II recommendation retains some loops in the CityBus system in parts of the city that tend to have lower transit demand. These loops could be converted to bi-directional service in the future should ridership warrant the additional investment. However, based on industry experience, additional frequency is likely to produce the greater outcome in terms of ridership.

Figure 5-2 highlights recommended enhancements to the Phase I recommendations.

Figure 5-1 Phase II – Longer-Range Service Recommendation Map

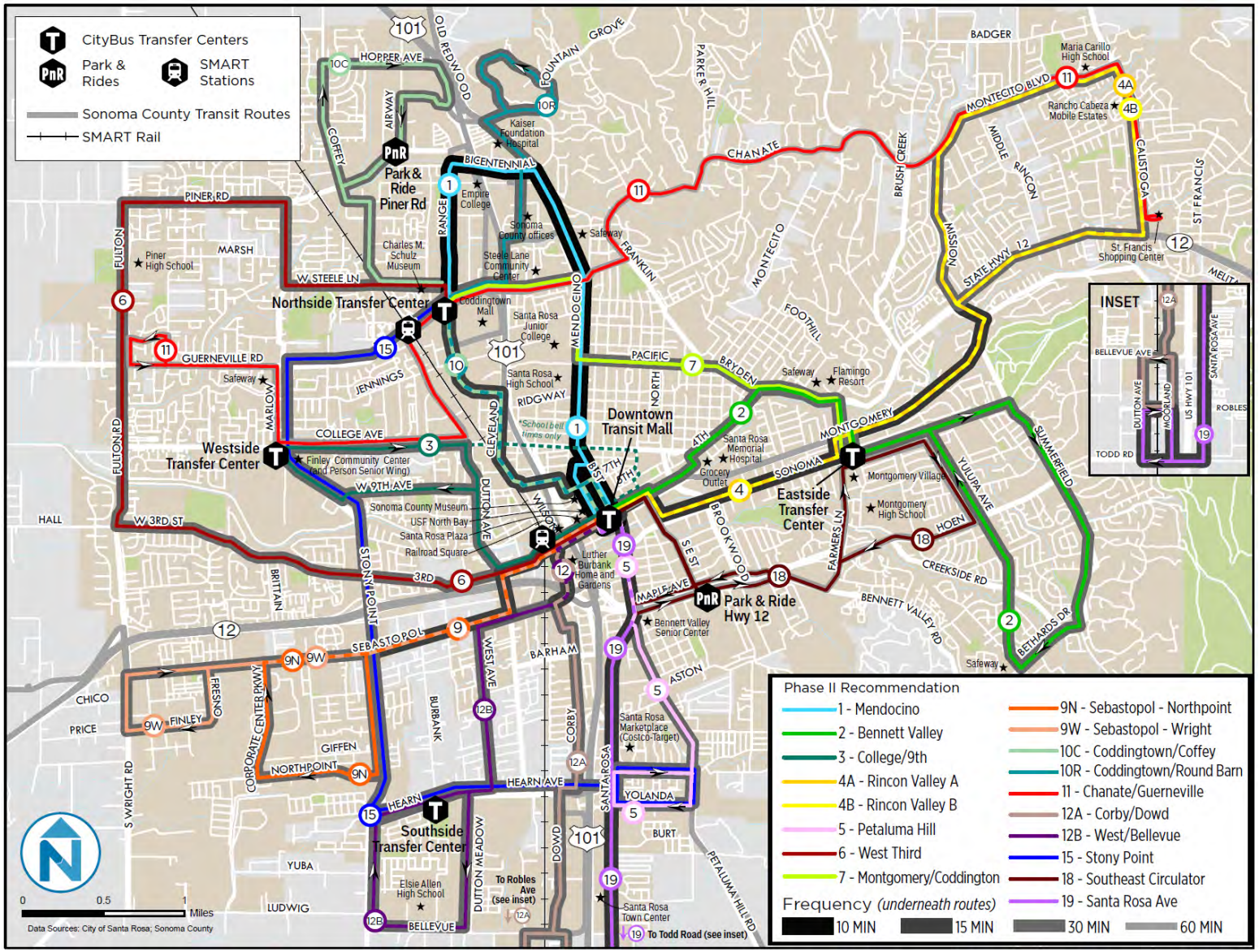


Figure 5-2 Long-Term Route Restructuring and Frequency Recommendations – Descriptions by Route

Phase I Route		Phase I Proposed Frequency	Phase II Proposed Frequency	Proposed Route Changes Phase I to II
1	Mendocino	15	10	▪ Frequency changes only.
2	Bennett Valley	30	30	▪ No changes
3	College/9th	30	30	▪ No changes
4	Rincon Valley A Rincon Valley B	30 between Transit Mall and Mission (via Sonoma Ave.); 60 otherwise	15 between Transit Mall and Mission (via Sonoma Ave); 30 otherwise	▪ Frequency changes only.
5	Petaluma Hill	30	30	▪ No changes
6	West Third	30	30	▪ No changes
7	Montgomery/ Coddingtown	60	30	▪ Frequency changes only.
9	Sebastopol - Northpoint Sebastopol - Wright	15 minute service on Sebastopol Road from Olive to Stony Point; 30 otherwise	15 minute service on Sebastopol Road from Olive to Stony Point; 30 otherwise	▪ No changes
10	Coddingtown/ Coffey Coddingtown/Red Hill	30	15 minute service between Transit Mall and Coddingtown; 30 otherwise	▪ Frequency changes and route alignment change. Single route becomes two variations with different tails: Unchanged routing between Transit Mall and Coddingtown. (10C) Coffey operates north on Coffey, east on Hopper, west on Industrial, south on Airway to Piner, return via Coffey. (10R) Round Barn operates east on Steele, north on County Center, east on Administration, north on Ventura, east on Bicentennial, north on Mendocino, east on Fountain Grove, west on Round Barn and return via Bicentennial.
11	Chanate/ Guerneville	60	60	▪ Route alignment change. Route is extended east via Chanate, Fountain Grove Parkway, Montecito and Calistoga, terminating at St. Francis Shopping Center.

Phase I Route		Phase I Proposed Frequency	Phase II Proposed Frequency	Proposed Route Changes Phase I to II
12	Corby/Dowd West/Bellevue	30	15 between Transit Mall and Boyd; 30 for each segment	▪ Frequency changes and route alignment change. Essentially converts to two separate 30-minute routes: (12A) Operates south on Corby to Dowd with a loop via Bellevue, Dutton, Robles and Moorland. (12B) Operates West on Sebastopol to West Ave. to Hearn, south on Dutton Meadow east on Bellevue, north on Stony Point, returning via Hearn.
15	Stony Point Road	60	30	▪ Frequency changes and route alignment change. Route travels Stony Point to Hearn, crossing Highway 101 and Santa Rosa Avenue to loop via Kawana Springs, Petaluma Hill and Yolanda before returning.
18	Southeast Circulator	60	60	▪ No changes to core route. City staff propose working in cooperation with Vista Sonoma management to identify whether there is a way to provide access to transit service via Farmers Lane for residents who are unable to navigate the hill to and from Vista Sonoma on foot.
19	Santa Rosa Ave	30	15	▪ Frequency changes and route alignment change. Route runs on Santa Rosa Avenue corridor to Todd Road, looping back via Dutton Avenue, Robles and Moorland.

Figure 5-3 illustrates the resource requirements to support the Phase II service recommendation. In total, 36 vehicles are required to serve all the routes at the recommended frequency levels.

Figure 5-3 Resource Requirements

Route		RT Miles	Run Time	Headway	Vehicles
1	Mendocino	7.7	40	10	4.5
2	Bennett Valley	9.4	55	30	2
3	College/9th	5.6	25	30	1
4A	Rincon Valley A	11.1	55	30 (15)	2
4B	Rincon Valley B	11.1	55	30 (15)	2
5	Petaluma Hill	4.8	25	30	1
6	West Third	16.1	70	30	2.5
7	Montgomery/Coddingtown	7.3	55	30	2
9N	Sebastopol-Northpoint	7	40	30 (15)	1.5
9W	Sebastopol-Wright	7.8	40	30 (15)	1.5
10C	Coddingtown/Coffey	10.4	55	30 (15)	2
10R	Coddingtown/Round Barn	9.8	55	30 (15)	2
11	Chanate/Guerneville	20.4	85	60	1.5
12A	Corby/Dowd	7.6	40	30	1.5
12B	West/Bellevue	7.7	40	30	1.5
15	Stony Point	14	70	30	2.5
18	Southeast Circulator	6.8	55	60	1
19	Santa Rosa Ave	9.8	55	15	4

OPPORTUNITIES AND ELEMENTS

A key consideration of Phase II is that all of the recommendations would not necessarily need to be implemented at the same time. Phasing for increased frequencies, changes to route alignments, new or extended routes, longer service spans, and different operating approaches can be determined based on changing needs and priorities over time.

Incremental growth of the system can be accommodated and should be considered. The City of Santa Rosa has several ways to prioritize implementation of Phase II recommendations:

- **Based on ridership on Phase I routes.** If ridership and overall performance is exceeding adopted standards, this is an indicator of potential additional frequency requirements. Additional frequency often also speaks to the need for increased service span. For example if Route 1's performance exceeds expectations and as a result experiences greater delays caused by boarding and alighting activity at stops, it may be an indicator that additional enhancements in the corridor are appropriate, such as conversion to a Rapid Bus route. Careful evaluation of performance based on adopted standards will be the most effective means for prioritizing future enhancements.

- **Based on public preferences.** In CityBus meetings with members of the public, individuals stated their priorities for transit improvements. As discussed above, top priorities included expanded weekend service and night service. Priorities for other improvements can continue to be assessed as conditions change over time.
- **Based on changing land uses and population.** Possible shifts in development patterns or the opening of new destinations (a new medical facility, shopping center, or other employment destination) would suggest the need for service expansions, particularly to areas not currently served by transit. In this case, CityBus could consider modifications to existing routes (as long as those changes do not negatively impact the route's performance or dilute the route's purpose), implement new routes, or consider alternative approaches to serving the new demand through flexible routes, on-demand service, or technology-focused services (such as Uber or Lyft-style service, as discussed below).

Other Ways to Serve Lower Density Areas in Santa Rosa: Technology-Based On-Demand Service

Although Phase II identifies Route 11 as a potential longer-term solution to bridge the connection between the Rincon Valley and Coddingtown, some questions exist about the effectiveness of investing in transit routes that are unlikely to achieve the ridership levels that can be achieved when buses operate in higher density areas, lower income communities, and areas with higher ridership demographics including older adults and zero-vehicle households.

Serving low-density suburban areas with fixed-route transit has been a challenge for transit operators throughout the country. While these areas have demand for transit service, the productivity typically has been low. Many agencies have been looking to address these service areas by introducing new types of service.

Within the Bay Area, VTA and AC Transit have chosen to replicate the on-demand, app-based transit pioneered by Uber and Lyft with in-house services. LAVTA is attempting to develop a user-side subsidy program with transportation network companies (TNCs—e.g., Uber, Lyft), where a portion of a passenger's fare is paid by the agency. Denton County Transportation Authority (north of Dallas and Fort Worth, Texas) and Pinellas County Transit (St. Petersburg, Florida) are in the process of implementing this type of service, as well.

Applications for this type of service in Santa Rosa include Rincon Valley and the areas off Fountaingrove Parkway. This could be an alternative to an extended Route 11, as well as serving areas further north and east. This type of service could also be used as an overlay complementing fixed-route service to fill gaps in coverage in low demand areas.

Under a TNC subsidy approach, Santa Rosa could provide a discount program as a financial incentive to use the dynamic, real-time ride sharing capacities of the transportation network companies (Uber, Lyft, Scoop, taxicabs, etc.), with a goal to reduce the number of single occupancy vehicles and to reduce trip costs to those who are economically challenged. At some of the other transit agencies, customers are provided with a discount code to enter, and then the customer chooses the transportation provider of his/her choice, provides the pick-up and drop-off location, selects the ridesharing option (Lyft Line for example) and enters the discount code. Because transit agencies usually direct their customers to use the ridesharing option (as

opposed to the option of riding alone) the ride will benefit from two discounts—one from the rideshare company itself and the other through the transit agency. The result is a shared ride that on the average is slightly more expensive than what one would pay on fixed-route service, but with a far smaller public subsidy and the convenience of being on demand. The rideshare companies are able to assure the transit agencies that trips taken both start and end within a designated service area. If this were implemented in Santa Rosa, at the end of the month, Uber or Lyft would send an invoice to the City with information on rides that received the discount, including sufficient information needed for the National Transit Database (NTD) to record the trip for CityBus.

Customers without a smart phone or credit card would be directed to taxicabs, which have traditionally been available to schedule rides through a phone call and traditionally accept cash payments. Additionally, TNCs are currently developing "concierge" services to allow accommodations for people with disabilities.

City staff will continue to track developments in technology-based on-demand services and identify opportunities to better meet customer needs using such approaches.

ADA PARATRANSIT CONSIDERATIONS

ADA paratransit services need to be implemented during the same hours and in the same locations (within ¾ mile of a route) as fixed routes. Any fixed routes that might extend into new service areas, such as Route 11, would necessitate an expansion of the ADA paratransit service area. Similarly, longer hours of operation on the fixed-route system would necessitate an expansion of paratransit service hours. The potential impact of expanded paratransit service areas would need to be assessed at the time of the proposed expansion based on development and demographics within the expansion area.

It should be noted that CityBus could consider an expanded service beyond the ADA requirements to be part of a premium service area, for which a premium fare would be appropriate. If a priority of the City is to increase mobility options for people with (or without) disabilities at the outer edges of the city limits where fixed-route transit service is unlikely to serve many passengers, a premium service area with a substantially higher fare may allow CityBus to cover some costs while meeting the needs of the general public. This type of service would be provided outside of ADA paratransit minimum requirements and would not be subject to the rules governing provision of ADA paratransit.

PHASE II IMPLEMENTATION CONSIDERATIONS

There are several implementation considerations related to Phase II recommendations, some of which are optional, while others are essential. Most require additional investments beyond the costs of transit service operations. Key considerations include the following:

- Any expansion of service proposed in this chapter would require an expansion of the CityBus fleet. Depending on the extent of the fleet expansion, there could be implications for the capacity of City of Santa Rosa garage and corporation yard facilities, vehicle maintenance staffing, and transit supervision and dispatch needs.
- A significant increase in fleet size would also have impacts on Transit Mall and transfer center capacity. The Transit Mall is close to capacity at the current operational levels of

CityBus, Sonoma County Transit and Golden Gate Transit. There may be opportunities to expand the downtown transit transfer facilities beyond the current footprint of the Transit Mall in the future. Such an expansion could have additional multi-modal and economic development benefits by potentially providing space in the downtown area for other important operators (such as Airport Express, Greyhound, and Amtrak bus service) to pick up and drop off passengers.

The Northside Transfer Center at Coddingtown Mall would also require expansion and improvements to support a higher level of service, as would smaller satellite transfer centers such as the Eastside Transfer Center at Montgomery Village.

- In the longer-term, effective transit service could be supported by improvements to traffic operations along Mendocino Avenue, Hearn Avenue, Santa Rosa Avenue, Farmers Lane, and several other street segments. Providing buses with their own travel lanes free from traffic is likely to be infeasible in Santa Rosa in the short term, but it is possible to mitigate impacts through other means, such as additional left-turn lanes, off-street parking or parking on connecting streets. A "queue jump" lane—a transit-only lane that exists for only a short distance on approach to an intersection—would allow transit vehicles to bypass lines of cars waiting at red lights, and go ahead of them using a special "advance phase" for transit a few seconds prior to the regular green signal for all traffic. Transit Signal Priority (TSP) systems and retiming of signals (where possible) would also reduce transit travel times making transit more competitive with the automobile in some corridors.
- Improved transit service should be supported by investments in the safety, comfort and capacity of bus stops, providing more and larger shelters on major corridors, improving CityBus signage and making pedestrian access improvements such as completing gaps in the sidewalk network and ensuring appropriate crossing facilities are in place.
- Significant service expansion, particularly an expanded span of service, could require additional supervisory capacity, and potentially additional customer service staffing.

6 FINANCIAL IMPLICATIONS

This chapter discusses the financial implications of proposed transit system improvements for the CityBus operating and capital budgets, for both Phase I and Phase II recommendations. A ten-year financial plan and capital program for Santa Rosa CityBus is provided in the Draft FY 2016-2015 Short Range Transit Plan, which has been prepared concurrently with the Reimagining CityBus Draft Plan and reflects Phase I and Phase II recommendations.

All costs provided in this chapter should be considered estimates. For the Phase I recommendation, the goal of maintaining a steady-state budget has been achieved by limiting service hours to current levels. City and consulting staff generated draft schedules for each route to estimate the service hours needed to implement the Phase I recommendation. Staff anticipates that this estimate is highly accurate; however, the exact number of hours required to operate the Phase I service will not be finalized until a full system-wide run-cut and final schedule is generated following adoption of the plan.

City staff developed estimates of the costs of implementing major elements of the Phase II Recommendation in today's dollars, based on a formula that takes into account costs related to providing additional service hours (e.g., drivers' and supervisors' wages) and incurring additional mileage (e.g., maintenance and fuel costs). As Phase II improvements are considered for implementation in the future, cost estimates will be further refined to reflect current conditions at that time as well as potential impacts on administrative or facilities costs. For example, City staff will work closely with the City Garage to identify potential cost impacts associated with changes to fleet size or hours of operation.

CityBus staff will continue to engage the community and the City Council in discussion of priorities for additional improvements as we move through the implementation of the Phase I service and assess system performance and customer needs.

PHASE I RECOMMENDATION

Operating Costs

Throughout the Reimagining CityBus project, the goal has been to design a short-term service that could be implemented within CityBus' existing budget and fleet. The Phase I recommendation achieves this goal, with a very slight increase in annual service hours. Phase I increases average annual service hours from 88,024 to 89,705, a change of under 2% (Figure 6-1). This small increase in service hours enables CityBus to propose a rational transit network with consistent schedules that increases the quality of service in high ridership areas while preserving lifeline coverage in key areas.

Figure 6-1: Current and Proposed Service Hours

Day of the Week	Current daily hours	Proposed daily hours	Current total annual hours	Proposed total annual hours
Weekdays	299	307	76,245	78,285
Saturday	151	149	7,852	7,748
Sunday	77	72	3,927	3,672
Total		-	88,024	89,705

The Phase I recommendation requires one more vehicle to operate weekday service than is used in the current system. The increase in the weekday vehicle requirement from 22 to 23 vehicles can be accommodated within the existing CityBus fleet. The Phase I proposal does not result in increases to fixed costs such as administrative functions.

Capital Costs

As discussed above, the Phase I recommendation can be implemented within CityBus' existing bus fleet. No additional vehicle procurement is needed. No major changes will need to be made to the Transit Mall, Coddingtown Transfer Center, or other CityBus facilities to accommodate the Phase I service.

Implementation of the Phase I recommendation will require changes to bus stop locations in some parts of the city, addition of new bus stops on streets where bi-directional service is proposed for the first time, relocation of some bus stop amenities such as bus shelters and benches, and removal of bus stop signage at stops that will no longer be directly served. In some cases, minor improvements will be needed to ensure that new or relocated bus stops are ADA-compliant under current requirements. (For example, the ADA requires that bus stops include an ADA compliant "landing pad"—a clear space of 8 feet by 5 feet at bus stops to accommodate boarding and alighting by people using wheelchairs or other mobility devices.) Some stops—such as those serving SMART stations and the Sonoma Avenue bus stops nearest to Montgomery Hospital—have been prioritized for installation of wayfinding signage to direct riders from the bus stop to their destination.

In a few areas, improvements to existing sidewalks may be needed to ensure an ADA-accessible path of travel to the bus stop. One high-priority location for such improvements is the section of Colgan Avenue between the Vintage Park senior community and Santa Rosa Avenue.

City staff anticipates that bus stop changes and improvements can be made within existing funding for bus stop improvements.

ADA Paratransit Costs

At a minimum, CityBus is required to provide ADA paratransit serving all areas within ¾ mile on either side of a fixed-route. As discussed in Chapter 4, because the overall footprint of the proposed Phase I fixed-route system is very similar to existing services, City staff does not anticipate major changes to the paratransit service area, and expects limited (if any) impacts on current paratransit registrants and paratransit service costs.

While most of the route segments eliminated in the Phase I proposal are within walking distance of a bus route, there may be riders who are unable to traverse the distance to their nearest bus stop and will have to shift some or all of their trips to paratransit. Because route segments were identified for elimination based on low ridership or proximity to other service, the Transit Division does not anticipate a major impact on paratransit costs from riders shifting from fixed-route services to paratransit. The Transit Division expects that any increase in paratransit ridership can be accommodated within the existing budget for paratransit service.

PHASE II RECOMMENDATION

Operating Costs

The Phase II recommendation is made up of several elements that can be implemented in stages. The three major categories of improvements are the following (in order of priority identified in Chapter 5):

1) Expansion of weekend service
2) Extended service in the evening
3) Frequency improvements and route restructuring

Within these categories, there are a significant number of variables. For example, expansion of weekend service could mean extending Sunday hours of operation to match Saturday, but it could also refer to increases in frequency on some or all routes on Saturday and Sunday. Extension of service in the evening could involve a very limited "lifeline" service, or an extension of the full daytime service. Finally, the individual route-level frequency improvements and route restructuring proposals in the Phase II recommendation would be prioritized for implementation based on a number of factors, including the performance of the Phase I system, growth and development patterns, and funding availability.

This chapter presents operating costs for the major categories of improvements, in current dollars because of the inherent variability in the approach to implementation of Phase II recommendations. Prioritization and costing of improvements in more detail than what is presented below will occur on an ongoing basis as part of evaluation of Phase I system performance and the assessment of customer needs.

Expanded Weekend Service

Estimated Cost: $375,000 annually for highest-priority improvements

The priority for weekend service is expanding the Sunday schedule to match the Saturday schedule. Saturday service begins on most routes between 7:00-8:00 a.m., with service ending around 7:30 p.m. Sunday service operates between 10:00 a.m. and 5:15 p.m. This would require 72 additional hours of service each Sunday, or approximately 3,672 additional revenue hours annually, at a cost of approximately $375,000 annually.

CityBus' goal of increasing weekend frequency, which on most routes will be half the frequency of weekday service, would require additional investment beyond this figure. Future frequency increases would be prioritized as they have been for Phase I—based on the performance of individual routes and ridership patterns. Following implementation of the Phase I

recommendation, CityBus staff will closely monitor weekend performance to refine priorities for potential future frequency improvements.

Extended Evening Service

Estimated Cost: $355,000 annually for lifeline-level service; $950,000 annually for extension of full system at weekend frequencies; $1,825,000 annually for extension of full system at weekday frequencies *(All costs for weekday night service only.)*

As discussed in Chapter 5, there is a need for transit service between the hours of 8:00-11:00pm to accommodate students, second shift workers, and others with evening activities and commitments. There are several potential approaches to extending evening service, ranging from a limited "lifeline" service to provide basic access to a more robust extension of the system into later evening hours.

As part of the Reimagining CityBus process, the consultant team developed a concept for a limited, quadrant-based night service. This service would use only four buses that would circulate through the highest-ridership areas of each quadrant of the city, pulsing hourly at the Transit Mall to accommodate transfers. Each bus would operate at an hourly frequency. While not a highly convenient or direct service, this type of limited service could provide a low-cost option for providing basic transit access while testing and growing night ridership. However, ridership may be constrained by low frequency and relatively long trip times. A four-bus, limited night-time service could be implemented at a cost of approximately $355,000 annually.

There are at least two other approaches to providing night service. A full extension of the entire CityBus system for an additional three hours (at daytime frequencies) would cost approximately $1,825,000 annually, for weekdays only. However, it is unlikely that daytime frequencies would be warranted on most routes after 8:00pm. A less frequent service on the model of Saturday service (with 12 buses operating instead of 23) would cost approximately $950,000 annually. Once the Phase I system is implemented it will be possible to develop a more refined concept for night service that reflects the level of demand for each route during the existing span of service.

Frequency Improvements and Route Restructuring

Esimated Cost: $6.1 million annually

The Phase II recommendation incorporates changes throughout the system to increase service frequency and restructure routes to more effectively serve certain parts of the city. While some of the proposed changes are interdependent (e.g., restructuring of Routes 12 and 15), most could be implemented individually as they are prioritized and funded. Due to the variability of how route-specific improvements could be phased in, City staff developed high-level costs estimates for the full set of proposed improvements.

Thirteen additional vehicles would be required to implement all of the frequency and route restructuring improvements proposed in Phase II on weekdays. This would increase weekday service hours by almost 60% from Phase I levels, from 307 to 489 hours. In today's dollars, the cost of this increase in service would be approximately $4.8 million annually. Increasing weekend service by the same proportion from current levels (and assuming that Sunday service matches Saturday service in Phase II) would cost approximately $1.3 million annually. City staff estimate that all Phase II frequency and route restructuring improvements could be implemented

at a cost of $6.1 million annually, an increase of approximately 53% over the current budget for CityBus fixed-route service.

Capital Costs

Fleet

Implementation of the full set of Phase II recommendations would require adding 13 buses to the CityBus fleet. While circulator services such as Route 11 and Route 18 could likely be operated with small buses, most of the proposed service would need to be operated with full-size 40-foot buses. Full-size transit buses range in cost from approximately $500,000 per vehicle (in today's dollars) for a clean diesel bus to $750,000 for an all-electric bus. If CityBus pursues an all-electric fleet in the future, a significant fleet expansion could result in the need for additional charging infrastructure.

Transit Facilities

The Downtown Transit Mall is currently near capacity with 23 CityBus vehicles in service, plus Sonoma County Transit, Golden Gate Transit, and Mendocino Transit vehicles sharing the facility. An expansion of the CityBus fleet and increased frequencies on bus routes serving the Transit Mall would require that additional space for passenger boarding and alighting be identified in the vicinity of the Transit Mall. A future expansion of downtown transit facilities could also encompass new downtown stops to facilitate transfer to and from important regional transportation operators including Greyhound, Airport Express, and Amtrak bus service.

Improvements will also be required at other CityBus transfer centers. With the importance of the Northside Transfer Center at Coddingtown Mall expected to increase, a location for a larger facility and full bus turnaround will need to be identified. The Northside Transfer Center as currently configured has significant constraints both in terms of bus operations and passenger amenities.

Similarly, the Eastside Transfer Center at Montgomery Village is in need of substantial upgrades to passenger amenities and will likely require additional curb space for buses to accommodate timed transfers in the future. Other potential future improvements to transfer centers include a reconfiguration of driveways into the Westside Transfer Center to accommodate new bus turning movements in the proposed CityBus route network.

Finally, should CityBus pursue rapid bus services discussed in this report, a significant investment in capital facilities to improve transit travel times such as transit signal priority and queue jump lanes may be required.

Further evaluation will be needed to refine capital needs and costs for transit facility improvements associated with Phase II service expansion.

Corporation Yard

Expansion of the CityBus fleet also has implications for vehicle storage. City staff will need to evaluate the available space at the City's Corporation Yard to determine if additional space will need to be identified for storage of vehicles.

ADA Paratransit Costs

There are several elements of the Phase II proposal that could dramatically increase costs for ADA paratransit service. These include:

- Expanded weekend service on the fixed-route system—ADA paratransit service hours would need to be extended on Sundays to match the fixed-route schedule.
- Extended service at night—ADA paratransit service hours would be extended to match night service on the fixed-route system.
- Coverage of new geographic areas, including southwest Santa Rosa south of Bellevue, Santa Rosa Avenue south to Todd Road, and Chanate Road between Parker Hill Road and Mission Boulevard—ADA paratransit service area would be expanded to include the areas within ¾ mile on either side of these route extensions.

Paratransit cost impacts will need to be assessed at the time that each fixed-route service improvement is considered for implementation, as paratransit demand will vary with changes in population density, demographics, and land use over time.

APPENDIX A:
SERVICE DESIGN GUIDELINES

Proposed Service Design Guidelines

July 2015

I. Introduction

During Phase II of the Reimagining CityBus project, feedback from public outreach and data analysis conducted during Phase I of the project will be used to develop up to three conceptual scenarios for redesign of the CityBus fixed-route system. As the next step in the process, a set of Service Design Guidelines is proposed to provide a policy framework to guide service planning and scenario development.

These guidelines propose a new route typology and principles of transit service design to guide fixed-route service planning. In addition, the guidelines discuss the allocation of service between productivity-oriented and coverage-oriented services, and the concept of designating "transit-emphasis corridors" within Santa Rosa.

These proposed guidelines and policies reflect best practices within the transit industry, analysis of existing CityBus service and its operational context, and public input received during Phase I of the Reimagining CityBus project. The guidelines proposed in this document should be considered a starting point—additional or refined guidelines, policies and standards will be proposed later in the project once alternatives for service design have been reviewed by the public and the City Council.

In the sections that follow, this document addresses proposed guidelines or policies related to:

- Route Typology
- Service Allocation
- Principles of Transit Service Design
- Transit-Emphasis Corridors

II. Route Typology

A transit route typology is a system for classifying services based on their respective roles within the transit network. A route typology provides a framework for differentiating the elements of the transit network and the relationships between different services, as well as the most suitable types of services based on land use and transit demand. A route typology also

allows for development of performance standards that relate to specific types of services, their operating context, and performance expectations.

CityBus does not currently use a route typology. While current CityBus service standards for vehicle headway (frequency) make reference to "trunk" or "feeder" services, coverage-oriented of "lifeline" services, and "high-ridership, high-productivity" services, these service types are not defined or identified within the CityBus route network. In the current system—which is oriented more towards coverage than productivity—even "trunk" routes (routes operating in the highest demand, most transit-supportive corridors) incorporate elements of coverage-oriented service in the form of large one-way loops, and generally operate with the same level of frequency as other services.

Based on evaluation of the elements of the current CityBus system, the operating environment, and opportunities to better tailor services to specific corridors or areas, a route typology is proposed for use in CityBus service planning. If approved by the City Council, the proposed typology will serve as a guide during development of service scenarios in Phase II of the Reimagining CityBus process. Because transit service planning is an iterative process that responds to feedback from the public, stakeholders, and the City Council, a final route typology will not be proposed until a scenario for system redesign is selected for further development in Phase III of the project.

Proposed Route Typology for Santa Rosa CityBus

Four route "types" are proposed for use in developing conceptual service scenarios for the CityBus system. Each route type has different characteristics and a different role to play in the overall transit network, as described below:

Rapid Bus: a specialized service for the busiest segments of high-demand corridors that features direct route alignments and limited stops. Other measures can be taken to make rapid bus service faster and more reliable, such as signal priority for transit. Rapid bus service may operate only on weekdays, when demand is highest. Rapid bus does not require a dedicated lane for transit, as with true bus rapid transit (BRT) systems.

Trunk Routes: the core routes in the system, serving the busiest corridors with direct, frequent service. Trunk routes typically operate 7 days/week and may provide "local" service along rapid bus corridors.

Local Routes: routes that serve moderate demand areas or corridors with service that may run as frequently as trunk routes, or less often. Local routes may incorporate productivity and coverage-oriented segments within the same route, and are designed to connect with transfer hubs, trunk routes, and rapid bus corridors.

Circulators/"Flexible" Services: services that primarily exist to provide coverage in areas with lower transit demand, and to connect residential neighborhoods to transfer hubs and

local/trunk/rapid routes. They may take the form of fixed-routes, deviated fixed-routes, or other coverage-oriented transit service models.

These four route types can be classified into three "tiers" according to whether they are oriented primarily toward productivity, providing coverage, or a combination of the two. As illustrated in Table 1, Tier One services include rapid bus and trunk routes, which provide a core network of frequent, direct, productivity-oriented service. Tier Two local routes are designed for moderate demand areas, and may serve to meet both coverage and productivity goals. Finally, Tier Three services are oriented primarily toward neighborhood coverage and connectivity with local, trunk, and rapid routes.

Table 1: Proposed Route Types by Tier

Type	*Approx. Frequency*	*Span*	*Route Directness*	*Operating Context*	*Markets*
Tier One: Productivity-oriented services					
Rapid Bus	15 min.	Mon.-Fri.	High	Major Arterial	High Demand
Trunk Routes	15-30 min.	7 days	High	Major Arterial	High Demand
Tier Two: Productivity-coverage hybrid services					
Local Routes	30-60 min.	7 days	Medium-High	Minor Arterial	Moderate Demand
Tier Three: Coverage-oriented services					
Circulators/ "Flexible" Services	60 min. or less	Mon.-Fri. to 7 days	Low-Medium	Minor Arterial/ Neighborhood Streets	Neighborhood Coverage

Classification of these route types into tiers is helpful in informing discussion of "service allocation"—that is, the proportion of total service hours that is allocated to meet productivity versus coverage goals. The role of a service allocation policy in transit service planning is discussed in Section III.

III. Service Allocation Policy

A service allocation policy is an attempt to reconcile the inherent tension between services that are coverage-based and those that are productivity-based. Often the expectation of transit operators is that their services simultaneously satisfy competing goals: 1) to provide access to everyone in the community regardless of a route's ridership potential (coverage-based services), and 2) to maximize ridership and minimize costs (productivity-based services). A service allocation policy acknowledges this conflict and attempts to express the community's values and priorities in quantifiable terms. A typical service allocation policy establishes a ratio for service hours allocated toward productivity-oriented routes and hours allocated to coverage-oriented services.

At present CityBus does not have a Service Allocation Policy to guide the Council and Transit Division staff in balancing productivity and coverage goals. In addition, it is difficult to establish the current ratio of productivity-oriented and coverage-oriented services in the CityBus system, since even routes that operate on major arterials in high-demand corridors (i.e., Tier One services under the Route Typology formulation discussed above) tend to incorporate significant coverage-oriented elements in the form of large one-way loops. Because the allocation of service hours to productivity versus coverage-oriented services can be an abstraction in the absence of sample service scenarios—a specific service allocation policy is not proposed at this time.

Transit staff does recommend that any service scenarios developed in Phase II of Reimagining CityBus incorporate true productivity-oriented services within Tiers One and Two, and differentiate productivity and coverage-oriented services within the system according to the proposed Route Typology. The scenarios to be developed in Phase II will illustrate the impacts of shifting the allocation of hours among the tiers so that the public and the City Council can make an informed decision about the appropriate allocation of service to coverage-oriented versus productivity-oriented services in Santa Rosa.

Following selection of a service scenario at the end of Phase II of the Reimagining CityBus project, a specific service allocation policy will be proposed for adoption by the City Council.

IV. Principles of Service Design

To complement the proposed Route Typology and considerations related to service allocation, several principles of transit service design are proposed for use in scenario development and service planning. These principles reflect well-established best practices in transit service planning as well as feedback from CityBus riders and community stakeholders.

The proposed principles are:

- **Frequent service:** While not all routes can operate with a high degree of frequency due to budget limitations, there is a clear role for a coherent frequent network within the CityBus system that is responsive to demand and key travel patterns within Santa Rosa. Frequency of service is one of the most important factors in supporting transit ridership. Infrequent service lengthens overall travel times, requires users to plan their schedules around the bus schedule, and may result in long waits if a user misses a bus. Frequent service, by contrast, allows users to travel when they want, without relying on or even necessarily checking a schedule, and allows transit to approach the level of convenience a road offers motorists: it is there whenever users want it.

- **Direct Alignments:** Service planning should prioritize direct alignments (for Tier One and Tier Two services in particular) to speed transit trips and reduce passenger confusion. While service to out-of-the-way destinations may sometimes require route deviations, routes should generally be as straight as the street pattern allows. Direct

paths make for the fastest trip possible, and can also make the route network more "legible" or easy to understand. Routes that primarily travel on a single street may become so closely associated with that street that they are thought of effectively as part of the street, thereby reducing the uncertainty that can come into play with transit travel.

Less direct alignments may be appropriate for Tier Three coverage-based services; however, route alignments and the vehicle's path of travel should still be easily understood, and an effort should be made to provide the most direct alignments possible while meeting coverage goals.

- **Bi-directional Service:** To the extent possible given budget limitations and coverage needs, long segments of one-way service should be converted to bi-directional service. While one-way couplets or loops may be necessary in some cases, long segment of one-way operation should generally be avoided—particularly large, looping segments where stops in the opposite direction of travel are not located nearby. In these cases, the utility and effectiveness of service is severely limited, as reverse trips may require significant out-of-direction travel and take significantly longer to complete.

  Given budget constraints, conversion of one-way service to bi-directional service may result in reductions in coverage. In the current CityBus system, large one-way loops serve the purpose of providing a high level of coverage, despite a corresponding reduction in the transit system's effectiveness. Loss of coverage from conversion of one-way to bi-directional service should be evaluated against the benefits of providing faster, more convenient, and more understandable service to riders.

- **Strong Anchor Points:** Starting and ending routes at strong anchor points or transfer points promotes high ridership along all route segments. To avoid routes that operate with low ridership along portions of their alignment—thereby reducing the route's overall productivity and effectiveness—routes should be anchored at both termini with trip generators (e.g., retail centers, schools) that will generate ridership along the length of the route.

- **Spacing Between Routes.** To maximize use of operating resources and avoid duplication of services, routes should be spaced to avoid multiple routes serving the same corridor, unless those routes are part of a specific service design such as a "trunk and branch" approach to serving a major corridor. Research has found that most transit users are willing to walk up to one-quarter mile to and from bus stops. Each transit route, then, can be understood to serve a corridor roughly one-half mile wide, except where the road network prevents reasonably direct pedestrian access.

- **Connectivity Between Routes**. If routes are to be made relatively direct and frequent, it may not always be possible to provide "one-seat" rides or direct connections between riders' origins and destinations. This is not a problem for most riders if service is relatively frequent and connections are timed to provide for seamless transfers. While riders typically prefer not to transfer, well-designed connections between routes can maximize the effectiveness of the entire transit network, and can even reduce overall trip times for passengers.

These principles are to serve as guidelines for service planning. Their specific application may vary in response to the characteristics and constraints of CityBus' operating environment.

V. Transit Emphasis Corridors

Transit-emphasis corridors are street segments in which high-quality transit service is provided, land use is transit-supportive, and physical improvements supporting transit are prioritized. Characteristics of transit-emphasis corridors include the following:

- **Transit service:** transit frequencies of 15 minutes or less in each direction
- **Land use:** relatively continuous commercial uses, or relatively high residential densities; major civic, institutional and other destinations; land use plans featuring transit-supportive uses
- **Infrastructure:** a range of potential improvements that may include high-quality transit amenities, high-quality pedestrian connections, bus stop design changes to reduce delay, and other measures to increase transit travel speeds, including rapid bus style facilities such as queue jump lanes and transit signal priority.[1] A dedicated lane for transit is not required, nor are dedicated transit lanes proposed at this time.

There are several existing street segments in Santa Rosa that feature combined transit frequencies (i.e., frequencies based on multiple routes) of 15 minutes or better and transit supportive land uses and land use plans, including:

- Mendocino Avenue between Downtown and Steele Lane (and secondarily between Steele Lane and Bicentennial Road)
- Santa Rosa Avenue between Downtown and Santa Rosa Town Center, and
- Sebastopol Road between its eastern end and Corporate Center Parkway.

Designation of transit emphasis corridors would be a new planning and policy approach for Santa Rosa, and one that could powerfully link transit, land use, and capital improvement planning and promote a "virtuous cycle" of increasing transit demand. Designation of transit-

[1] A queue jump lane is a facility used to provide preference to buses at signalized intersections and is often accompanied by a signal phase that provides priority for vehicles in the queue jump. Together these facilities enable a transit vehicle to get a head start through the intersection ahead of other traffic and then merge back into the travel lane immediately beyond the signal.

emphasis corridors can also be seen as a natural evolution of multi-modal transportation planning activities that are already underway, including the corridor plans completed for segments of Mendocino Avenue, Santa Rosa Avenue, and Sebastopol Road, and designation of these same corridors as Priority Development Areas through the Plan Bay Area Regional Transportation Plan process.

At this time, Transit staff seeks agreement from the City Council to further study this concept for the identified corridors and potentially others identified through the service planning process in Phase II of the Reimagining CityBus project. Transit staff will work closely with colleagues from City departments to assess the implications of designating transit-emphasis corridors and present this information to the City Council prior to any request to adopt a transit-emphasis corridor policy or designate specific transit-emphasis corridors.

VI. Recommendation to City Council

It is recommended by the Transportation and Public Works Department that the Council, by motion, approve the proposed Service Design Guidelines for use in transit service planning for the Reimagining CityBus project, including the proposed Route Types, inclusion of productivity-oriented services within service scenarios, the proposed Principles of Service Design, and further development of the Transit Emphasis Corridors concept.

APPENDIX B:

SUMMARIES OF PUBLIC FEEDBACK

Reimagining Santa Rosa CityBus

Summary of Feedback—Phase I

During March through May 2015, Transit Division staff conducted a multi-faceted outreach effort to seek feedback from the Santa Rosa CityBus riders, stakeholders, the general public, and Transit Division staff about priorities for changes to the CityBus system, as well as information about preferences in relation to trade-offs in transit system design. This outreach effort included:

- Outreach at seven major community events
- Outreach to riders at the Transit Mall and Coddingtown Transfer Center
- Twenty interviews or meetings with stakeholders or stakeholder groups
- Two interactive workshops involving the City Council, stakeholder representatives, and CityBus riders (two additional workshops were conducted with CityBus bus operators and Transit Service Representatives)
- A "Priorities and Trade-offs" survey administered online and in hard copy, in English and Spanish
- Collection of public comment through an online comment form, conversations at outreach events, and an open-ended comment field in the survey.

Outreach events were broadly advertised through the Reimagining CityBus website, the CityBus email alert list, posters and takeaway cards onboard buses and at the CityBus customer service counter, and City of Santa Rosa and partner agency social media and mailing lists. All notifications and information (including the survey) were provided in English and Spanish, and Spanish-speaking staff were present at public workshops and outreach events.

This document provides a summary of the feedback received, in the following sections:

1) Stakeholder Interviews and Meetings
2) Priorities and Trade-Offs Survey
3) Public Comment

An appendix includes a summary of public feedback collected during the 2012 Short-Range Transit Plan process since much of the feedback received during that process is relevant to the Reimagining CityBus effort.

Any questions or comments about this summary or about the Phase I outreach can be directed to Rachel Ede, Reimagining CityBus project manager, at 543-3337 or rede@srcity.org.

1) Stakeholder Interviews and Meetings

Between March and June 2015, Transit Division staff reached out to a wide range of stakeholders including representatives of education institutions, medical institutions, human services organizations, major employers, and advocacy groups to request an interview or meeting to discuss transit needs and priorities. The individuals or groups interviewed are identified in Appendix A. This section provides an overview of major themes and sample comments from stakeholder interviews and meetings.

Feedback About the Role of CityBus

Respondents' feedback about the role of transit in Santa Rosa varied, with most describing a system that meets the needs of its low-income ridership base while adding services that would attract more discretionary riders (e.g., more direct, faster service, rapid bus, express service). Some representatives of lower-income groups also expressed the need for the type of services that would tend to attract more discretionary riders, recognizing that more direct, faster service would also benefit low-income riders (one person noted that it "takes all day to do the shopping" on the current system). One respondent discussed "transit that works for everyone"—describing a system that balances coverage and productivity-oriented goals.

Major Themes

Commonly mentioned general improvements included the following:

- **Increased frequency:** Several stakeholders commented that increased frequency (e.g., 15 or 20 minute service instead of 30 minute service) in the fixed-route system is needed to meet the needs of existing riders and attract new riders to CityBus. One stakeholder noted that there is a perception that CityBus frequency is less than it actually is, causing concerns about multiple hour waits if a patron misses the bus, and that there may be an opportunity to address that misperception through marketing.

- **Evening/night/weekend service:** The need for later service was a common theme. Stakeholders noted that later bus service (to 10:00pm or later) is needed to accommodate patients visiting medical clinics, patients being discharged from hospitals, second-shift retail employees, Santa Rosa Junior College students attending evening classes at both the main and Southwest Santa Rosa campuses, and residents attending Santa Rosa City Council meetings. The need for a longer span of service on Saturday and particularly on Sunday was noted. One stakeholder suggested that at a minimum the Sunday span of service be lengthened to match Saturday service.

- **Transit Mall security:** In many of the stakeholder interviews, the perception or reality of Transit Mall security issues was raised. Stakeholders who serve youth noted that many parents do not feel comfortable with their children transferring and waiting at the Transit Mall and therefore other transportation modes are used, and two stakeholders

noted that some people get off the bus before the Transit Mall in order to avoid it. Several stakeholders commented that the Transit Mall is much safer than many perceive it to be, though specific incidents were cited, and concerns were raised about safety after dark when only Golden Gate Transit and Sonoma County Transit are operating and the Transit Mall is largely empty.

- **More direct and faster service:** Some stakeholders felt that CityBus service should be more direct and that an effort should be made to reduce transit travel times that can lead to long trips if a patron needs to make multiple stops along the way. This included discussion of providing crosstown services or evaluating whether some service that currently travels downtown should be reoriented around a hub in the vicinity of the Santa Rosa Junior College or other transfer centers.

- **SMART Coordination:** Many stakeholders discussed their hope that CityBus would create connections with SMART rail service, including routes or shuttles that serve the SMART stations with coordinated schedules (to the extent possible). Suggestions included making sure there are good connections to destinations including the Museum on the Square building and California Wine Museum (adjacent to the Transit Mall) and the Santa Rosa Junior College, marketing the ability for SMART riders to connect to destinations throughout Santa Rosa, and partnering with SMART to provide transportation for tourist-oriented special events in Santa Rosa.

  CityBus was also identified as having a potential role to play in making first mile/last mile connections for large employers with employees traveling to and from Santa Rosa using SMART, and stakeholders suggested that CityBus staff participate in discussions with SMART, and Santa Rosa Chamber of Commerce and large employers about the type of service that would support employees' use of SMART.

- **Reliability:** A few stakeholders commented that ensuring the ongoing reliability of the system should be paramount, as without reliability, the transit system will not have credibility with the public.

New Service Types

Many stakeholders discussed the need for new service types in the CityBus system:

- Several stakeholders mentioned bus rapid transit or rapid/express bus service with limited stops and identified Mendocino Avenue as a corridor that would support and benefit from this type of service. It was suggested that rapid bus service be linked to SMART and the needs of major employers.
- Stakeholders suggested evaluating opportunities for circulator or feeder services (possibly operated with smaller vehicles) that connect with more direct/fast fixed-route services and deviated fixed-route service operated with smaller vehicles. Rincon Valley

and Bennett Valley were identified as neighborhoods where circulator service would make sense.

- Stakeholders also identified opportunities to design services around specific markets, such as patrons traveling to areas with concentrations of healthcare services, such as Round Barn Boulevard and the Kaiser Permanente campuses. While Kaiser Permanente currently provides an employee and patient shuttle connecting its facilities, it was suggested that CityBus could have a stronger role in meeting the need for travel to and among Kaiser facilities.
- One stakeholder group expressed the need for public transit operators to find new ways to respond to demand in real-time using technologies that are being employed by private enterprises such as Uber and Lyft.
- One stakeholder identified the need for a branded (vintage/unusual/fun) service connecting downtown Santa Rosa and Railroad Square in conjunction with the beginning of SMART operations.

Specific Locations Needing Service or Improved Service

Stakeholders identified the following locations that should be served by CityBus or can be difficult to reach using CityBus:

- Vista Community Health and the Kaiser offices on Round Barn Boulevard. Transit patrons must travel the large loop via Chanate Avenue and Parker Hill Road to reach the clinic or Kaiser facilities. Some patrons arrive at the Mendocino Avenue Kaiser campus thinking that is where their appointment is, and have to get up the hill to Round Barn Boulevard without a good transit link.
- Kaiser Permanente Old Redwood Highway (Stein) campus. CityBus does not serve this campus, which provides a range of outpatient and office services to patients (including pediatrics) from 8:30am-5:00pm during the week, with health education classes until 9:00pm.
- Sonoma County Airport area (outside the City limits)
- New Sutter Medical Center on Mark West Springs Road (outside the City limits)
- Spring Lake Village in eastern Santa Rosa
- New Kaiser Medical Office Building planned for Mercury Way and Northpoint Parkway (occupancy expected in late 2017). This location is currently served by CityBus routes 9 and 15, but may need improved service with the opening of the Kaiser facility.

Inter-Operator and Multi-Modal Coordination

The topic of coordination among CityBus and Sonoma County Transit and Golden Gate Transit was raised in several interviews. Stakeholders noted the challenges of navigating multiple systems with different transfer rules, fare structures, and fare media or payment methods. Simplifying fares and fare payment for those transferring between systems was specifically cited, with several stakeholders mentioning Clipper implementation as a step in the right direction. Stakeholders also suggested that CityBus work with partner operators to coordinate

schedule changes to reduce passenger confusion and preserve important transfer connections. Also discussed was the need to find a location to facilitate transfers between CityBus, Sonoma County Transit, Golden Gate Transit, and other transportation service providers such as Airport Express, Greyhound, and Amtrak Bus service. Finally, one stakeholder suggested that services be coordinated to produce the best mobility outcome even if that outcome requires changes to individual operators' service areas or operations.

Stakeholders also addressed multi-modal coordination, recommending that more attention be paid to integrating various modes of transportation. On the topic of bus-bike coordination, stakeholders recommended installing three-bike racks on all CityBus vehicles, considering bike cages as a more secure approach for bike parking at transit hubs, and supporting bikeshare as a complementary mode to transit.

Finally, in one stakeholder meeting there was discussion of opportunities for CityBus to coordinate with senior living facilities that provide van service to more efficiently meet mobility needs throughout the community using a mobility management approach.

Network Design and Important Connections

Stakeholders made a range of suggestions that relate to network design and connections between neighborhoods and destinations. Comments included the following:

- There is a need for a single rationalized, recognizable, consolidated, and frequent service along the Mendocino Avenue corridor.
- People living in northwest Santa Rosa need a better connection to Kaiser on Mendocino Avenue without going through downtown in either direction. Specifically, a connection is needed between Coddingtown and Kaiser.
- Many Kaiser and Keysight employees live on the east side of the City (e.g., Rincon Valley), so a more direct transit connection would be helpful, though transit ridership is low among this group.
- There is no easy way to get to northeast Santa Rosa from Stony Point Road and the Transit Operations Building (where the lost and found is located).
- A strong connection is needed between southwest Santa Rosa and the SRJC campus.
- With SMART service commencing, the system needs a route connecting downtown and Railroad Square.
- A transfer hub at the SRJC main campus should be evaluated given the important of the SRJC as a trip generator and the number of destinations along Mendocino Avenue.
- Bi-directional service is needed on the outer loops in the northeastern and northwestern parts of the city (e.g., Routes 4 and 7, Routes 11 and 14).
- Service to the Railroad Square SMART station should occur via Third Street rather than Wilson Street.

Stakeholders highlighted the important of travel to Mendocino Avenue and suggested interlined service from specific neighborhoods to CityBus' Mendocino Avenue services (e.g.,

interlines between Route 2 and Route 19 with Mendocino service on Route 1 or 14). These interlines would afford riders a one-seat ride from neighborhoods to destinations along Mendocino Avenue.

Comments About Existing CityBus Routes

The following route-specific comments were received:

- Route 1: Service to Round Barn Boulevard (Vista Community Health Center, Kaiser Permanente specialty offices) is inconvenient for riders since they have to ride all the way around the Chanate/Parker Hill Road/Fountaingrove Parkway loop. There is no transit link from Mendocino Avenue director to Round Barn Boulevard, though Kaiser Santa Rosa's new shuttle service provides a link for Kaiser members and employees.
- Route 2: Restored 30 minute service needed.
- Route 3: Route 3 should be interlined with itself again.
- Route 4: On-time performance problems occur after 1:30pm.
- Route 8: Adjust the schedule to better reflect Slater Middle School bell times.
- Route 7: On-time performance problems occur after 1:30pm.
- Route 9: Overcrowding is problem, particularly between 7:30-10:00am and 2:00-6:00pm.
- Route 10: Bi-directional service is needed. This route currently operates as a one-way, clock-wise loop linking the Transit Mall, Coddingtown (via Cleveland), and the Santa Rosa Junior College.
- Route 12: The recent change to operating Route 12 on Delport and McMinn rather than continuing north on West Avenue is inconvenient for some riders.
- Route 12: Overcrowding occurs at peaks.
- Route 14: This route should serve Coddingtown.
- Route 18: The gap in the weekend schedule at 12:50pm makes shopping at Target or Costco difficult, and expanded hours of operation are needed.

Marketing

Stakeholders made several suggestions about the marketing of CityBus services. Stakeholders suggested that CityBus:

- Pursue additional partnerships with the business community, using the new SB1339 requirement as a means to promote Free Ride Program participation and other incentives for alternative transportation use, leveraging the arrival of SMART as an opportunity to promote and position CityBus service as the local connection to various destinations, and working to help businesses address parking constraints.
- Specifically market services that serve clinics, hospitals, and medical offices given the volume of trips to medical destinations,

- Increase education about costs of auto commuting and existing service levels (buses come more often than many people think they do); consider more promotions to encourage people to try the bus (e.g., by offering free tickets)
- Further market the resources CityBus makes available to riders, including the online trip planner, real-time transit information app, and in the future, Clipper smart card fare payment
- Focus on getting youth to use transit and keeping them using transit as they get older—promote transit at SRJC and get new students on the bus on day one
- Address safety perceptions by using the local media to tell the story that using the bus is safer than people think it is
- Find ways to make transit more fun

Passenger Experience

Stakeholders acknowledged that CityBus has taken steps to improve the customer experience, such as providing stop enunciators on all vehicles and training drivers to work to accommodate passengers traveling with carts or other items.

Suggested actions to improve the customer experience for people with disabilities included providing a tactile stop identifier on bus stop poles, empowering bus drivers to ensure priority seating is available for those who need it, reminding operators that some vision disabilities may not be apparent and customers may need help inserting transfers into fareboxes, and consulting with the Earl Baum Center and others to learn more about emerging technologies for improving the accessibility of maps and real-time transit information.

Suggestions for improving the experience for the overall ridership included taking steps to reduce the incidence of inappropriate conversations on the bus, making it easier to plan trips, and restoring the interline information on the system map. Stakeholders also suggested more shelters, trash cans, and amenities such as lockers, vending, wifi, and water at bus stops and transfer centers.

Fares

Aside from comments related to the benefits of Clipper in reducing confusion around transit fare payment (particularly for those using multiple operators), the topic of transit fares was raised in a few stakeholder interviews. Respondents cited Sonoma County's recently-adopted pilot program providing free transit to college students and veterans, discussed the challenges faced by low-income families providing bus passes to multiple K-12 students, and requested that CityBus adopt a similar program. Stakeholders commented that a $50 monthly bus pass is too expensive for many college students, and that CityBus should at the least consider extending the youth fare discount to college students.

2) Priorities and Trade-Offs Survey

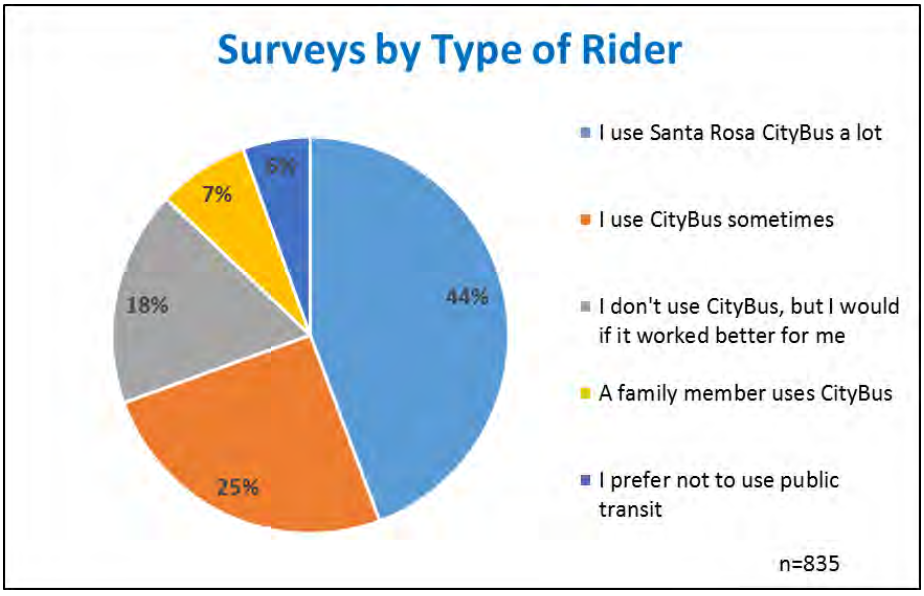
During March through May 2015, Transit Division staff administered a Priorities and Trade-Offs Survey to better understand priorities for changes in the transit system and to gauge respondents' willingness to accept certain trade-offs in transit system design. The survey was administered online and in hard copy, in both English and Spanish. In addition to publicizing the online survey through the Reimagining CityBus website, the CityBus email alert, social media and partner organizations, Transit Division staff brought hard copies to outreach events throughout the spring. A total of 839 responses were collected by June 1, 2015, with 35% completed online, and 65% in hard copy. Eight percent of the surveys were completed in Spanish.

It is important to note that this survey was not designed to provide statistically significant results. The goal of the survey was to reach a broad cross-section of CityBus riders and Santa Rosa residents in order to generate a greater volume of feedback on key decisions about transit system design than can be achieved with workshops and other meetings. Given that the survey did not employ a scientific sample of the population, the results should be taken with a grain of salt and considered in conjunction with the full range of feedback received from public comment, workshops, and stakeholder outreach.

Respondent Characteristics

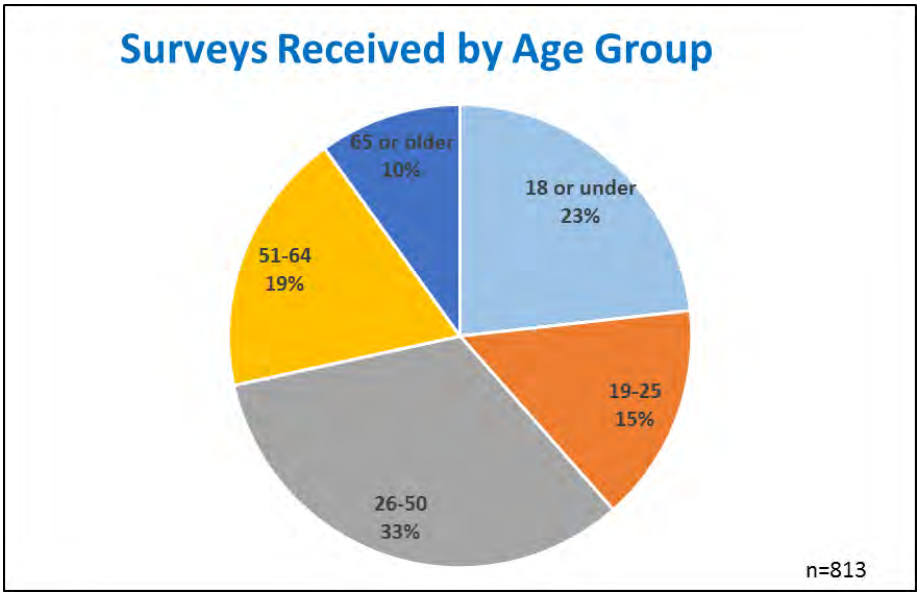
In order to understand who was filling out surveys (and how representative this group is of Santa Rosa's overall population) and to be able to perform cross-tabulations to understand differences in preferences among groups, basic information about respondents was collected (e.g., age range, rider or non-rider status). As shown in Figure 1, most respondents were CityBus riders, with 44% of respondents stating that they use CityBus "a lot" and 25% using CityBus "sometimes". Nearly 20% stated that they do not use CityBus, but would if the service worked better for them. Smaller percentages identified as family members of CityBus riders, or stated that they prefer not to use public transit.

Figure 1: Percentage of Surveys Received by Type of Respondent



In order to evaluate how representative the sample was of Santa Rosa's population as well as understand how preferences vary by age group, respondents were asked to identify their age range. Figure 2 displays the percentage of surveys received by age group. Overall, these percentages track fairly closely with demographics in Santa Rosa, with the 19-25 year old age group slightly over-represented in survey results and the 65 and older group slightly under-represented.

Figure 2: Percentage of Surveys Received by Age Group

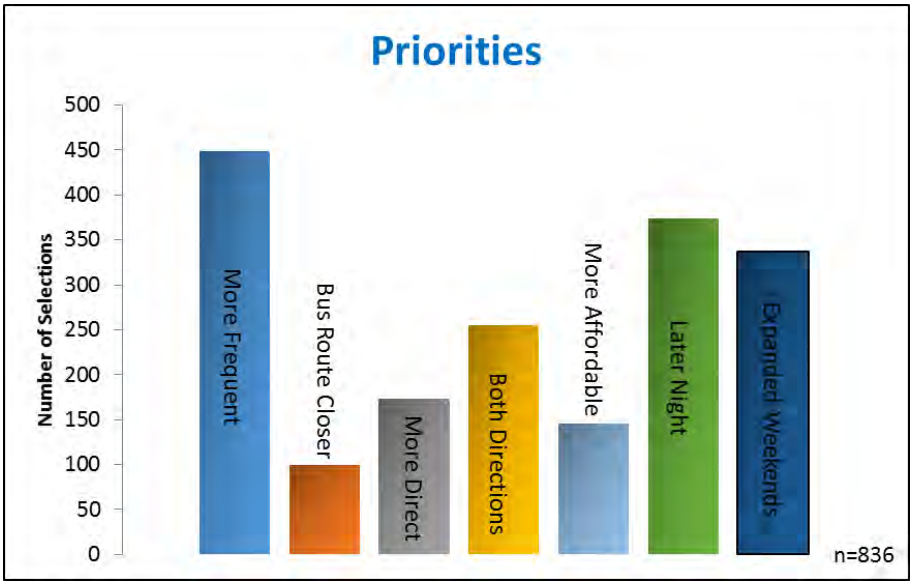


Priorities

Each respondent was given a list of seven options for improving transit services, and asked to pick no more than three top priorities. The seven options were: 1) more frequent service, 2) a bus route closer to the respondent's house, 3) more direct service, 4) more routes than run in both directions, 5) more affordable service, 6) later service at night, and 7) expanded service on weekends.

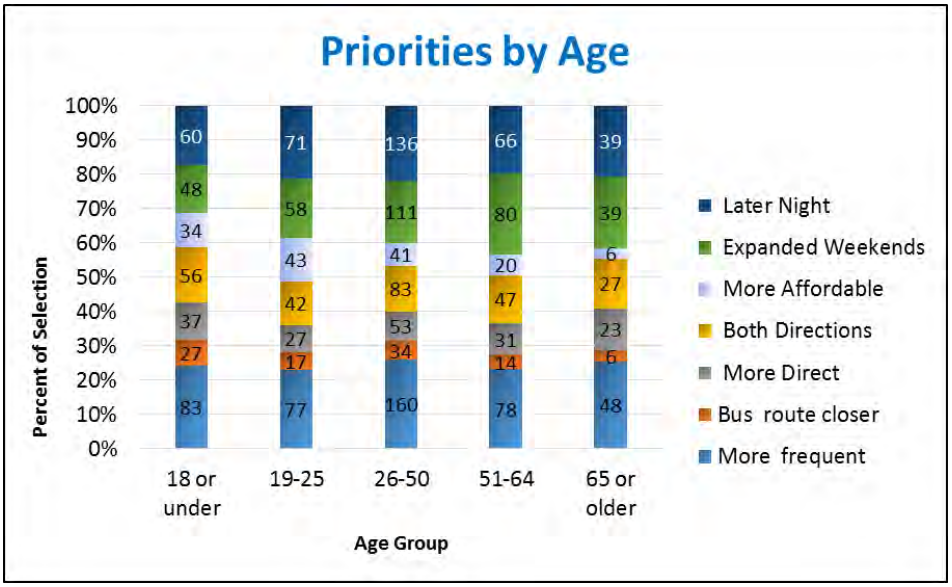
As shown in Figure 3, the most commonly selected priorities included more frequent service, later night service, and expanded weekend service. Respondents also had the opportunity to write in a priority. Of the write-in priorities, the most common category was free fares or additional discounts for students, seniors, and people with disabilities, followed closely by increased frequency, longer span of service during the week, longer span of service on weekends, and a smaller number of comments related to improved connectivity with other transit operators. (There were also a number of comments unrelated to service design and fare policy, including comments related to facilities, vehicles, and marketing.)

Figure 3: Priorities—All Respondents



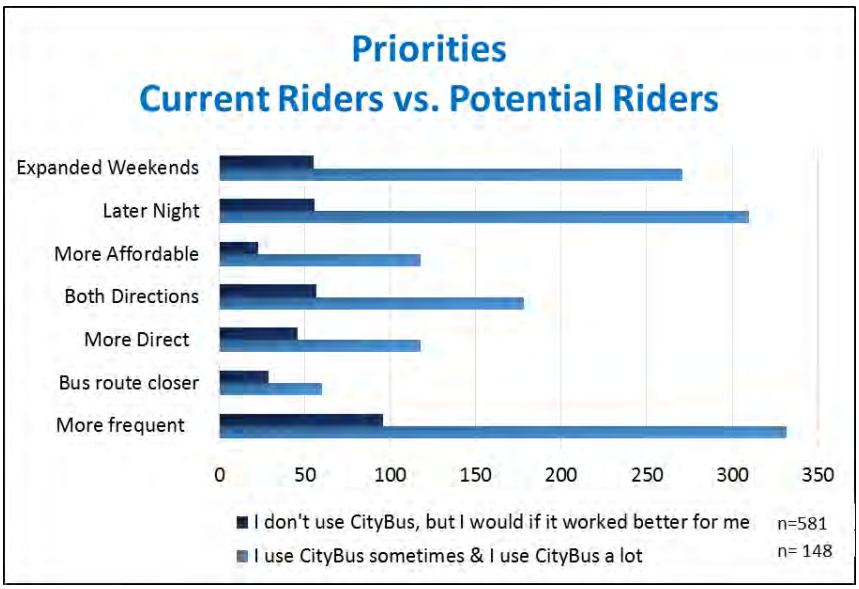
In general this pattern was consistent across all age groups (Figure 4). For all age groups with the exception of the 51-64 age group, "more frequent service" was the most commonly selected priority (the 51-64 cohort selected "later service at night" slightly more often that more frequent service). More frequent service, later night service, and expanded weekend service were the top three most commonly-selected priorities for all age groups, with the exception of the 18 and under age group, which selected "service in both directions" slightly more often than "expanded weekend service."

Figure 4: Priorities by Age Group



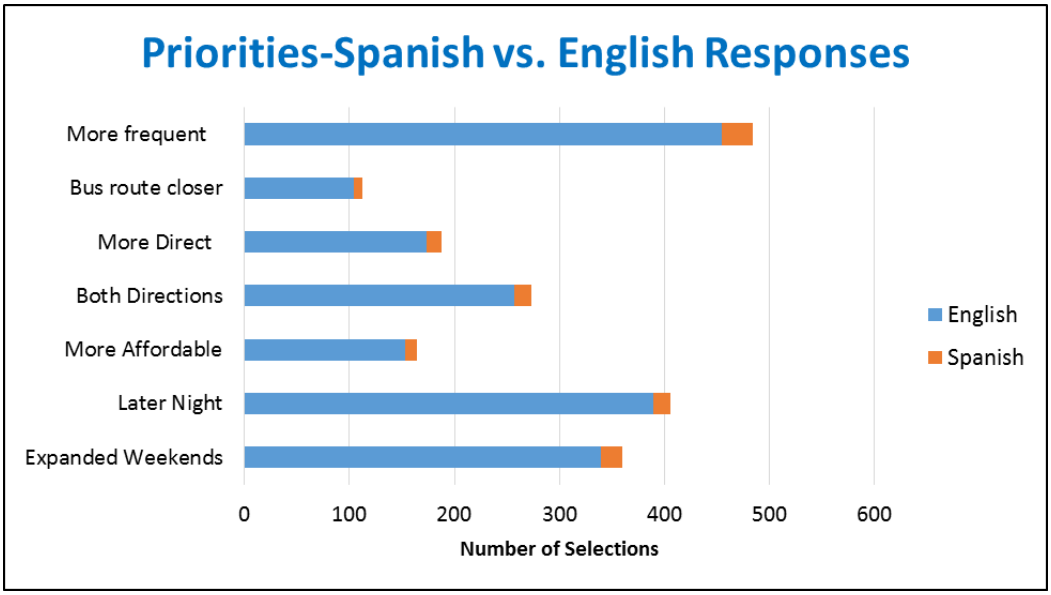
Priorities for riders (respondents identifying themselves as people who ride CityBus "a lot" or "sometimes") versus potential riders (respondents who said they don't use CityBus but would if it worked better for them) followed a similar pattern. For both groups, more frequent service was the top priority. Current riders prioritized later night service second, and expanded weekend service third. Potential riders also selected "more frequent service" most often, with expanded weekend service, later night service, and service in both directions effectively tied for second place.

Figure 5: Priorities for Current Riders vs. Potential Riders



Finally, responses from surveys completed in Spanish were compared to responses from surveys completed in English (Figure 6). A relatively small number of surveys (61) were completed in Spanish, so additional caution is advised in drawing conclusions from these data. Respondents completing surveys in Spanish most commonly selected more frequent service as a top priority, followed by expanded weekend service and service in both directions.

Figure 6: Priorities for Respondents Completing English vs. Spanish Surveys

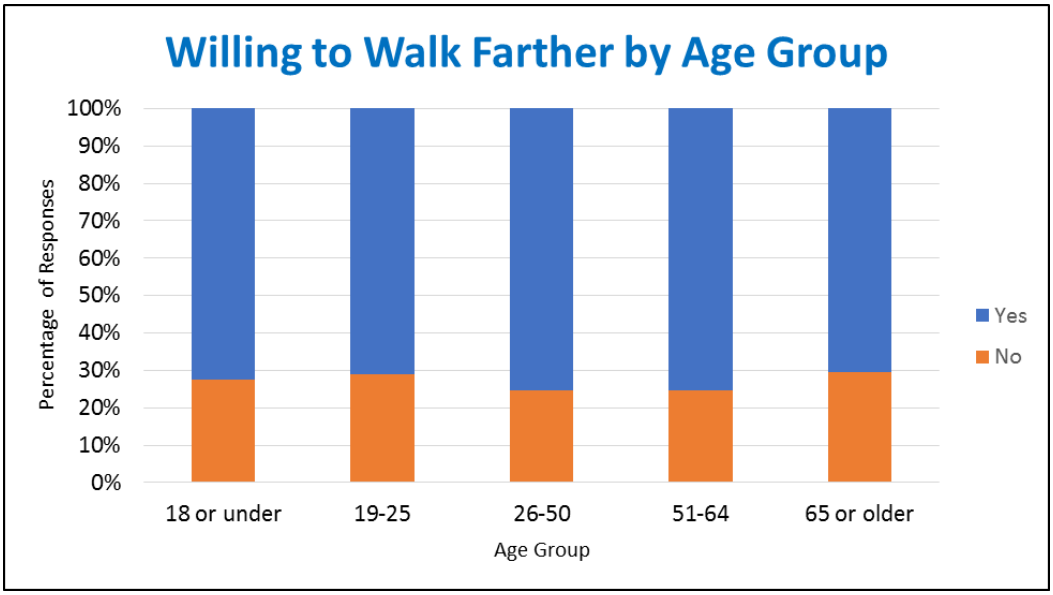


Trade-offs

Questions intended to assess respondents' preferences in regard to key trade-offs in transit service planning were also included in the survey.

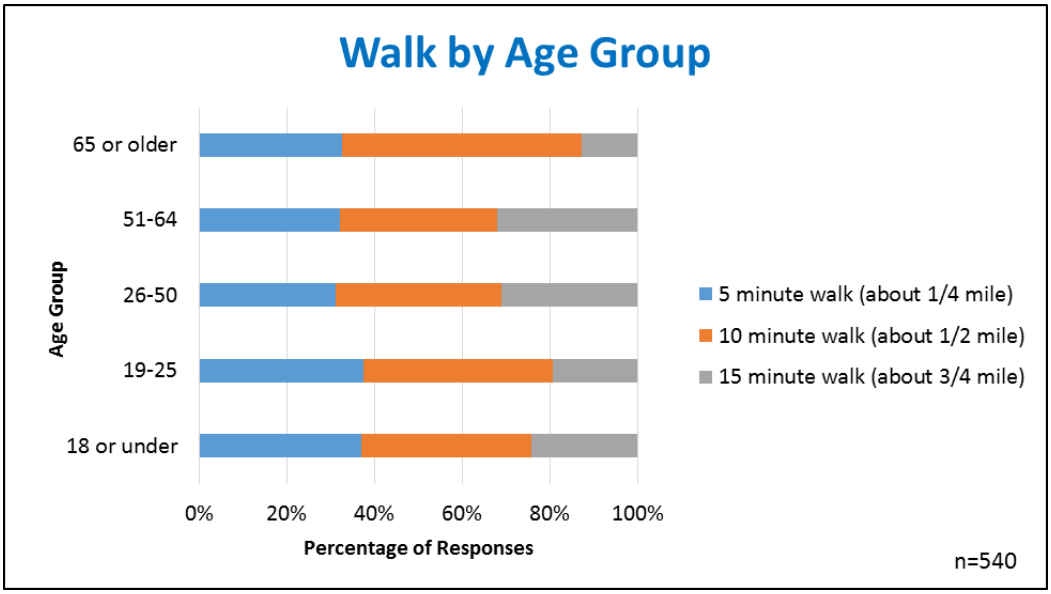
Respondents were asked if they would be willing to walk farther from their house to a bus stop if the bus came more often or was faster or more direct. Overall, 74% of respondents said they would be willing to walk farther, with 26% stating they were unwilling to walk farther. There was slight variation in responses by age group (Figure 7), with closer to 30% of older adults (age 65 and older) stating they were unwilling to walk farther to more frequent or direct service, and approximately 75% of 26-64 year olds stating they would walk farther.

Figure 7: Willingness to Walk Farther to Faster/More Frequent Transit by Age Group



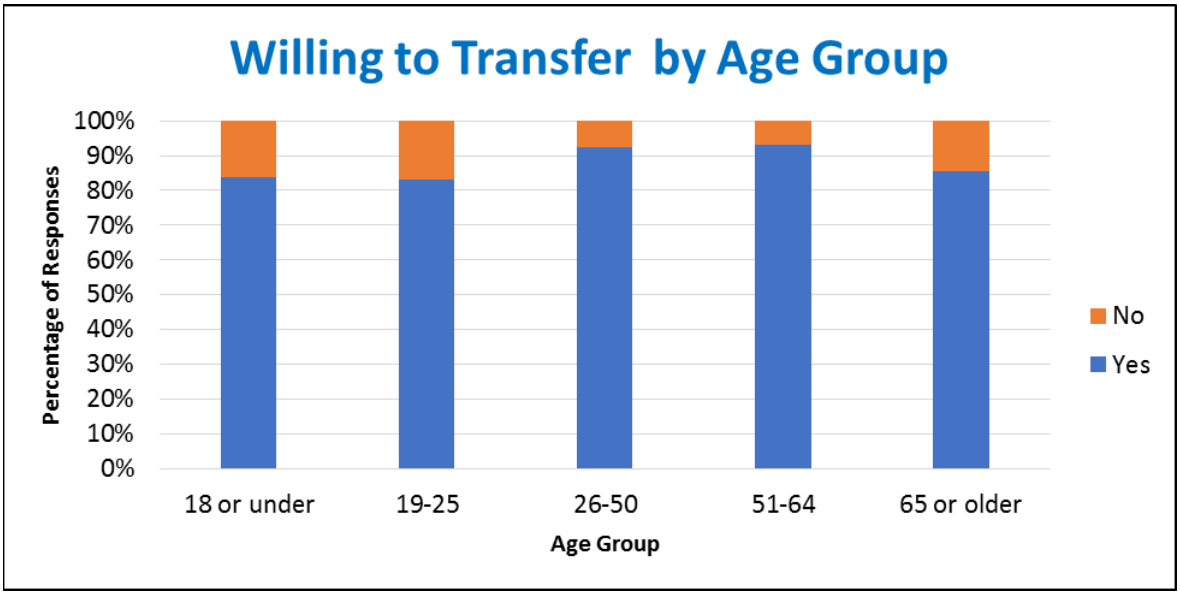
Respondents who stated they would be willing to walk farther from their house to a bus stop if the bus was faster or more frequent were asked a follow-up question to gauge how far they would be willing to walk: 5 minutes (about ¼ mile), 10 minutes (about ½ mile), or 15 minutes (about ¾ mile). Overall, 41% of respondents report they would walk 10 minutes, with 34% stating they would only be willing to walk 5 minutes, and 26% stating they would be willing to walk 15 minutes. Responses varied by age group, as shown in Figure 8. A small proportion of older adults were willing to walk 15 minutes, but more than half were willing to walk up to 10 minutes.

Figure 8: Maximum Walk Distances by Age Group



Respondents were also asked if they would be willing to transfer from one route to another if they could get to their destination more quickly. Overall, 89% of respondents said they would be willing to transfer. Willingness to transfer did vary to some extent by age, with respondents between the ages of 26 and 64 being more willing to transfer, and older adults and youth being less willing to transfer (Figure 9).

Figure 9: Willingness to Transfer if Rider Could Get to Destination More Quickly



How These Survey Results Will Be Used

The results of this survey will be used in combination with other forms of public feedback to guide development of service scenarios that will be brought to the public for additional feedback in the fall of 2015. Transit Division staff recognize the limitations of a non-scientific survey in gauging community-wide preferences. Transit Division staff also recognize that some preferences stated in a survey response (e.g., for the trade-off questions related to walking distance and transfers) may not hold when an individual is faced with a change to his or her transit service. For this reason, these survey results are to be taken in the context of the range of public feedback received in Phase I, and will be used to develop scenarios that will have additional vetting with the public during Phase II of the project.

3) Public Comment

The public provided a total of 339 comments using the online comment form on the Reimagining CityBus website, via the open-ended comment field in the Priorities and Trade-offs Survey, and by talking with staff and City Council members at outreach events. All comments were entered into a database, and staff reviewed and categorized each comment received. Comment categories were then grouped into a larger category for service-related comments and a category encompassing all other types of comments. Tables 1 and 2 provide the breakdown of the comments by category and a short summary of the key themes within each category. The categories with the highest number of comments were Span of Service (with comments related to weekday and weekend service combined), Frequency, and Fares/Costs (with the majority of comments supporting free or further reduced fares for students).

Table 1: Service-Related Comments

Comment Category	Number of Comments	Summary of Comments
Frequency	43	About one-third of comments route-specific (most relate to routes that had frequency reductions in 2012); remainder are general comments with a cluster of comments calling for increased weekend frequencies and concentrating frequency improvements on major arterials such as Santa Rosa Avenue, Mendocino Avenue, and Sebastopol Road.
Weekday/evening span of service	28	Most comments specific to later service in the evening
Weekend span of service	20	Longer span on Saturday and Sunday with specific requests for earlier and later service on both Saturday and Sunday, as well as Sunday service on Routes 1 and 15
Route alignment	24	More direct, faster service; crosstown service that does not go through Transit Mall; focusing on major arterials and connections between them; SMART connections
Destination requests	16	Kaiser Stein campus, Bellevue and Moorland, farther south on Santa Rosa Avenue, Sutter Medical Center, various destinations outside and on outskirts of Santa Rosa, wider coverage within Santa Rosa
Stop locations	12	Various requests for new bus stops in areas already served
Transfers	11	Reduce time it takes to transfer, better synchronization between routes
Reliability/on-time performance	6	General comments about need for improved reliability
Timeliness/speed	6	General comments about need to reduce travel times on CityBus routes
New service types	5	Suggestions for new service types, such as quadrant-focused services, school loops, jitneys/vans for lower density areas
Inter-operator transfers	4	Improve connections with Sonoma County Transit, Golden Gate Transit, and (in future) SMART
Total	**175**	

Table 2: Comments Related to Other Issues/Needs

Comment Category	Number of Comments	Summary of Comments
Fares/costs	41	Majority of comments call for free or further discounted fares for students of all ages, with additional requests for deeper discounts or free fares for seniors, people with disabilities, and veterans. A small number of comments addressed the transfer period, fare-free transit for all riders, or other aspects of fare policy and pricing.
Commendations	21	Commendations for CityBus drivers, overall service
Driver courtesy/customer service	16	Comments about need for improved customer service or relating specific incidents
Education/information	11	Various suggestions for expanding/improving public information and rider education
Vehicles	9	Various comments regarding bus design, age, and amenities
Facilities	8	Suggestions related to Transit Mall and bus stop amenities, concerns about smoking
Safety	7	Various safety-related comments
Fare payment	6	Comments primarily relate to CityBus adopting Clipper Card
Other	45	Wide range of comments, clarifications, and observations as well as small number of comments about specific issues (e.g., holiday service, wi-fi on buses).
Total	**164**	

Appendix A:

Public Feedback from 2012 Short Range Transit Plan Process

Note: The below is an excerpt from documentation of public feedback received during outreach for the 2012 Short Range Transit Plan. While the focus of that outreach was to solicit comment on short-term proposals for service reductions, a fare increase, and transfer policy changes, many comments were received about route restructuring or other issues that are relevant to the Reimagining CityBus effort.

Comments on Routes

Many comments were received about the connection between Route 10 and Route 11 at Coddingtown, and a schedule mismatch that leads to missed transfers. There was widespread support for the concept of interlining Route 10 with Route 11. *(Note: This change was subsequently made.)*

Many comments were received about the need for a more direct connection between Coddingtown and Kaiser (and Vista Family Health on Round Barn) and between the Santa Rosa Junior College/Mendocino Avenue and Coddingtown. Suggestions offered by commenters included Route 14 serving Coddingtown and bi-directional service on Route 10.

Many attendees asked if CityBus will serve the new Sutter Hospital campus at Mark West Springs Road, as well as the Kaiser medical buildings on Old Redwood Highway. One meeting attendee asked if Santa Rosa Paratransit will serve the new Sutter Hospital. Two commenters asked what the future service plan will be for Route 1 once Sutter is relocated.

Several comments were received about long travel times on one-way loops, particularly for passengers traveling across town (e.g., from Rincon Valley to Kaiser). Support for bi-directional service was high, with specific examples including westbound service on West College and bi-directional service on Route 10.

Several interlining suggestions were made, including interlining Route 9 and Route 1, and interlining Route 2 with Route 3 or 6 to facilitate crosstown trips to the new Senior Center at Finley Community Center.

Three comments related to route restructuring were received, including a suggestion to combine Routes 18 and 19, a suggestion to make Routes 4 and 7 into a neighborhood circulator that starts at Montgomery Village, and a proposal for a full redesign of the CityBus system.

Comments on Service Expansion/Reallocation of Hours

During the May 2012 public meetings in particular, there was considerable discussion of the future of the CityBus system, and how coverage goals should be balanced with goals for increasing span and frequency of service. In general, there was support for the concept of reallocating service from lower to higher-performing routes. There was a high level of support for moving away from one-way loops toward more bi-directional service. Implementation of an

alternate service model, such as on-demand service for lower productivity areas, was also discussed by meeting attendees. A comment was also made about addressing overlapping service on Routes 5 and 18, and Routes 4 and 7.

There were many comments about the need for extended service on Sundays, particularly in the morning hours for those traveling to religious services and to work. Comments also related to the need for all routes to operate seven days each week, and for 30 minute service to be provided on weekends.

There were also many comments related to later evening service, with requests to extend service by one to two hours (i.e., to 9:00-10:00pm) to accommodate those working in retail jobs, taking classes at the Junior College, and attending City Council meetings or other activities. The need for later paratransit service was also cited.

Other suggestions for service expansion or reallocation included:

- More service at school bell times, especially on Routes 9 and 11 and on Mendocino Avenue
- Additional frequency in peak commute hours, more frequent service for routes that have hourly service, and more frequent service to food stores and pharmacies
- Increased frequency on Route 9
- Holiday service for religious services and shopping
- Service to Kaiser medical buildings on Old Redwood Highway, and to the new Sutter Hospital at Mark West Springs Road
- Early bird (4:00am) and late (10:00pm) runs to meet Golden Gate Transit trips for commuters to San Francisco

Comments on Coordination With Other Operators

Many meeting attendees and commenters supported continued efforts to better coordinate and integrate the operations of Sonoma County bus transit operators (particularly CityBus and Sonoma County Transit, but also Golden Gate Transit and Petaluma Transit), and plan for coordination with SMART in the future. One commenter called for a summit of all the operators to examine problems and issues, areas of service duplication, and new ways for operators to work together. A topic of interest to one rider was examination of current practices related to bus stops shared by CityBus and Sonoma County Transit that can cause confusion for passengers. Several comments and questions related specifically to SMART, and how the SRTP will address bus service to the SMART stations in Santa Rosa. It was also suggested that the Transit Mall be expanded to accommodate Greyhound and Airport Express buses.

Summary of Feedback on Reimagining CityBus Service Scenarios

January 2016

Note: These summaries have been compiled from comments received by the Transit Division, collected at public meetings and outreach events, and included in survey responses. Please note that because this is a summary document intended to highlight the most common feedback, individual comments may not be reflected. However, all comments have been reviewed and taken into consideration by Transit Division staff.

Route 1. Overall, the response to the new Route 1 was very positive, with people citing the directness of the route, its 15 minute frequency, and connections to Kaiser and Coddingtown as major improvements. A large number of comments (22) was received regarding loss of Route 1 service to the mental health services on Chanate Road, and an additional 11 comments were received about loss of Route 1 service to Keysight, Varenna, and Parker Hill Road destinations. A small number of comments was received about the gap in service on Mendocino between Fountaingrove and Bicentennial that would affect access to Journey's End, one Kaiser bus stop, and Fountaingrove Cardiology.

Route 2. Most commenters expressed support for the proposed Route 2 given that it results in an increase in frequency on Summerfield, Bethards, and Yulupa. While a small number of comments were received, there appeared to be a preference for the Route 2 alignment that uses Sonoma Avenue to travel to and from downtown (Scenario A). Commenters expressed support for preserving good access to the Southeast Greenway, SAY Dream Center, and Howard Park/Spring Lake Park. Four comments were received expressing concern about the loss of coverage on Hoen between Franquette and Yulupa, citing the need for service to Grosman Apartments.

Route 3. Most commenters expressed support for the shorter and more direct service on Route 3. Concerns were raised regarding bell-time access to Santa Rosa Middle School for students from the West 9th and West College neighborhoods.

Route 4A/4B. Most commenters expressed support for the proposed consolidation of the current routes 4 and 7 to provide 30 minute, bi-directional service between downtown Santa Rosa and Mission at Highway 12. However, responses were split in terms of which alignment in and out of the downtown area was preferred (4th Street or Sonoma Avenue). Two comments were received about losing coverage on Highway 12 between Mission and Farmer's Lane (the

bus stop on Highway 12 near Brush Creek currently has hourly service in one direction that would be lost as a result of the proposed consolidation of routes). One commenter expressed concern over loss of the direct link between Rincon Valley and the SRJC on the current Route 4. This link would be replaced by the proposed Route 7, which would require a transfer at Montgomery Village or downtown for Rincon Valley passengers.

Route 5. A small number of comments was received regarding Route 5. Most comments expressed support for the more direct service between downtown and destinations on Santa Rosa Avenue and Petaluma Hill Road, and the combined 15 minute frequency to and from the Santa Rosa Plaza area resulting from staggering the Route 5 and Route 19 schedules. However, some commenters felt that maintaining access to the Fairgrounds, Veterans Building, and Park and Ride on Route 5 was needed (these destinations would be served by Route 18 only under the service proposals developed).

Route 6. A large number of comments (31) were received about the proposed Route 6. The comments were split between enthusiastic support for the proposed combination of the current Route 11 and Route 6 to provide 30-minute, bidirectional service serving both Coddingtown and the Transit Mall, and concerns primarily regarding the loss of the current Route 11 segment on Guerneville Road between Marlow and Fulton, and secondarily, loss of the current Route 6 segment on West College between Marlow and Fulton.

Route 7. Most commenters enthusiastically supported this proposed crosstown route connecting Montgomery Village with the SRJC and terminating at either Coddingtown or the Westside Transfer Center. Two alignments were presented, with most commenters supporting the alignment that included Pacific Avenue, though a few commenters preferred the Montgomery/College Avenue alignment that provided more direct service to Memorial Hospital and Silvercrest senior housing. One commenter noted that replacing the connection to the SRJC on the current Route 4 with the new Route 7 would cause her to have to transfer in Montgomery Village or downtown to get to work at the SRJC from Rincon Valley.

Route 8. The proposed Route 2 reflects merging the current Route 2 and Route 8 services. Comments are included under Route 2.

Route 9. All commenters expressed a preference for the Scenario B alignment, with splits Route 9 into two routes providing more direct access to destinations in southwest Santa Rosa, and provides for 15 minute frequency on Sebastopol Road between downtown and Stony Point Road.

Route 10. Most commenters expressed support for this new route alignment, with a few suggesting minor changes to the proposed alignment. One commenter expressed support for the current Route 10 alignment since it provides a more direct trip downtown via Steele Lane and Mendocino. A couple of comments expressed concern about buses getting stuck in traffic crossing Highway 101 at Fountaingrove.

Route 11. In the Service Scenarios, the current Route 11 and Route 6 were merged. Comments on Route 11 are included under Route 6.

Route 12. A small number of comments were received, with commenters split between serving Southwest Community Park all day or eliminating that deviation (or deviating to the park just at bell times to provide better access to Elsie Allen High School). Two people expressed support for the elimination of the Delport/McMinn deviation.

Route 14. In the Service Scenarios, the current Route 14 was merged into the proposed Route 1 and Route 10. Comments are included under Route 1 and Route 10.

Route 15. Of the two scenarios presented for Route 15, most commenters preferred the alignment connecting Southwest Santa Rosa to Santa Rosa Avenue via Hearn Avenue (Scenario B), particularly in light of the proposal to keep Route 19 service on Santa Rosa Avenue. However, some of the commenters supporting this link also expressed concern about the loss of all-day coverage on Dutton Meadow, Bellevue, and Stony Point south of Hearn Avenue. Those expressing concerns about this lost coverage included Burbank Housing, which cited current and pending affordable housing developments on Dutton Meadow.

Route 17. In the Service Scenarios, the current Route 17 was merged into proposed Routes 1, 3, and 10. Coverage on the segment of North Dutton between College Avenue and Guerneville Road was not retained in the Service Scenarios. Four commenters requested that service be restored on this segment of North Dutton. While the area would still be served by bus routes on Guerneville Road and College Avenue, commenters cited the longer walks that would be required to reach routes bound for Coddingtown and downtown Santa Rosa. The Santa Rosa Community Health Centers have plans to open a new clinic along this stretch of North Dutton and has asked that the City consider options for continuing to serve this location directly.

Route 18. Most commenters expressed support for the Scenario B alignment serving Montgomery Village via Farmer's Lane. Three commenters preferred the Scenario A alignment on Hoen and Yulupa because it provided coverage on the section of Hoen between Franquette and Yulupa that is currently served by Route 2. Two senior residences would no longer be served by Route 18 under the proposed alignments. At Vintage Park, a preference was expressed for retaining service to the front door bus stop on Colgan Avenue, but residents requested that at a minimum the pedestrian connection to Santa Rosa Avenue be improved and that additional amenities be provided at the Santa Rosa Avenue bus stops. At Silvercrest, some residents expressed support for retaining the current Route 18 service; however, others felt that service on the proposed Route 4A/4B or Route 2 would meet their needs for travel to destinations on 4th Street, Montgomery Village, and downtown Santa Rosa.

Route 19. Strong support was expressed for the proposed direct alignment of Route 19 service on Santa Rosa Avenue, with several commenters requesting that the extension of Route 19 to Todd Road shown in Scenario C be implemented right away.