Pinellas Suncoast Transit Authority

COMMUNITY BUS PLAN
CONCEPTS REPORT

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1 Introduction

What is the Community Bus Plan?

The Pinellas Suncoast Transit Authority (PSTA) is the public transit provider for Pinellas County, a growing and dense county of nearly 1 million people over 274 square miles. The county expects to add 93,000 people and 60,000 jobs over the next 25 years. ***Advantage Pinellas***, the long-range transportation plan for the county, recognizes that the growth and development patterns for Pinellas County will change in the coming years.

A *Community* Bus Plan

The **PSTA Community Bus Plan** is a review of the purpose and performance of PSTA's bus network to plan for improvements to the network over the next 10 years. This is a collaborative planning effort among PSTA, its municipal partners, Forward Pinellas, transit stakeholders and members of the community to decide the goals and purposes of PSTA's investment in public transit. This will inform future decisions about where bus routes go, at what times they run, and how frequently. Input from riders and the public will be critical to making some major choices along the way.

The Community Bus Plan will include:

- Assess the existing transit network and the geometry of the county today.
- Consultation of residents, workers, transit riders and advocates about how PSTA should make choices and prioritize service.
- Planning for potential future growth of the PSTA transit network.
- Guidance for municipal and other partners about how development, street management and growth can be shaped so that transit is less costly to operate and more successful.

"Building more roads and wider highways is not in our long-term future. A better fit for our urban character: more walkable places, with housing near jobs, commercial areas, educational opportunities and choices for getting around our county and region. . . . It's imperative that we continue developing a transportation network with efficient transit options to have a fully functioning system, both locally and regionally."

Advantage Pinellas

Figure 1: A PSTA bus on 4th Street North headed towards Gateway Mall.

What is a Concepts Report?

Using feedback from the public and the assessment of the existing system in the Choices Report, the study team has developed two different Concepts of what transit in Pinellas County could look like. This report describes those two Concepts, their outcomes, and the goals that underly their design. The two Concepts differ in the degree to which they emphasize different goals for transit. These Concepts represent a spectrum of possibilities and they are not intended to be an either/or proposition. By showing the public, stakeholders, and decision makers the range of possibilities, PSTA is asking the public to give an informed response about how they would balance these two goals.

How to Use This Report

This Concepts Report shows two different ways that transit could be designed for PSTA in the future. To assess those Concepts and how they fit your goals for transit, we suggest that you take the following steps in reading this report:

- Read and consider the goals for transit in the next section, and the trade-offs between different goals described in the Choices Report.
- Look at the detailed network maps starting on page 12. Find the places you care about, and notice which routes go by there. Note the colors of the routes, which represent their frequencies. Note where else those routes go.
- Note that the bus route numbers in these Concepts are sometimes different from the existing numbering! Do not simply look for your route by its current number, or you risk overlooking an improved route near you, with a different number.
- The frequencies and spans of every route in each Concept are shown in the tables starting on page 15. This is where you can see if the route(s) you would care about run when you would want them to and at what frequencies.
- If you care about proximity to transit, look at the charts beginning on page 21, which show how many people and jobs are near any transit service, and near frequent service.
- For a more vivid demonstration of how the two Concepts would affect travel times, look at the "isochrones" (access areas) for people starting on page 24.

Conflicting Goals of Ridership and Coverage

Ridership and coverage goals conflict. Within a fixed budget, if a transit agency wants to do more of one, it must do less of the other.

Consider the fictional city on the right. The little dots indicate dwellings, commercial buildings and other land uses. The lines indicate roads. As in many neighborhoods, most activity is concentrated around a few roads.

A transit agency pursuing only ridership would run all its service on the main streets, since many people are nearby, and buses can run direct routes. A high ridership network allocates frequent service to areas with favorable urban development patterns, forming a connected network. This would result in a network like the one at bottom-left.

If the transit agency were pursuing only coverage, it would spread out so that every street had some service, as in the network at bottom-right. All routes would then be infrequent, even on the main roads.

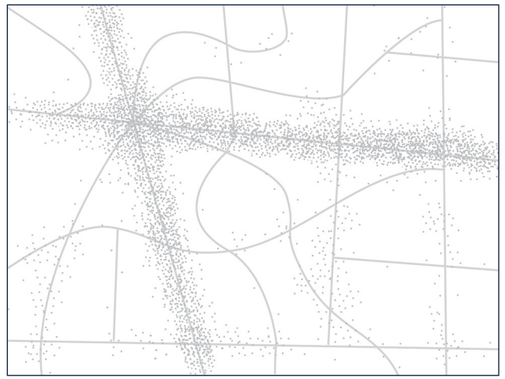
These two scenarios require the same number of buses and cost the same amount to operate, but deliver very different outcomes. To run buses at higher frequency on the main roads, neighborhood streets will receive less coverage, and vice versa.

The choice between maximizing ridership and maximizing coverage is not binary. All transit agencies spend some portion of their budget pursuing each type of goal. Transit agencies are often accused of failing to maximize ridership, as if that were their only goal. In fact, agencies are often intentionally operating "coverage services" that are not expected to generate high ridership. Agencies must balance the competing goals of high ridership and coverage. The balance they choose depends on the values of the community.

A particularly clear way for regions and transit agencies to set a policy balancing ridership and coverage goals is to decide what percentage of their service budget should be spent in pursuit of each.

The Concepts in this report help to highlight the difference in a more coverage-oriented network for Pinellas County and more ridership-oriented network. Public, stakeholder, and decision-makers will have a chance to respond to these Concepts. And the answers they provide will guide the project team in developing the final plan around the desired balance between these opposing goals.

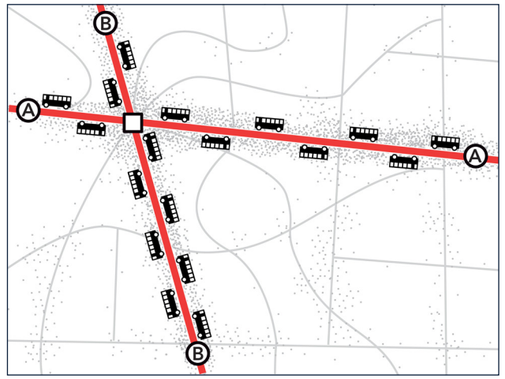
The choice between pursuing ridership and coverage is not binary. It's a sliding scale. Every transit agency spends some portion of its budget on both types of goals.



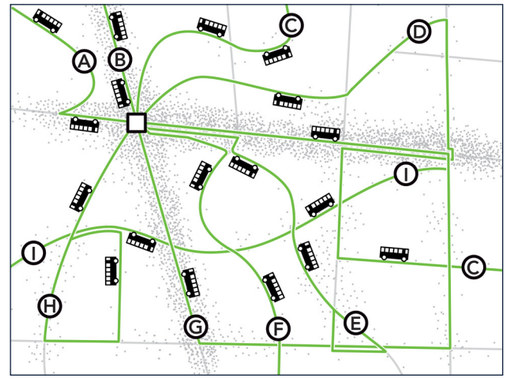
Imagine you are the transit planner for this fictional neighborhood. The dots scattered around the map are people and jobs.

The 18 buses below are the resources the town has to run transit

Before you can plan transit routes, you must first decide: What is the purpose of your transit system?



All 18 buses are focused on the busiest streets. Waits for service are short but walks to service are longer for people in less populated areas. Frequency and ridership are high but some places have no service.



The 18 buses are spread around so that there is a route on every street. Everyone lives near a stop but every route is infrequent, so waits for service are long. Only a few people can bear to wait so long, so ridership is low.

Figure 2: Ridership and coverage goals, while both laudable, are in direct conflict within a fixed budget.

Phase 1 Public Engagement

In the first round of engagement for the Community Bus Plan, or "Choices" phase, the project team asked the public and community stakeholders about their values and priorities for transit, and how they might balance certain trade-offs related to transit service in Pinellas County.

During this first of three phases of engagement, the study team held:

- a stakeholder workshop;
- three public meetings;
- over 15 community pop-up events across the county; and
- employee in-reach focus groups;
- extensive social media outreach; and
- digital outreach via the project website.

Throughout these outreach efforts, a Choices Survey was available online and on paper. The following summarizes some of the key takeaways from the survey.

Transit Benefits

The first survey question asked respondents to prioritize seven benefits of transit. The top four responses (in order) were:

- Providing access for people without cars or with low incomes
- Providing basic transit for as many people as possible
- Allowing people to move without increasing auto congestion
- Improving access to jobs and service for large numbers of people

The first and second statements correlate to coverage goals. The third and fourth statements relate to the benefits of ridership-focused networks. This suggests a preference towards coverage goals.

Coverage versus Ridership

The next question asked if respondents preferred a transit system that prioritized coverage or ridership and it provided an example of what each network would look like. Figure 4 shows the responses.

Approximately 51% of respondents selected the options that preferred the Coverage Network, but only 13% of respondents preferred or strongly preferred the high-coverage scenario.

Walking Versus Waiting

The third question asked respondents if they would prefer to walk longer and wait less at a bus stop or wait longer but not have to walk as far. Figure 5 shows the responses. Approximately 66% of respondents preferred or strongly preferred the trip with less waiting, even if it meant more walking. This preference correlates to ridership networks, in which routes would run more frequently on major corridors and walks might be longer.

Summary of Results

Survey respondents showed a slight tendency to favor coverage network characteristics over ridership networks on most of the questions asked. Feedback from the public survey strongly correlated with that of the stakeholder group. This input has helped to shape the Concepts and will inform future policy decisions.

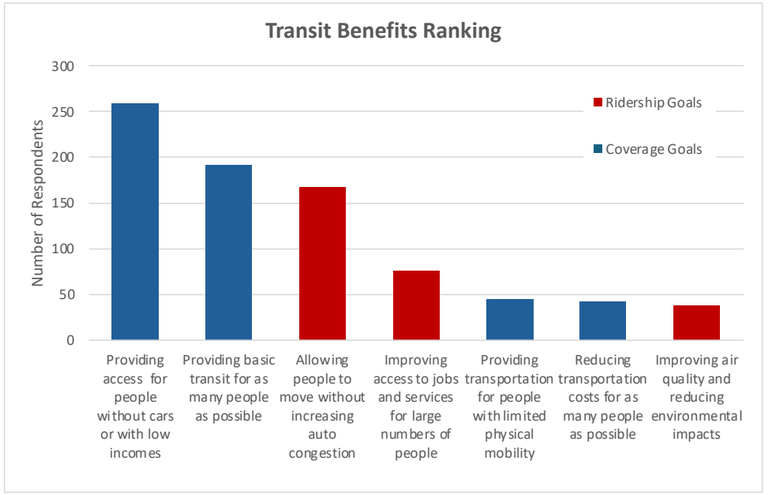


Figure 3: Survey respondents preferred goals associates with coverage.

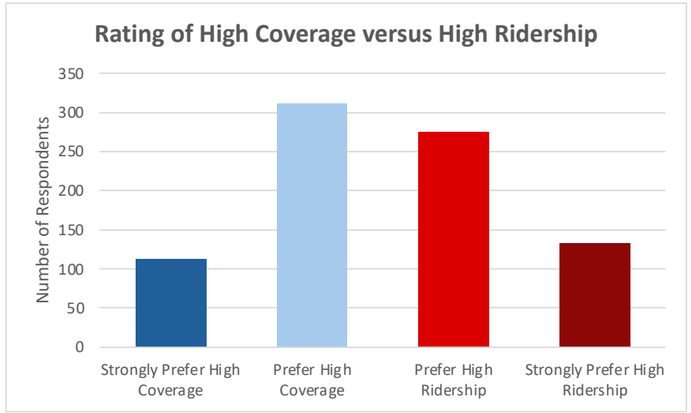


Figure 4: Survey respondents had a slight preference towards a High Coverage Network.

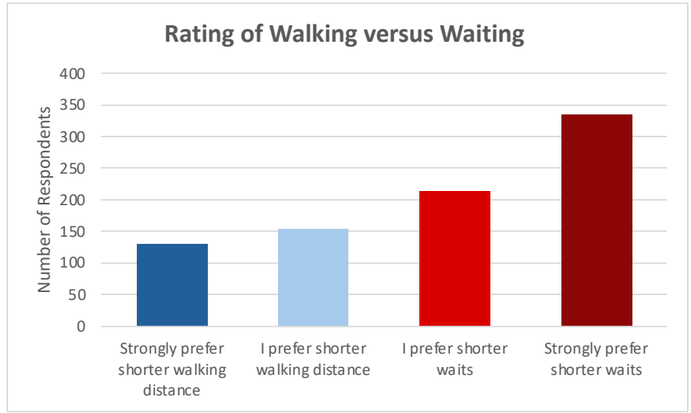


Figure 5: Most survey respondents said they preferred a shorter wait, which correlates with a High Ridership Network.

What are the Concepts

The Coverage and Ridership Concepts and the Existing Network illustrate a spectrum of possibilities for how to design the bus network in Pinellas County. Figure 7 shows that range of possibility ranging from higher coverage to higher ridership.

The Concepts are different from each other in how they emphasize Ridership and Coverage goals. These Concepts represent a spectrum of possibilities, and they are not intended to be an either/or proposition. By showing the public, stakeholders, and decision-makers the range of possibilities, the PSTA is asking: "Now that you see the outcomes of emphasizing on one goal over another, how do you balance the Ridership and Coverage goals? In other words, if you want better service, what is your definition of better?"

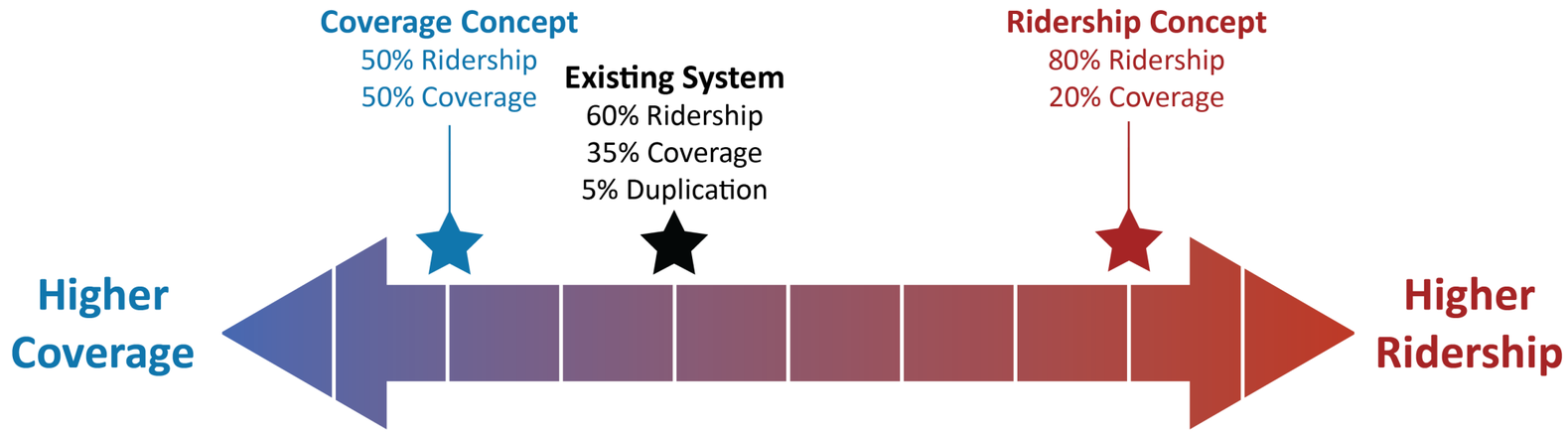
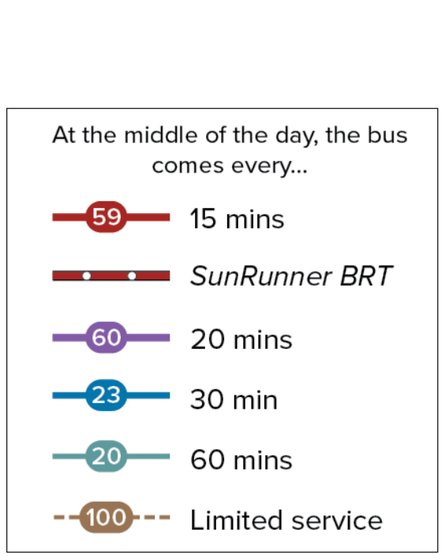


Figure 7: Spectrum of Transit Choices for the PSTA Network. The diagram represent how resources are divided between Ridership goals and Coverage goals/duplication in each scenario.



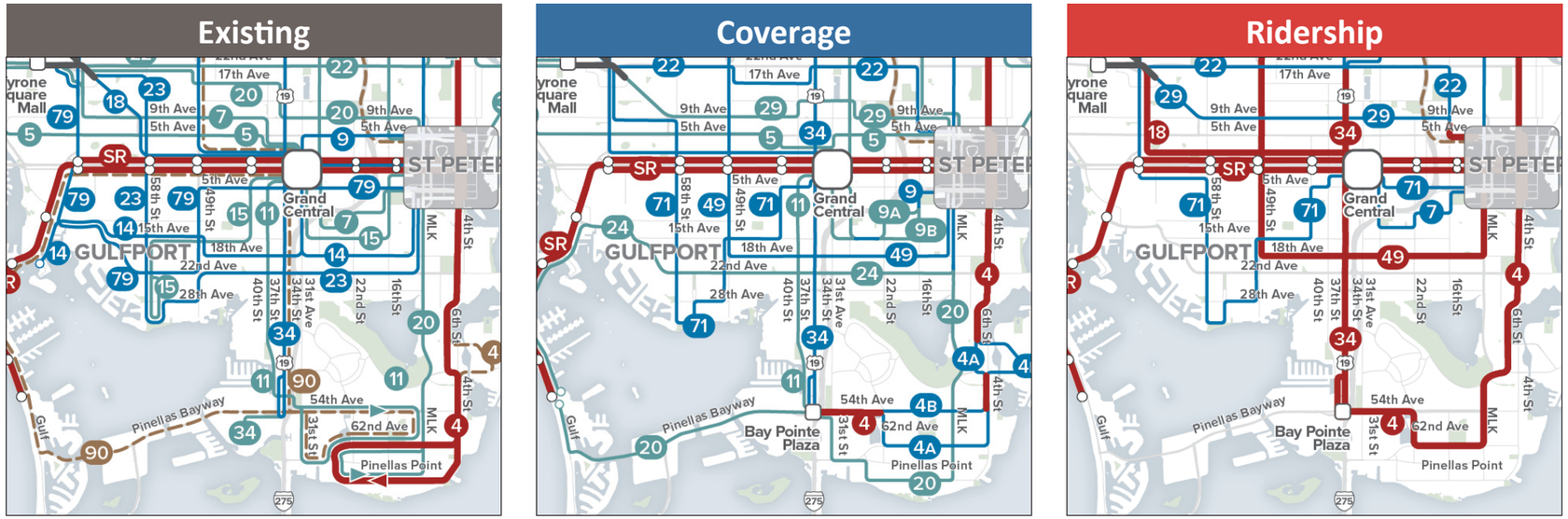


Figure 6: Ridership and coverage goals, while both laudable, are in direct conflict within a fixed budget.

What are the outcomes of each Concept?

The major outcomes of each Concept are described in Chapters 2 and 3, but in general the Concepts change proximity to service and the access provided by transit in the following ways:

Compared to the Existing Network, the Coverage Concept

- Increases the percent of people near transit service from 63% to 65%, but decreases the percent of residents near frequent transit service from 8% to 7%.
- Decreases by 16% the number of jobs the typical resident can reach by transit in 45 minutes.

Compared to the Existing Network, the Ridership Concept

- Decreases the percent of people near transit service from 63% to 48%, but increases the percent of residents near frequent transit service from 8% to 20%.
- Increases by 15% the number of jobs the typical resident can reach by transit in 45 minutes.

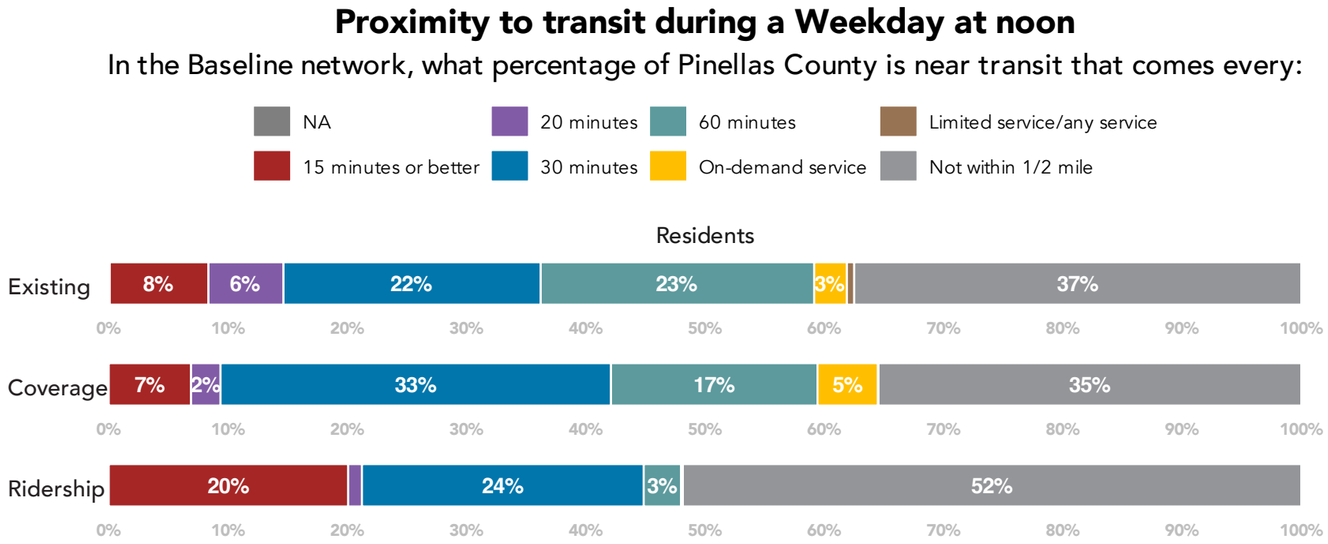


Figure 8: The total number of people near any service is higher in the Coverage Concept, but the number of people and jobs near frequent service is much higher in the Ridership Concept.

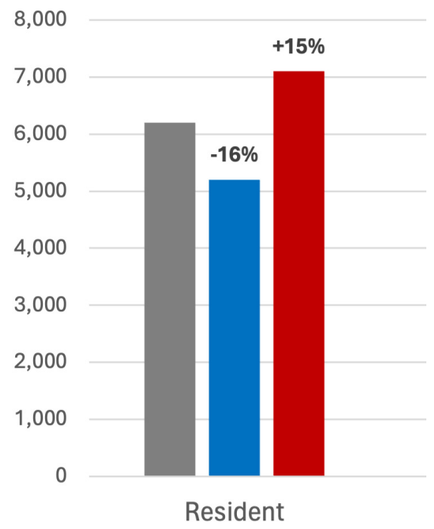


Figure 9: Jobs accessible in 45 minutes by walking and transit by the typical resident in Pinellas County.

In the Coverage Concept,there are 2% more residents near transit service.

In the Ridership Concept, the typical resident can reach 15% more jobs in 45 minutes.

2 Network Concepts

Introduction to Network Concepts

To help the community understand how different goals would result in different network designs, this chapter introduces two Concepts. **Both Concepts have the same amount of service, but they show different ways to allocate these same resources.**

The Concepts differ in the degree to which they emphasize Coverage and Ridership goals. The Coverage Concept puts more resources toward Coverage goals and less towards Ridership goals. The Ridership Concept in this report puts more resources toward Ridership goals and less toward Coverage goals.

The Concepts represent a spectrum of possibilities. When comparing these Concepts and their outcomes, the choice is not "Pick one of these two"; rather, it is "Where on the spectrum of possibilities should the PSTA bus network be?"

As discussed in the Choices Report, the existing system devotes about 60% of its resources toward ridership goals, 35% to coverage goals, and there is about 5% duplication that isn't achieving coverage or ridership. The Coverage Concepts in this report puts 50% of its resources toward ridership and 50% toward coverage goals while the Ridership Concept puts about 80% of its resources toward ridership goals and 20% toward coverage goals.

Concepts, Not Proposals

At this stage, **the study team is not proposing any specific changes** to the network. The public conversation about the Concepts will help guide the development of an actual network proposal.

Some features are common to both Conceptual networks, but even these are not proposals yet. In designing the Concepts, we are highlighting the Ridership-Coverage trade-off, and to do this, we made a single choice about matters that were unrelated to that trade-off. Different choices could be made, and we welcome public comment about these features of the plan.

No Preferred Concept

None of the staff from PSTA, the cities, the county, other partners, nor the consultant staff have any preference among these Concepts, and has no desire to steer the conversation to a particular result.

The most important word to remember is **"if"**. The Ridership Concept shows what might happen **if** PSTA chose to shift toward Ridership goals as the primary goal. The Coverage Concept shows what might happen **if** PSTA chose to provide more network coverage. **No decision has been made yet.**

The Big Picture Matters More than Details

These Concepts have not been refined to the point that they would be ready to implement, because their purpose is to illustrate choices at a higher altitude. A later stage of planning will refine a draft plan, based on public feedback on the Concepts, and at that point all the details will be filled in.

In general, these Concepts are intended to be complete descriptions of the predominant midday pattern of services.

No Additional Budget

This is a budget-neutral bus network reimagining, meaning that both the Ridership and Coverage Concepts assume the same amount of bus service as is provided in the existing network. Specifically, this is quantified in the total service hours. One service hour is one bus operating for one hour on the street.

This does not mean that the study team thinks that this amount of service is adequate or sufficient to meet all the needs and demands of Pinellas County. **Instead, these Concepts help everyone understand what PSTA can afford with its current budget for transit.**

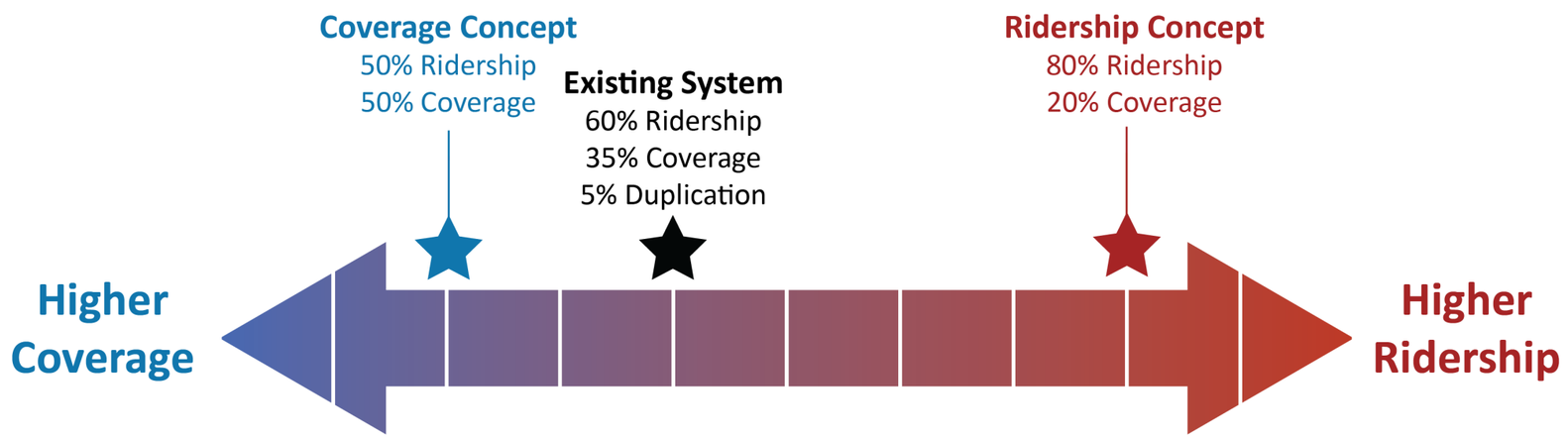


Figure 10: Spectrum of Transit Choices for the PSTA Network. The diagram represent how resources are divided between Ridership goals and Coverage goals/duplication in each scenario.

Existing Network

In transit conversations, there is always a great focus on **WHERE** transit is provided. Sometimes not enough attention is paid to when it is provided. The **WHEN** of transit service is:

- **Frequency** or **headway:** How many minutes are there between each bus? How long of a wait is required?
- **Span** or **duration:** How many hours of the day is service running? Does it run on weekends?

Low frequencies and short spans are one of the main reasons that transit fails to be useful because it means service is simply not there when the customer needs to travel. Frequent service:

- reduces waiting time (and thus overall travel time),
- improves reliability for the customer because if something happens to your bus another one is always coming soon,
- makes transit service more legible by reducing the need to consult a schedule,
- makes transferring (between two frequent services) fast and reliable.

In the network maps, routes are color coded by their frequency during midday on a weekday:

- **Red lines** show where buses arrive every 15 minutes,
- **Purple lines** show where buses arrive every 20 minutes,
- **Blue lines** show where buses arrive every 30 minutes,
- **Green lines** show where buses arrive every 60 minutes,
- **Tan lines** means this route operates very infrequently or during rush hours only, and
- **Yellow zones** are areas where only special on-demand services are provided.

Today, PSTA has three frequent routes that come every 15 minutes: the SunRunner, Route 4, and Route 59. Routes 60 and 74 come every 20 minutes. These five routes are PSTA's most useful routes for people in a hurry. Since these routes come frequently, people don't have to wait a long time to travel along them.

Most of the network has routes that come every 30 or 60 minutes. People that want to travel along these routes might have to wait a long time. Even with apps that provide real-time information, people still have to wait somewhere. A person that clocks in at 9am might need to take an hourly route that will get them to work at 8:20am or 9:20am. If they want to be on time, they will have to wait 40 minutes at work before their shift starts.

PSTA provides some services that only operate a few times throughout the day. This includes intercounty routes like Routes 100X and 300X and some peak-only services like Routes 66 and 90.

There is also an on-demand service provided in Safety Harbor. People traveling in this zone can request a ride to and from specific stops in the zone, which includes Northwood Plaza and Countryside Mall where they can connect to other PSTA services.

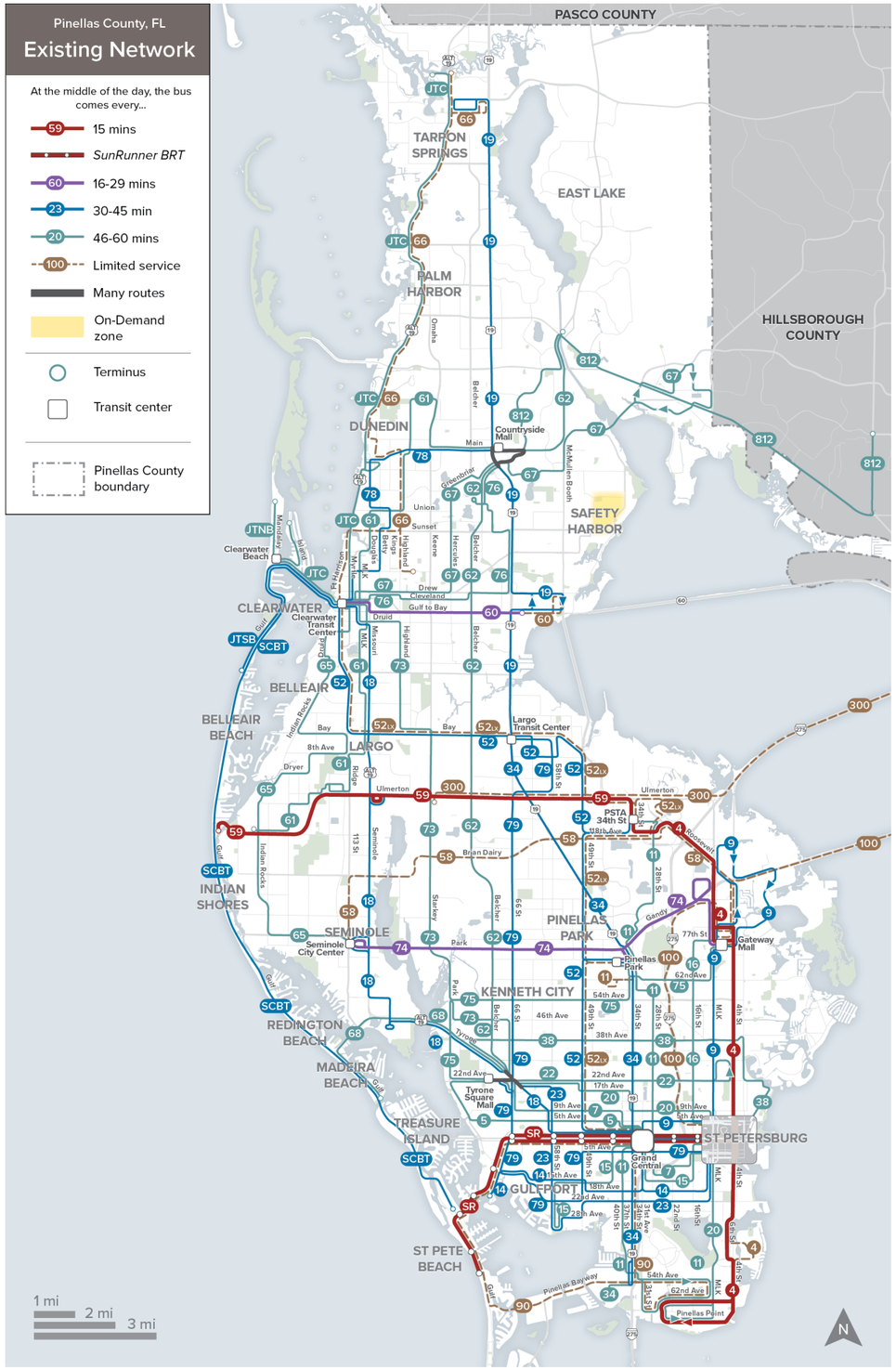


Figure 11: PSTA Transit service in Spring 2024.

Coverage Network

In the Coverage Concept, all areas served today would still be served by transit, but this means service is spread thinly. The Coverage Concept is designed to provide a greater coverage level from the Existing Network.

The map on the right is meant to provide a high-level view of service available across the county and overall design of the network, rather than minor routing details.

To explore this network and its relevance to your life, you can:

1. Find a place you care about on the map using the labeled streets.
2. Note which routes are nearby, by number and by color.
3. Look at the legend to learn weekday frequencies of these routes.
4. See where else the routes go. They may go farther than your routes do today. Changing line colors does not mean riders would have to change buses.

Other information about the Concepts that you may want to review:

- The tables starting on page 14 shows each route's frequencies, how they change throughout the day, during what hours each route operates, and whether a route runs on the weekend.
- The charts starting on page 22 show the number of residents and jobs served by frequent service and by any service in this Concept.
- Maps illustrating how people's travel time would change from various locations around the county compared to the Existing Network, starting on page 24.

To cover new areas, the Coverage Concept includes four on-demand zones. Within these on-demand zones, people would be able to request a ride to and from specific locations like the current on-demand service in Safety Harbor.

- Safety Harbor (larger zone than today)
- Largo (west of US Alt 19 and north of Ulmerton Road)
- Dunedin (north of Sunset Point Rd)
- Clearwater (south of Sunset Point Rd)

To cover more places with consistent service all day, some places that have limited service today have a route arriving every 60 minutes in the Coverage Concept. This includes service on Brian Dairy Rd connecting to Seminole and service on the Pinellas Bayway connecting to the end of the SunRunner in St Pete Beach.

To expand coverage to these new places, duplicative services were removed and some frequencies were reduced. This includes the frequencies on:

- Ulmerton Rd (from 15 to 30 minutes)
- Gulf to Bay Blvd (from 20 to 30 minutes)
- Park Blvd (from 20 to 30 minutes)

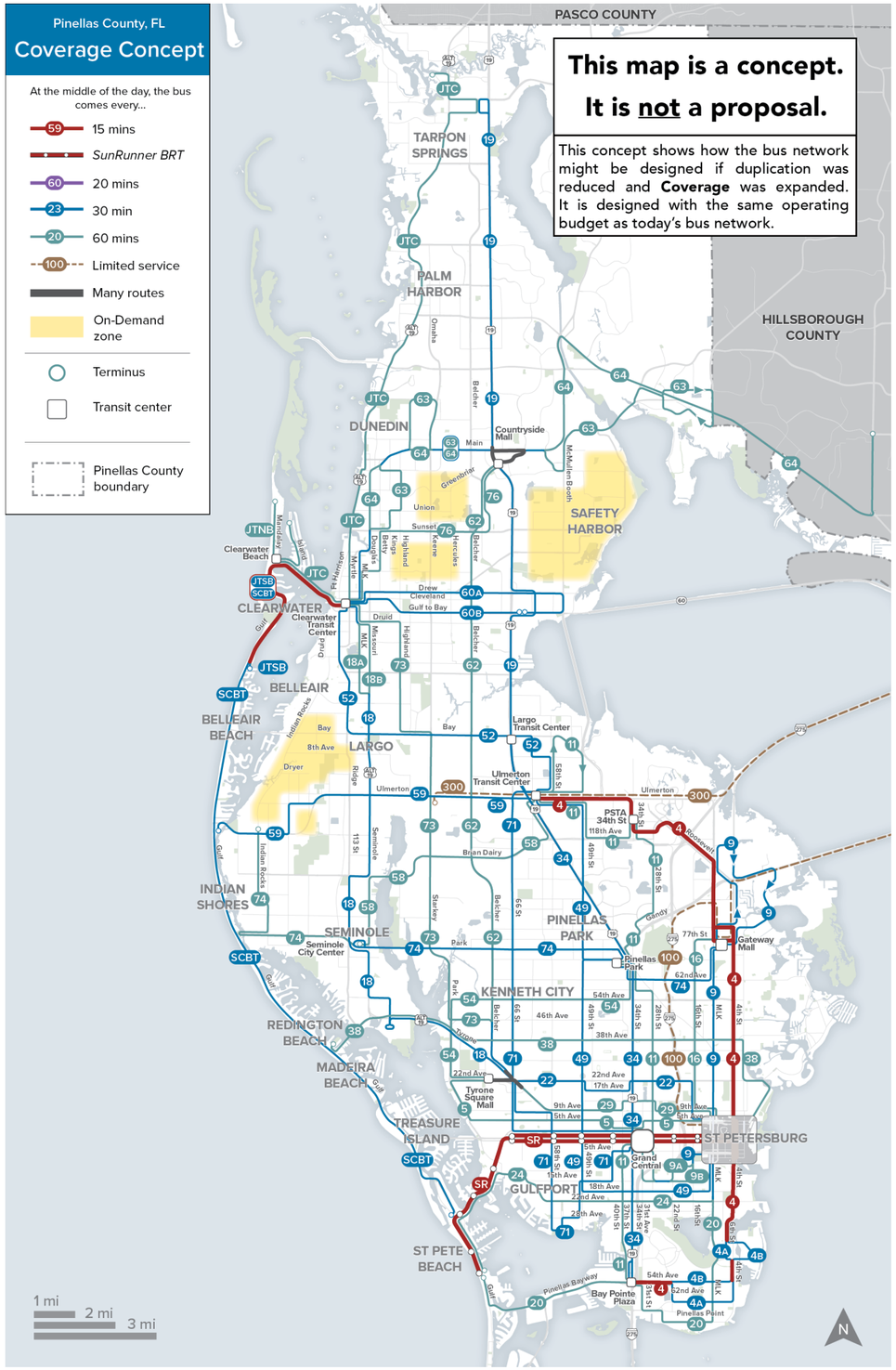


Figure 12: The Coverage Concept.

Ridership Network

The Ridership Concept, shown on the right, concentrates more frequent service where there are more people, jobs, and opportunities. This dramatically increases how many useful destinations an average resident can reach in a given amount of time, which is the key to increasing ridership. Concentrating service into fewer but more frequent routes means that some lower-demand areas would be a longer walk from transit service, or not have service at all, in this Concept.

Whereas the Existing Network only has three routes that come every 15 minutes, this Concept concentrates frequent service in more dense and active corridors, including:

- 34th St,
- 49th St,
- 18th Ave South,
- US Alt 19,
- Gulf to Bay Blvd, and on
- Gulf Blvd by Clearwater Beach.

It also provides 30-minute service on corridors that have less frequency today, like

- Drew St,
- 38th Ave to Madeira Beach, and
- 9th Ave North.

The cost of these investments in service is that some areas would lose service. For example, the Ridership Concept provides no service to areas along

- Belcher Rd,
- Starkey Rd,
- Brian Dairy Rd, and
- Indian Rocks Rd.

The map on the right is not meant to be specific about the details. Instead, it is meant to provide a high level view of the overall picture of frequent and infrequent service available across Pinellas County and the overall design of the network.

The project team is certain that, were the Ridership Concept to be implemented, it would get higher ridership than the Coverage Concept. Why are we so certain?

- Repeated, wide-scale research has shown that higher frequencies and longer spans of service are correlated with major increases in ridership.
- People choose transit if it is workable given their destination and their time constraints. The outcomes in Chapter 3 show that this network gets many more jobs within a reasonable travel time for the typical resident than the existing network or the Coverage Concept. **Making more destinations accessible within less time for a large number of people is a straightforward way to attract more riders.**

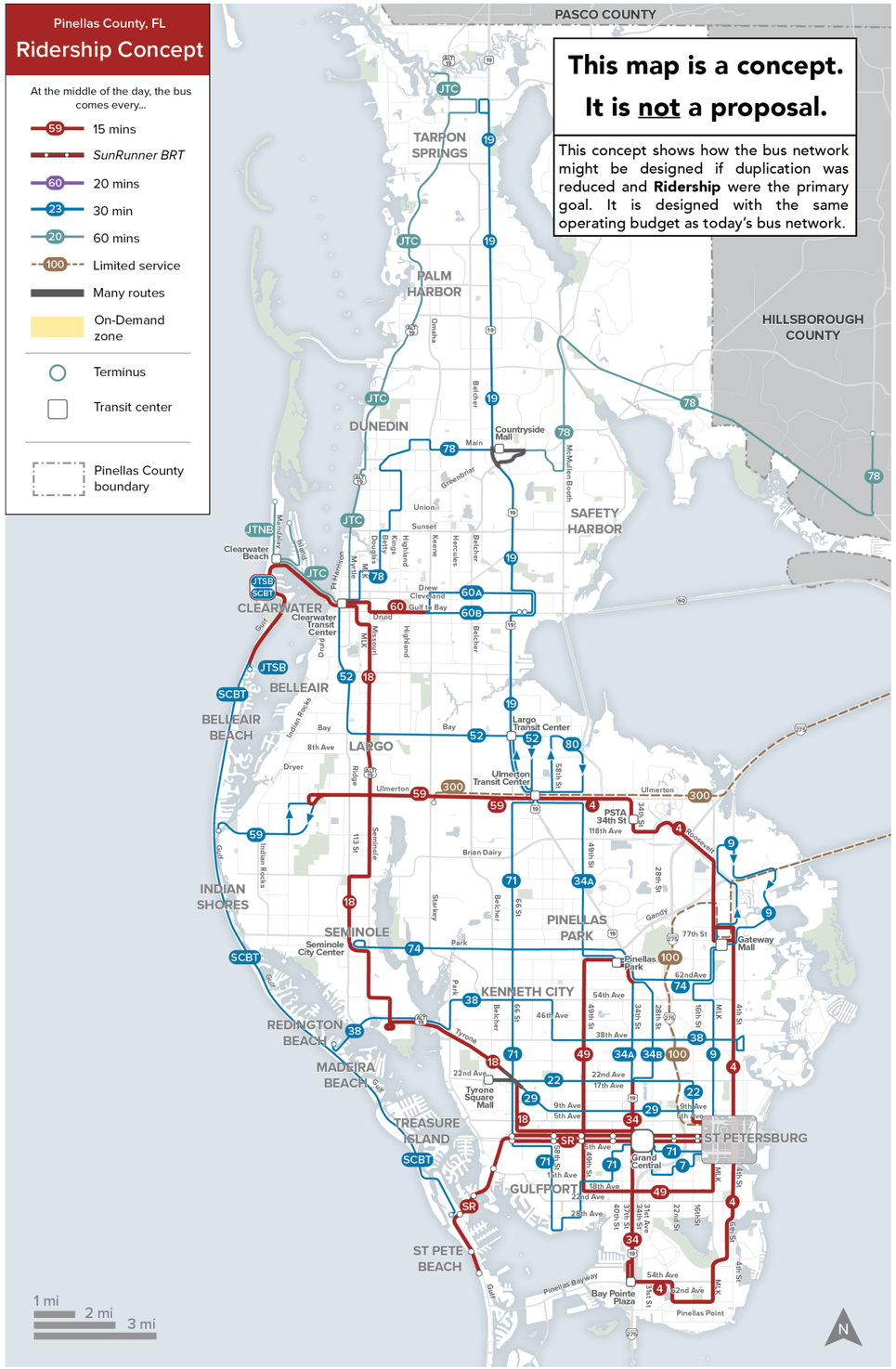


Figure 13: The Ridership Concept.

Existing Spans of Service

The chart on the right summarizes each route's **frequency** (how often a bus on the route comes) and **span** of service (what days and what durations the route operates). Each hour a route operates is shown by a single block, colored roughly according to the frequency offered in that period. From left to right, the columns of blocks show service for each route during weekdays, Saturdays, and Sundays.

Similar to the network maps earlier, the span-frequency chart to the right shows how PSTA service consists of five routes that come every 20 minutes or better and most other routes operate every 30-60 minutes. The Downtown Looper (not visible on the previous map) comes every 20 minutes. For most routes, the frequency is consistent throughout the day. Routes 18 and 34 provide higher frequency during peak times, from every 30 minutes to every 20 minutes.

Throughout the weekend, the SunRunner and the Looper continue with the same frequency. However, on Saturdays, the other four more frequent routes drop to 30 minutes or worse. Other routes, such as Routes 9 and 79, drop from 30 minutes to 60 minutes. On Sundays, most routes run every 60 minutes and some routes turn off completely.

For transit to be useful, it must be there at the times of day you need it. Most routes start around 6am in the morning, but in the evening, spans are inconsistent. This adds some complexity that might discourage some riders. Many people may be reluctant to use transit because of its inconsistent availability. If someone buys a car to get home after evening or weekend work shifts when transit is unavailable, they may feel that they might as well drive on weekdays too. They are also much less likely to take transit at all, even if their bus comes every 15 minutes then.

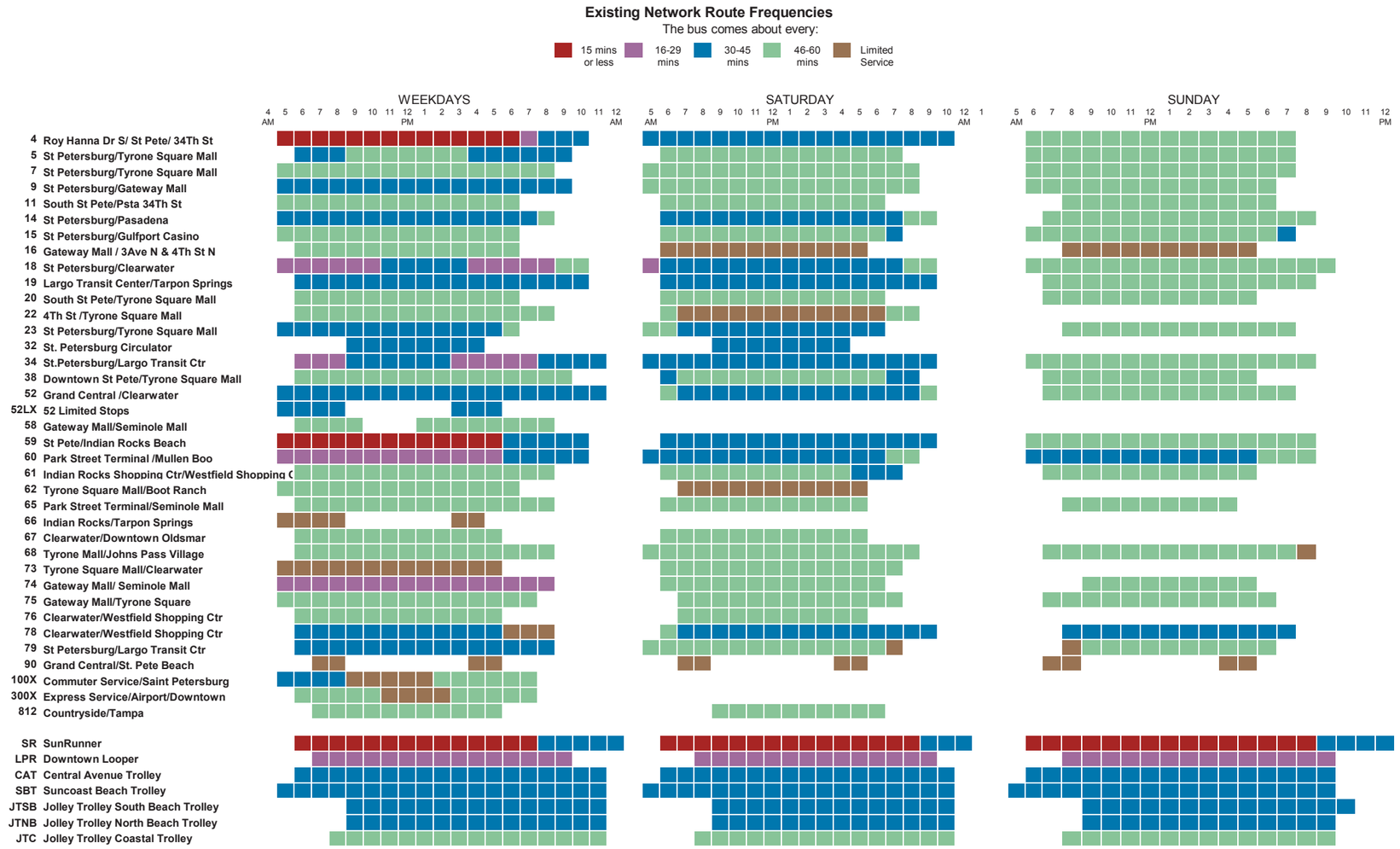


Figure 14: Spans and frequencies for all PSTA routes in Spring 2024.

Coverage Concept Spans of Service

The chart on the right shows the frequency by time of day for the routes in the Coverage Concept.

The span of service on most routes in the Coverage Concept begins around 6am and ends about 11pm on weekdays. Evening service is extremely important for many people that use transit, including retail and service workers who often end their shifts in the evening. While 11pm is not late enough for some workers, it is a big improvement over today. Consistent spans also make the network easier to remember. Since users don't need to memorize how late every route runs, this removes a barrier to navigating the network.

Saturday service is similar to Existing, but with shorter spans ending at 9pm. Route 4 has a frequency of 30 minutes on Saturdays like it does today.

In the Existing Network, some routes don't run on Sundays. In the Coverage Concept, every route runs on Sunday, but only every 60 minutes from 7am to 8pm. If the service were to run with the same frequency all week, and for longer spans, it would be more useful to more people. However, within the existing budget, this is the best that PSTA can afford.

Routes 100X, 300X, the SunRunner, the Looper, and the individual trolleys have the same spans and frequencies in both Concepts as they do today.

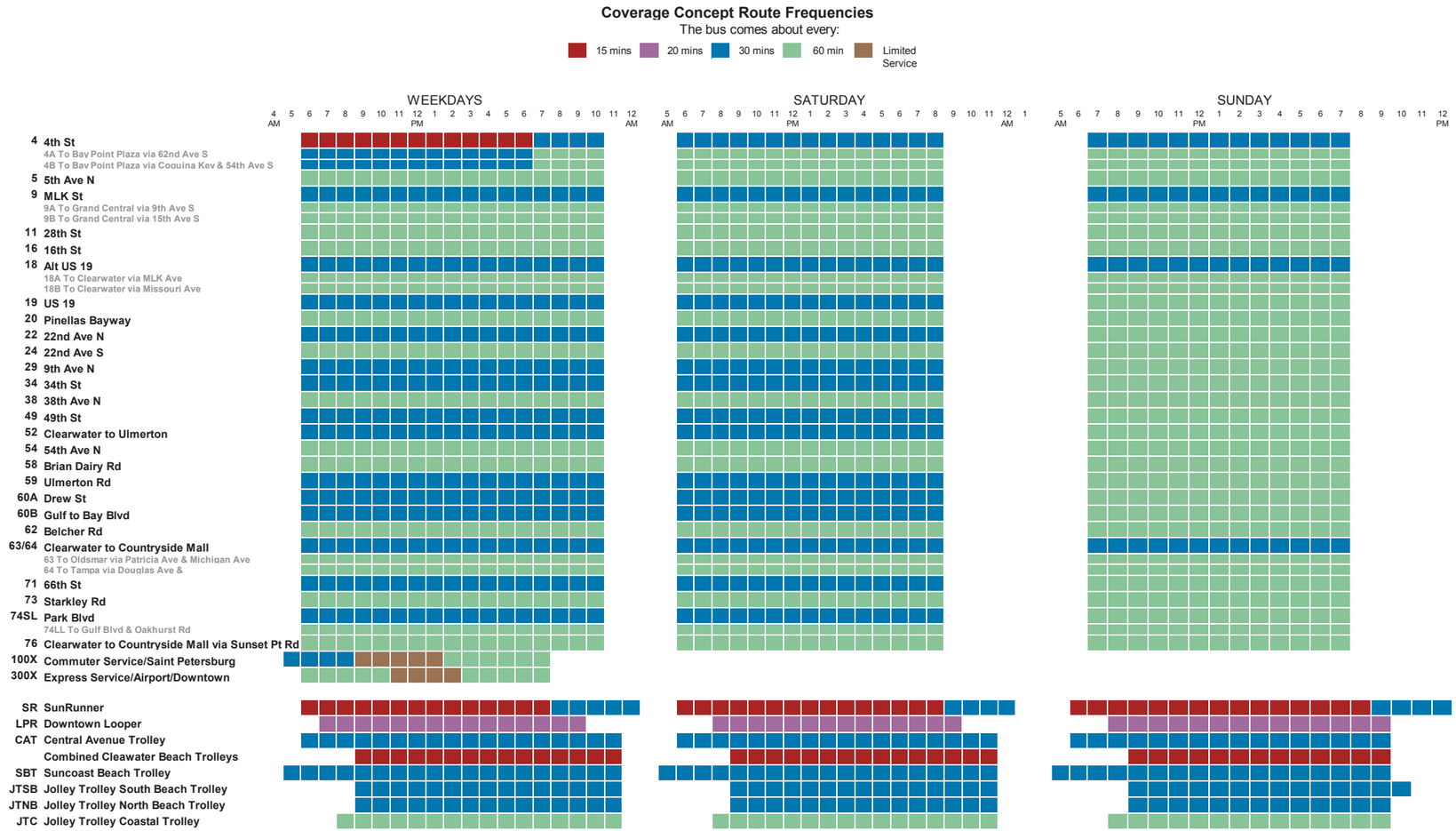
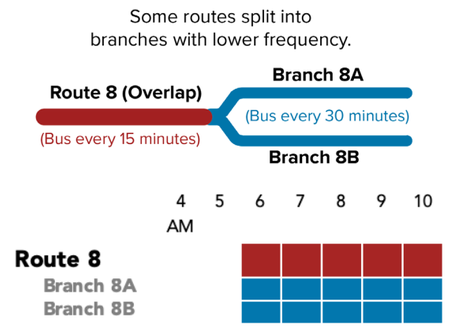


Figure 15: Spans and frequencies for routes in the Coverage Concept.

Some routes in the Concepts have branches with lower frequencies. The example to the right shows a route with a bus every 15 minutes on the "Overlap" portion and a bus every 30 minutes on "Branch A" and "Branch B". The chart shows the frequency by time of day. Example Route 8 starts operating at 6am, with service every 15 minutes on the "Overlap"—the red square under 5am. Each branch every 30 minutes during this time.



Ridership Concept Spans of Service

The chart on the right shows the frequency by time of day for the routes in the Ridership Concept. It consolidates service into fewer routes with higher frequencies on most routes.

Whereas today's network has three 15-minute routes, the Ridership Concept has eight. Those are Routes 4, 18, 34, 49, 59, 60, the SunRunner, and the Combined Trolleys in Clearwater Beach. Those routes would run every 30 minutes after 7pm on weekdays, every 30 minutes on Saturdays, and every 60 minutes on Sundays. Routes 34 and 60 have higher frequencies since they are each a combination of their "A" and "B" branches.

Most of the other routes in the Ridership Concept operate every 30 minutes on weekdays, every 30 minutes on Saturdays, and every 60 minutes on Sundays. Route 78LL and Jolley Trolley coastal are the exceptions running every 60 minutes all week.

Figure 16: Spans and frequencies for routes in the Ridership Concept.

Timed Connections

It's unlikely that all the places you might want to go will be located on the bus line nearest to your home. Connections allow people to travel in many directions to reach more destinations. Today, PSTA has several transit centers throughout its service area, but doesn't provide any timed transfers, also called pulses.

Normally, the amount of time a transfer takes depends largely on the frequency of the connecting routes. For an un-timed connection, transferring to a route that comes every 60 minutes requires a 30-minute wait, on average, and in the worst case a 59-minute wait.

In a timed transfer, many routes reach the transit center at the same time and depart five minutes later. These five minutes allow passengers to connect between routes easily. Timed transfers are very important to allow people to use more of the network.

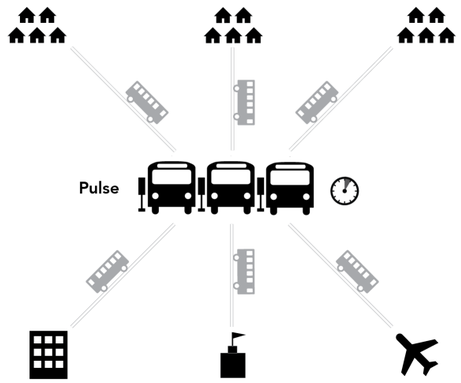


Figure 17: In a timed transfer, routes arrive at the same time, dwell for a few minutes so that passengers may transfer among them, and then depart again.

The Concepts have timed connections at key locations in the network:

- At the Clearwater Transit Center
- In Downtown St Petersburg at a generally-central location
- At a transit center/exchange point on Ulmerton Road between 62nd and 58th Sts.

Other transit centers in the existing network would stay the same but wouldn't have timed connections.

Why Ulmerton Road?

As we developed the Concepts, we kept the idea of connections in mind between routes that travel north and south and east and west in the county and a location on Ulmerton Road between 58th and 62nd Streets was where most routes wanted to start or end or could pass through without a significant detour. In contrast, the two next closest existing options (PSTA Headquarters and Largo Mall) were out of the way for enough routes that it wouldn't make sense to try a timed connection at either location.

In the medium term, we understand that Pinellas County is seeking to redevelop a lot in the area to create a new county services center. PSTA would coordinate with the County to ensure the site has bus facilities. In the short term, this exchange would place on the street in the area around the EpiCenter.

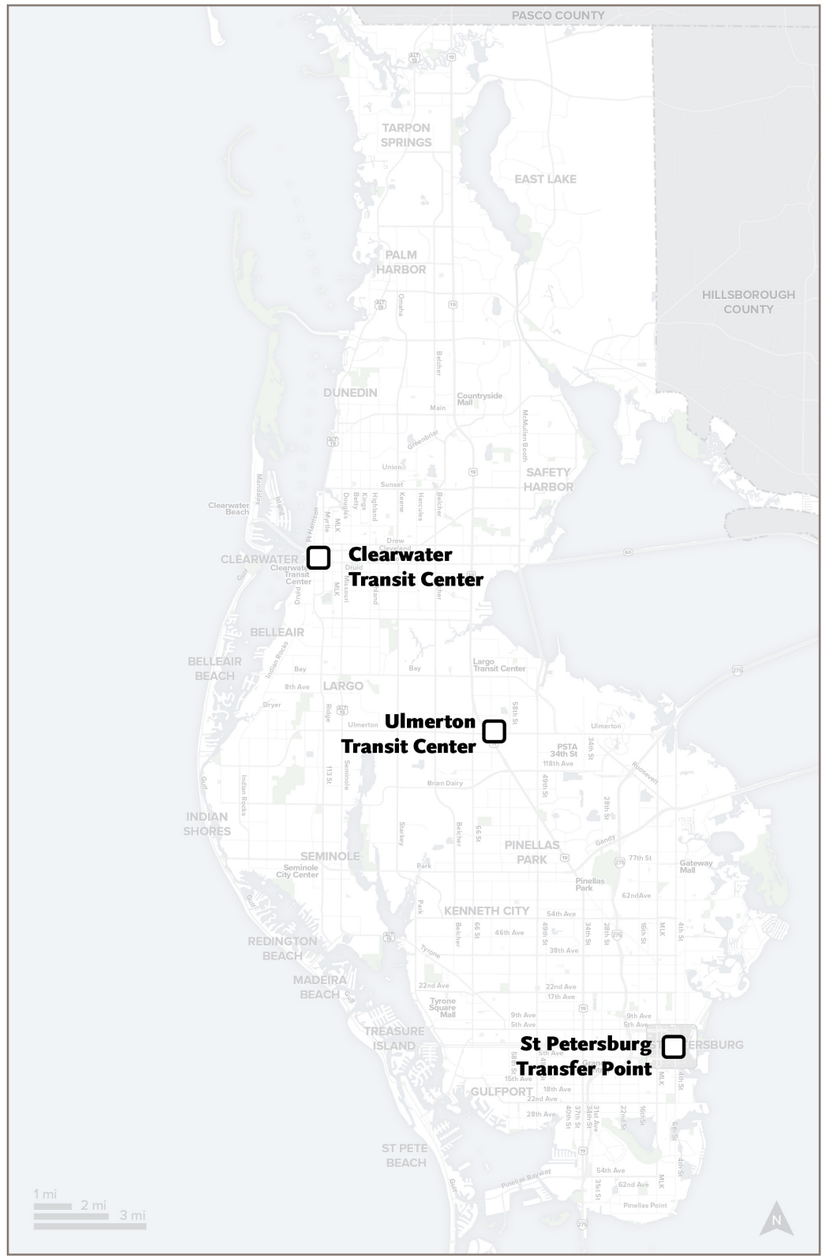


Figure 18: Timed Connections in the Concepts.

Downtown St Petersburg

Downtown St Petersburg has the strongest offering of transit service in the County, this is due in part to being the biggest activity node in the County. The service in Downtown St Petersburg includes the frequent SunRunner and Route 4. The Looper and Route 32 are circulator routes that only operate within Downtown St Petersburg. In addition, there are many other routes that run every 30 or 60 minutes.

The map on the right illustrates the complexity of these services. We've coded the routes based on where they come from and what they do in downtown St Petersburg. Most routes are doing something different, which provides service on nearly every street, but it also makes the network very difficult to remember. Some of this complexity is due to one-way streets in Downtown; however, most routes are using different couplets.

For example, Routes 14, 20, and 23 come into Downtown from the south using Martin Luther King Jr. Street South and then use 8th Street south. However, after that, each route does something different. Route 14 uses 6th Avenue South, Route 20 uses 3rd Avenue South, and Route 23 uses 1st Avenue South. This inconsistency makes it difficult for riders to make connections in Downtown St Petersburg.

The Concepts are not assuming a specific transfer location in Downtown St Petersburg, but it is essential to find a location. A transfer location in the center of activity will allow people to make connections easily with other routes and with the SunRunner. A transfer location could look like many things:

- An off-street facility like the Clearwater Transit Center
- A set of bus bays along a block
- A "transit mall" running along a few blocks of downtown

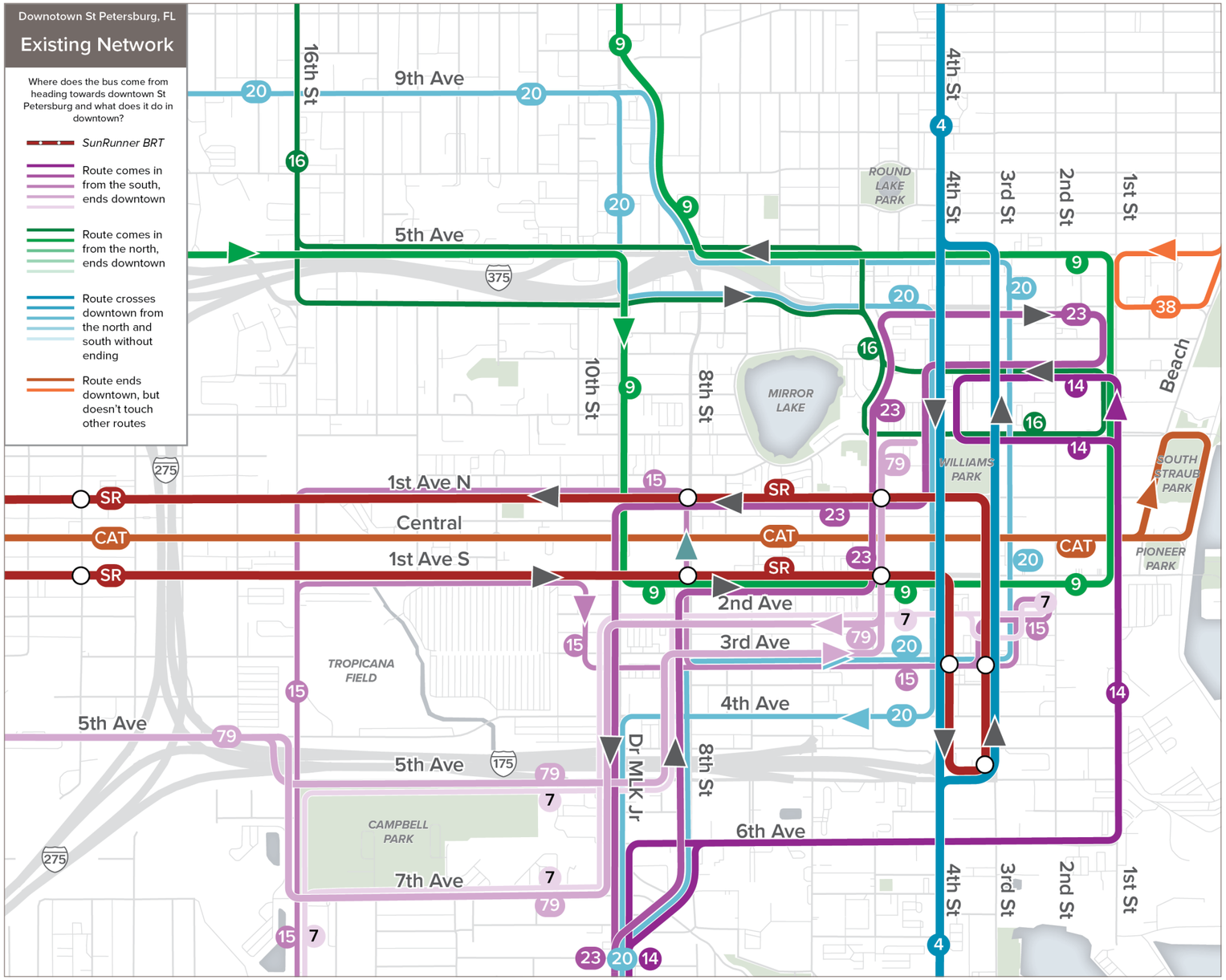


Figure 19: PSTA transit service in Downtown St Petersburg in Spring 2024. Routes are color coded based on where they are coming from.

3 Comparing Outcomes

Comparing Outcomes

The design of the networks and when and where service run are important to thinking about how service changes might affect individuals and their trips, but they tell us only so much about the overall affects of these Concepts. In this section, we look at three different ways of measuring the potential outcomes of the Concepts. These measurements are not forecasts. They do not make assumptions about how culture, technology, prices or other factors will change in the next few years. These are simple arithmetic measures that combine existing distance, time and population information to show the potential of each Concept and how they each differ from the existing network.

Proximity outcomes measure how a network achieves coverage goals.

Proximity

The first measure, reported on the next page, is very simple: *How many residents and jobs are near transit?*

Proximity tells us about how well transit is achieving coverage goals. It does not tell us how useful people will find transit service, only that it is nearby to them. We also report on proximity to frequent transit service, to provide a little more information about how many people are near service that they are more likely to use.

Isochrones

To understand the benefits of a network change, consider this simple question: *Where could I get to, in a given amount of time, from where I am?*

This question refers to the physical dimension of liberty and opportunity. If you can get to more places in a given amount of time, you will be more free and have more opportunities outside your neighborhood.

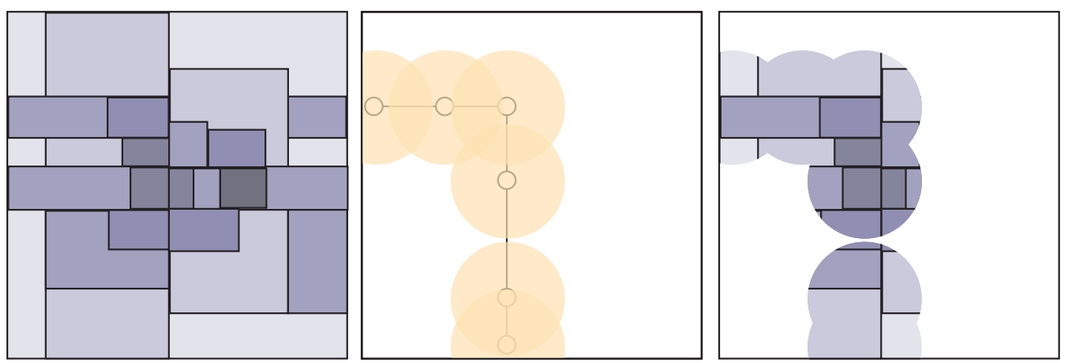


Figure 20: Example of how proximity to transit is measured.

Isochrones provide a visual explanation of how a transit network changes peoples' freedom to travel to or from a place of interest, on foot and by transit. A few examples are included in this report beginning on page 24.

Access

Isochrones display the change in access that a person would experience to or from a particular place. By summing up the isochrones for every single part around Pinellas County, we can describe how access to jobs would change for all residents of the service area.

This is a good proxy for a ridership forecast, because it describes the part of ridership forecasting that is basic math and highly predictable: *Could more people access more jobs (and other opportunities) by transit, in less time?* If the answer is "Yes," that implies higher ridership potential.

Access outcomes measure how a network achieves ridership goals.

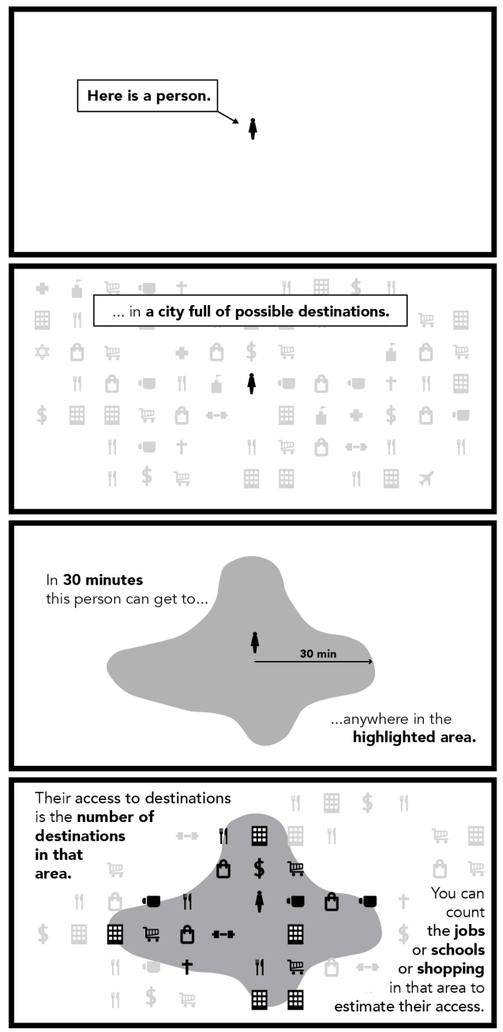


Figure 21: How transit service creates access to opportunity.

Proximity to Transit

The number of people near transit is the simplest measure of transit outcomes. In this report we call this measure "proximity." The two charts at right show how many residents (at top) and jobs (at bottom) would be within 1/2 mile of any transit service, or frequent service for the existing system and the Coverage and Ridership Concepts.

The Coverage Concept would result in more people and jobs being near any transit service, but not significantly more than today. About 65% of people and about 72% of jobs would be near any transit service, which is 2% and 1% higher than today, respectively.

The Coverage Concept results in slightly less people and jobs near frequent service than the Existing Network because some routes run less frequently.

The Ridership Concept would result in fewer people and jobs near any transit service, with about 48% of people and about 59% of jobs near any transit service. It would dramatically increase the number of people and jobs near frequent service, with roughly 20% of people and 30% of jobs near frequent service.

Proximity to service of any type is a good measure of an agency's success toward a coverage goal (though more specific investigations are essential to determine whether vulnerable people and important destinations are covered). Proximity does not tell us how useful the service is to people—only that it is nearby. In pursuit of a coverage goal, an agency will spread service thinly, to cover as many people as possible. Spreading transit thinly means routes have low frequencies, short spans, and circuitous routing. A route that is not very useful, but is proximate to many people, is helping an agency meet a coverage goal.

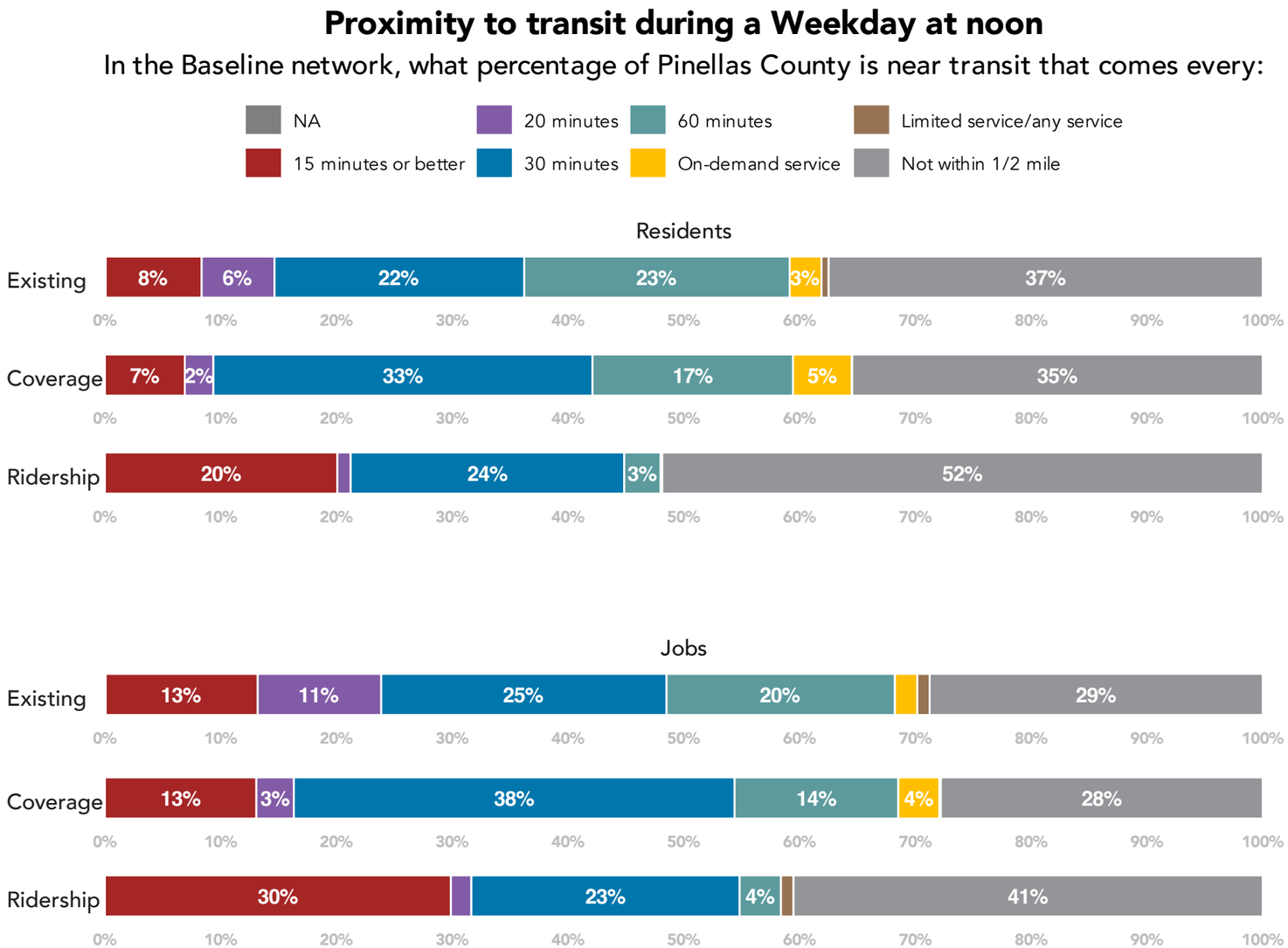


Figure 22: Residents and jobs within 1/2 mile of transit service in each network.

Proximity to Transit: Existing Bus Stops and Riders

The charts on the right shows the change in bus stops and riders near transit in the Existing Network compared to the Coverage and Ridership Concepts.

The top chart shows the percentage of each bus stop within a 1/2 mile of transit in each network. The Coverage Concept provides service near all existing bus stops while the Ridership Concept doesn't provide service near 15% of bus stops. In the Existing Network, 15% of bus stops have frequent transit service, but in the Ridership Concepts, that goes up to 39% of bus stops.

An earlier part of this study included an Origin-Destination Survey. A sample of PSTA riders were asked where they are traveling to and from. The second chart to the right shows the destinations near transit in each network. Setting the Existing Network at 100%, we see that the Coverage Concept covers a little more destinations. This suggests that some riders today are traveling longer than 1/2 mile to get to transit. The Ridership Concept provides service near 97% of destinations, while 58% of them are near frequent service.

The chart at the bottom compares existing riders (boardings at bus stops). The Coverage Concept has service near all riders, and the Ridership Concept has service near 98% of riders. This means that the places where the Ridership Concept eliminates service only accounts for 2% of PSTA's ridership. In addition, 66% of all of today's riders would be near frequent service in the Ridership Concept. This outcome measure only looks at existing riders, so it doesn't say anything about potential riders.

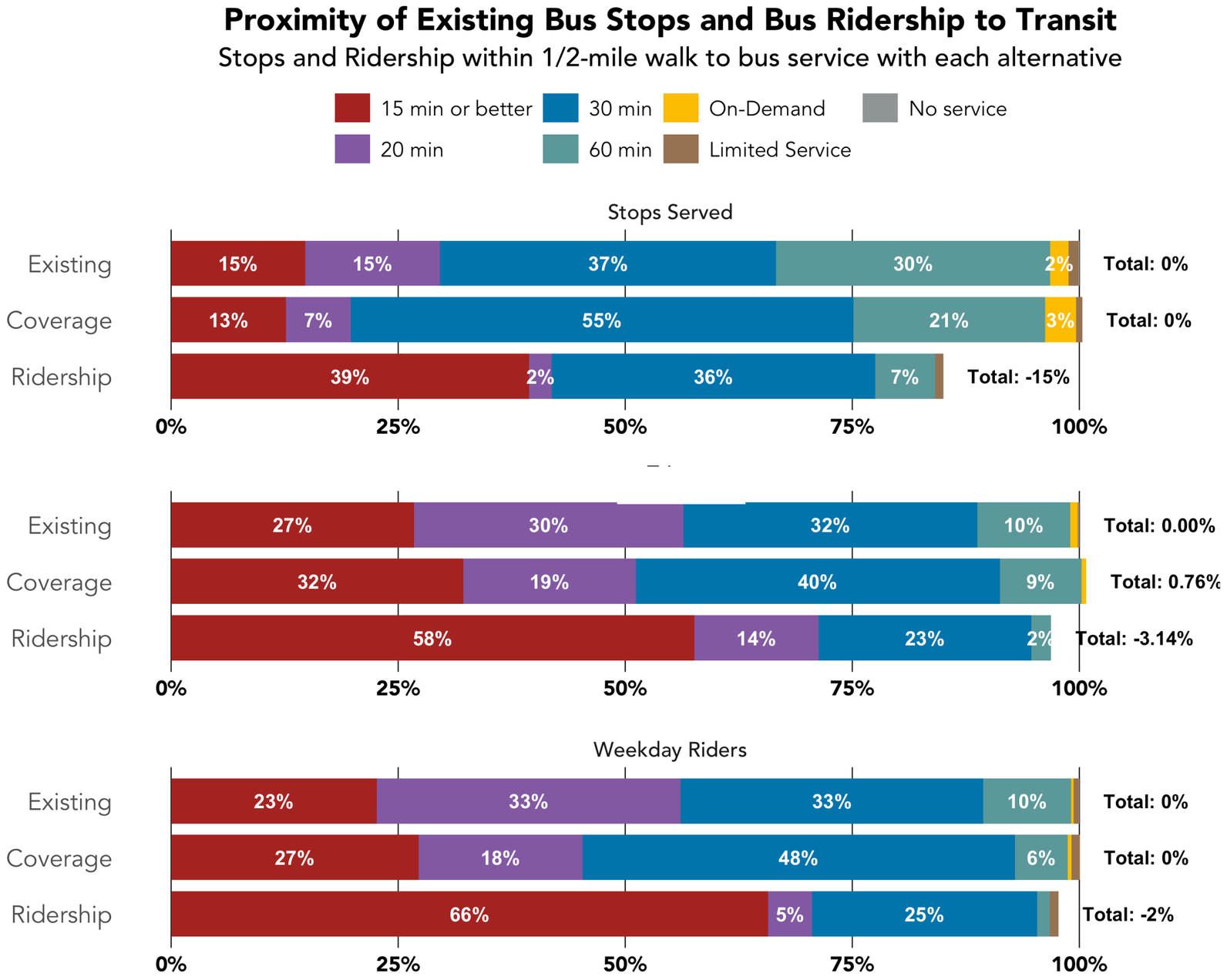


Figure 23: Bus stops and existing riders within 1/2 mile of each network.

Proximity to Transit: Disadvantaged Communities

Transit is often tasked with providing affordable transportation for low-income residents, which is why agencies provide service to some people and areas, regardless of ridership potential. Federal laws also protect those with low incomes from disparate transportation impacts, which is why agencies sometimes provide transit service in places where poverty is high, even if this does not maximize ridership. Similarly, federal Civil Rights laws require that transit agencies assess the impacts of changes to service on people of color to ensure there are no disproportionate negative impacts.

The charts on the right show the differences in proximity to service for Low-Income Residents and Residents of Color for the Existing Network and both Concepts. Today, 71% of Residents in Poverty are near any transit service. Under the Coverage Concept, this would increase to 73%, but fewer Residents in Poverty would be near a bus coming every 15 minutes. Under the Ridership Concept, the percent of Residents in Poverty near any service would decrease to 58%, but 25% of these residents would be near a bus coming every 15 minutes or better. These shifts are similar to how all residents are affected.

The Coverage Concept affects residents of color in a similar way, a slight increase in residents who are near any service and a decrease in those near frequent service. Similarly, in the Ridership Concept, Residents of Color near any service declines from 70% to 57%, but the percent near frequent service increases from 11% to 28%.

Since each Concept affects Residents of Color and Residents in Poverty in roughly similar ways to all residents, it is unlikely that these Concepts, if implemented, would result in a Title VI disparate impact or disproportionate burden.

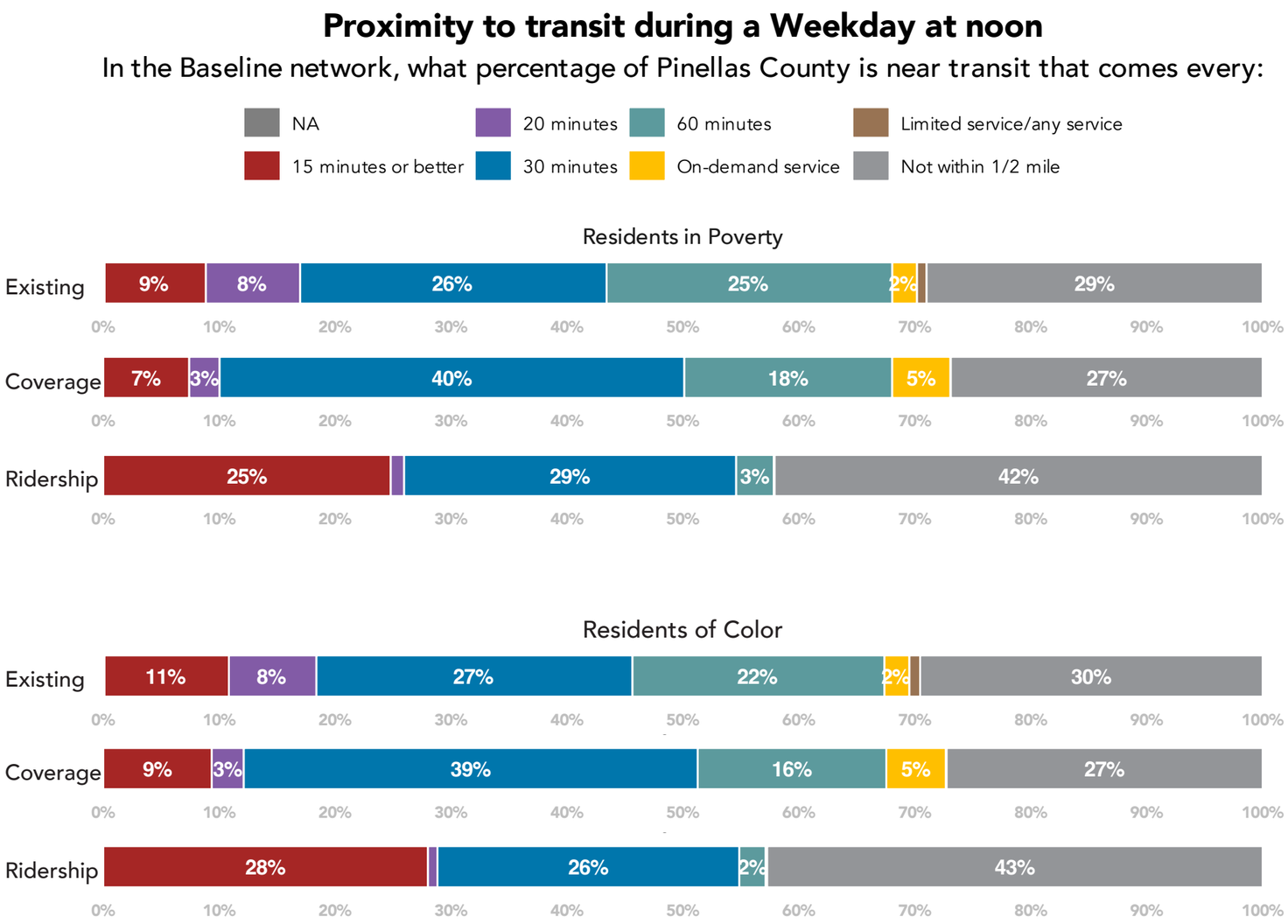


Figure 24: Residents in Poverty and Residents of Color within 1/2 mile of each network.

Freedom, Access, Usefulness

People ride transit if they find it useful. High transit ridership results when transit is useful to large numbers of people. A helpful way to illustrate the usefulness of a network is to visualize where a person could go using public transit and walking, from a certain location, in a certain amount of time.

The maps on the right show someone's access to and from South St Petersburg (22nd St S & 9th Ave S) in 45 minutes, at noon on a weekday in the Ridership and Coverage Concepts. Each Concept is compared to the Existing Network. The technical term for this illustration is "Isochrone". A more useful transit network is one in which these isochrones are larger, so that each person is likely to find the network useful for more trips.

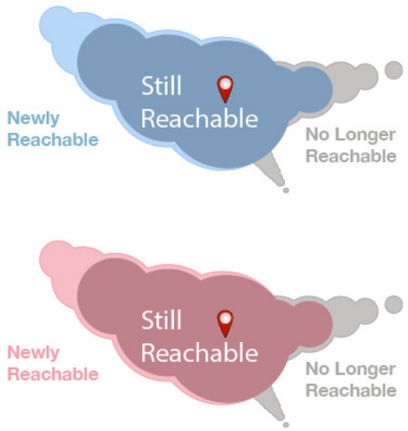
In the Coverage Concept Isochrones, the **dark blue** represents areas that are reachable today and would remain reachable in the Coverage Concept. Areas that are newly reachable are shown in **light blue**, and areas that would no longer be reachable are shown in **light gray**.

In the Ridership Concept Isochrones, the **dark pink** represents areas that are reachable today and would remain reachable in the corresponding Concept. Areas that are newly reachable are shown in **light pink**, and areas that would no longer be reachable are shown in **light gray**.

Not Just the Area – Also What is Inside the Area

The real measure of usefulness is not just how much geographic area we can reach, but how many useful destinations are in that area.

The maps show that for trips beginning from South St Petersburg (22nd St S & 9th Ave S), the Coverage Concept would keep the access to jobs and residents similar to the Existing



Network—only changing by 1%. The Ridership Concept would increase access to residents and jobs by 22% and 50%, respectively.

Ridership arises from service being useful, for more people, to get to more busy places. That's why predictive models of ridership do this very same analysis behind-the-scenes.

When reviewing these maps remember that **waiting time counts**, and in most cases, a longer walk to a high-frequency route can get people farther and faster, than a shorter walk to an infrequent route. Also remember that some of the access shown in these maps isn't reached on a single route, but requires a transfer. Especially in the Ridership Concept, some places are reachable quickly even when the trip involves a transfer.

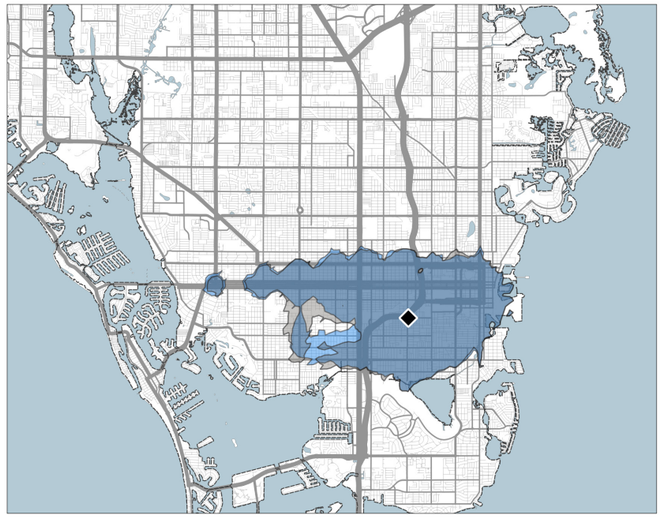
The next three pages show examples of isochrones from key locations throughout Pinellas County.

How far can I travel in **45 minutes** from

South St Pete (22nd St S & 9th Ave S)

on Weekdays at noon using the:

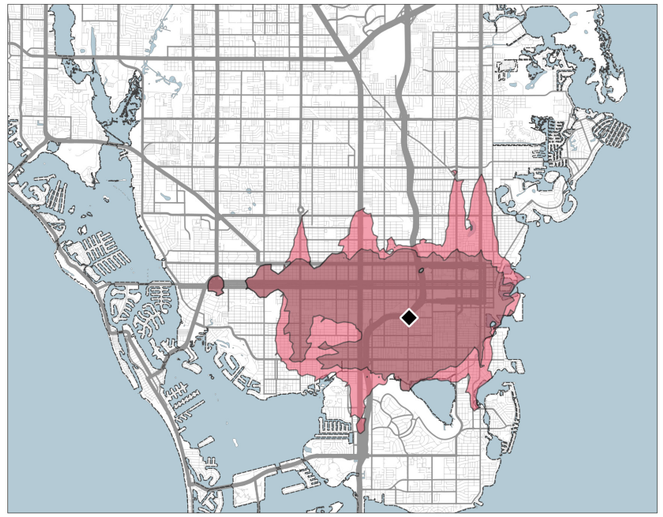
Coverage Concept



Change in Jobs Reachable in 45 minutes:
-1% (-278 Jobs)

Change in Residents Reachable in 45 minutes:
+1% (511 Residents)

Ridership Concept



Change in Jobs Reachable in 45 minutes:
+22% (+8,299 Jobs)

Change in Residents Reachable in 45 minutes:
+50% (+22,802 Residents)

Figure 25: Isochrones showing where you can get to in 45 minutes from South St Petersburg.

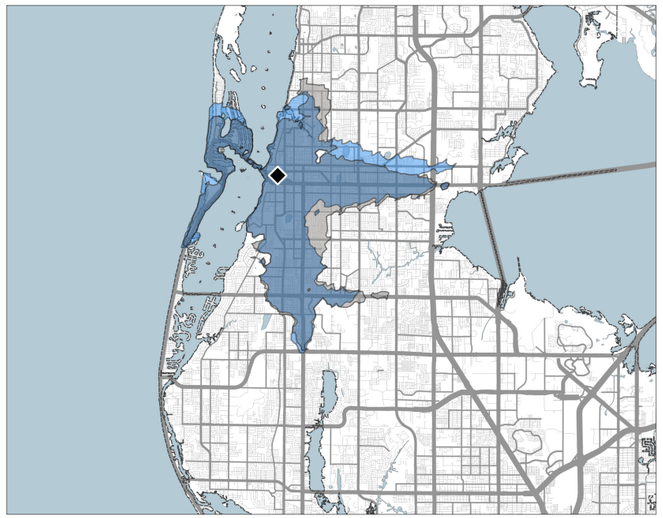
Isochrones (1)

How far can I travel in **45 minutes** from

Downtown Clearwater

on Weekdays at noon using the:

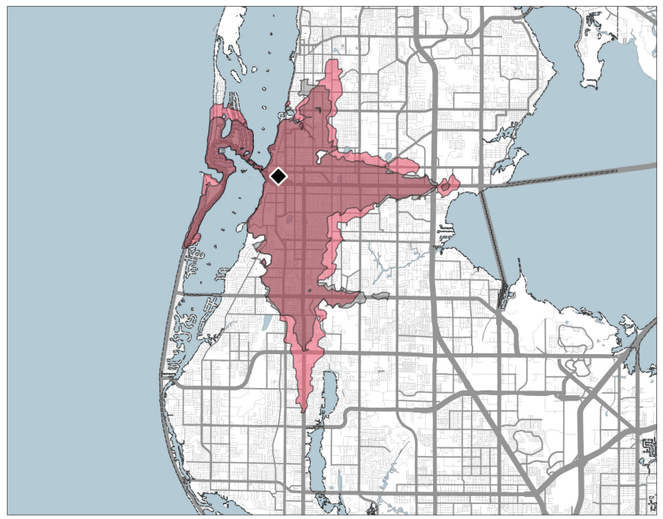
Coverage Concept



Change in Jobs
Reachable in 45 minutes:
+2% (+911 Jobs)

Change in Residents
Reachable in 45 minutes:
-3% (-1,824 Residents)

Ridership Concept



Change in Jobs
Reachable in 45 minutes:
+9% (+5,323 Jobs)

Change in Residents
Reachable in 45 minutes:
+22% (+14,872 Residents)

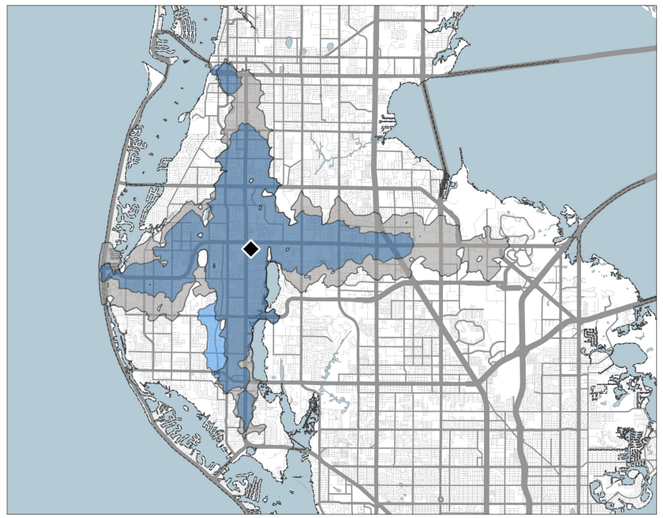
Figure 27: Isochrones showing where you can get to in 45 minutes from Downtown Clearwater.

How far can I travel in **45 minutes** from

Largo Mall

on Weekdays at noon using the:

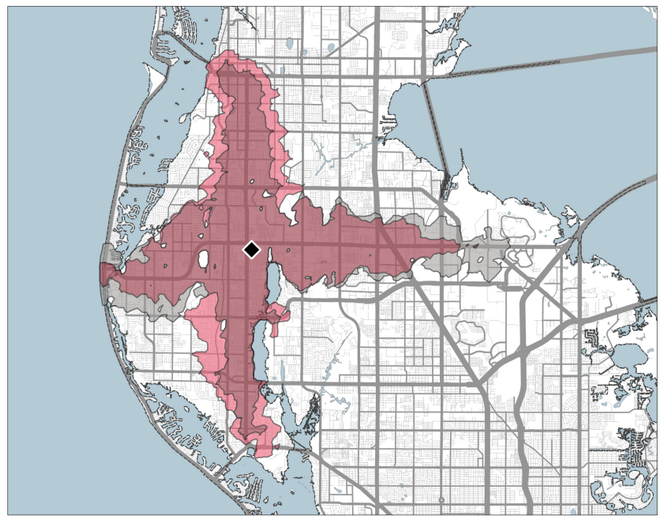
Coverage Concept



Change in Jobs
Reachable in 45 minutes:
-34% (-26,065 Jobs)

Change in Residents
Reachable in 45 minutes:
-29% (-31,867 Residents)

Ridership Concept



Change in Jobs
Reachable in 45 minutes:
+10% (+7,464 Jobs)

Change in Residents
Reachable in 45 minutes:
+12% (+13,172 Residents)

Figure 26: Isochrones showing where you can get to in 45 minutes from Largo Mall.

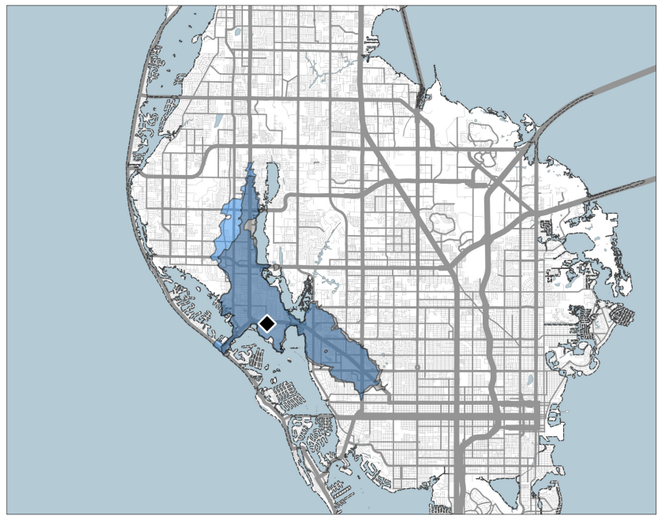
Isochrones (2)

How far can I travel in **45 minutes** from

VA Hospital

on Weekdays at noon using the:

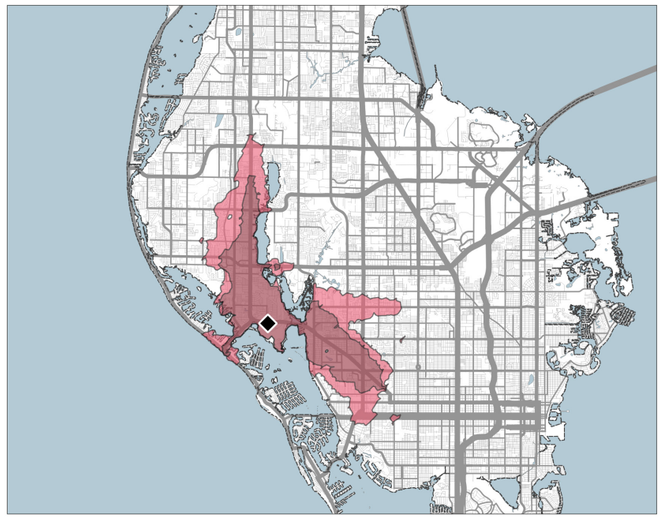
Coverage Concept



Change in Jobs
Reachable in 45 minutes:
+1% (+220 Jobs)

Change in Residents
Reachable in 45 minutes:
+11% (+3,820 Residents)

Ridership Concept



Change in Jobs
Reachable in 45 minutes:
+54% (+10,847 Jobs)

Change in Residents
Reachable in 45 minutes:
+101% (+33,788 Residents)

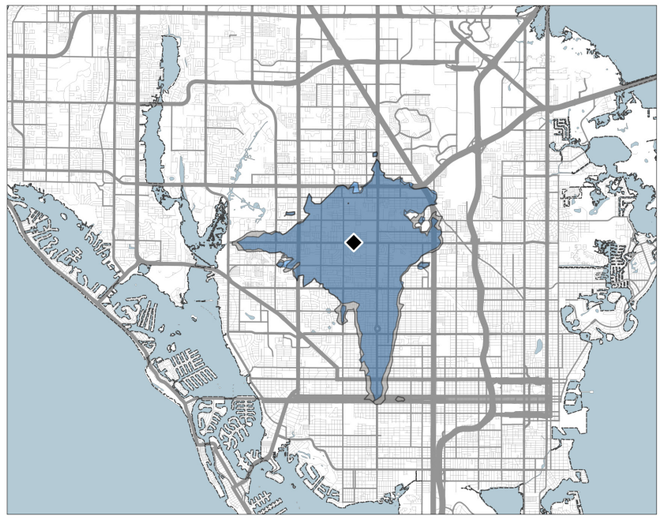
Figure 29: Isochrones showing where you can get to in 45 minutes from the VA Hospital.

How far can I travel in **45 minutes** from

54th St N & 54th Ave N

on Weekdays at noon using the:

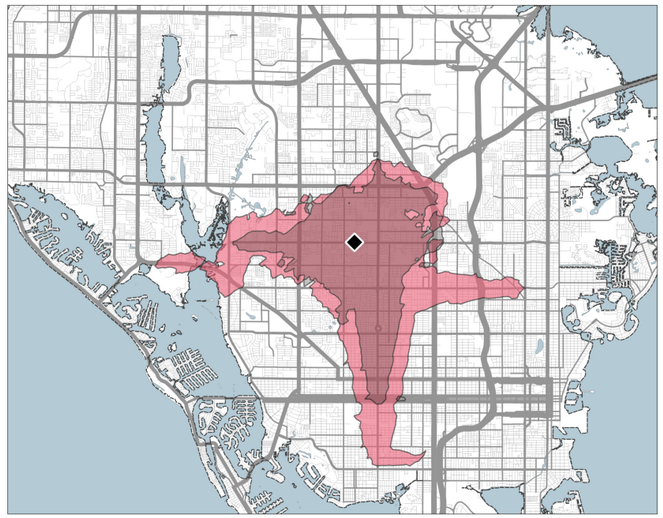
Coverage Concept



Change in Jobs
Reachable in 45 minutes:
-4% (-498 Jobs)

Change in Residents
Reachable in 45 minutes:
-9% (-3,794 Residents)

Ridership Concept



Change in Jobs
Reachable in 45 minutes:
+69% (+9,735 Jobs)

Change in Residents
Reachable in 45 minutes:
+79% (+35,112 Residents)

Figure 28: Isochrones showing where you can get to in 45 minutes from 54th St North and 54th Ave North.

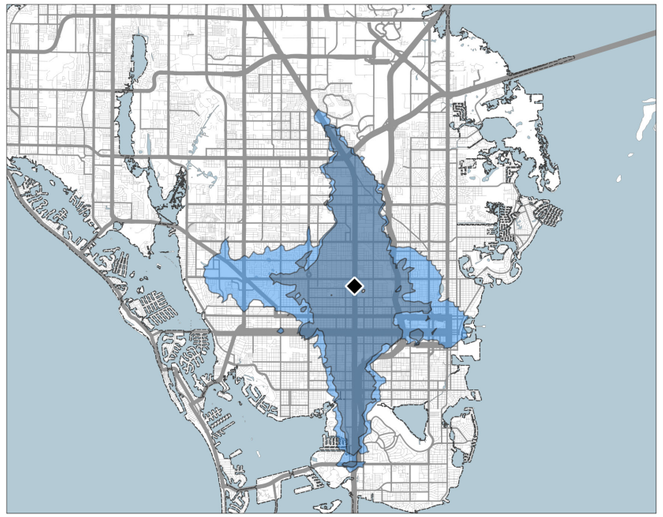
Isochrones (3)

How far can I travel in **45 minutes** from

Publix on 34th Street North

on Weekdays at noon using the:

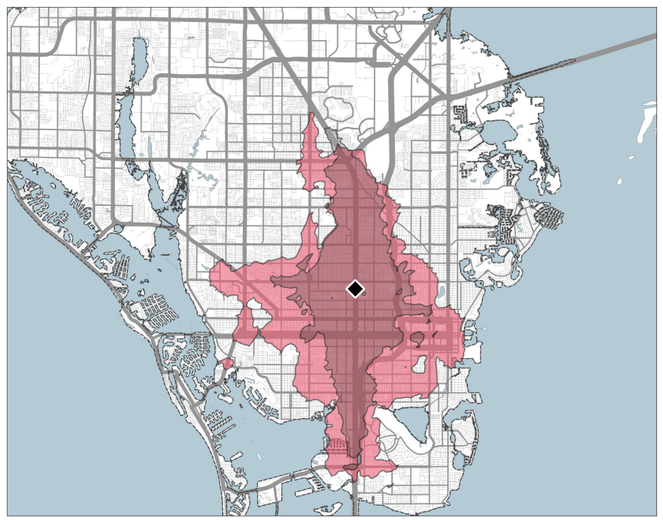
Coverage Concept



Change in Jobs
Reachable in 45 minutes:
+123% (+28,396 Jobs)

Change in Residents
Reachable in 45 minutes:
+72% (+42,383 Residents)

Ridership Concept



Change in Jobs
Reachable in 45 minutes:
+177% (+41,022 Jobs)

Change in Residents
Reachable in 45 minutes:
+122% (+71,921 Residents)

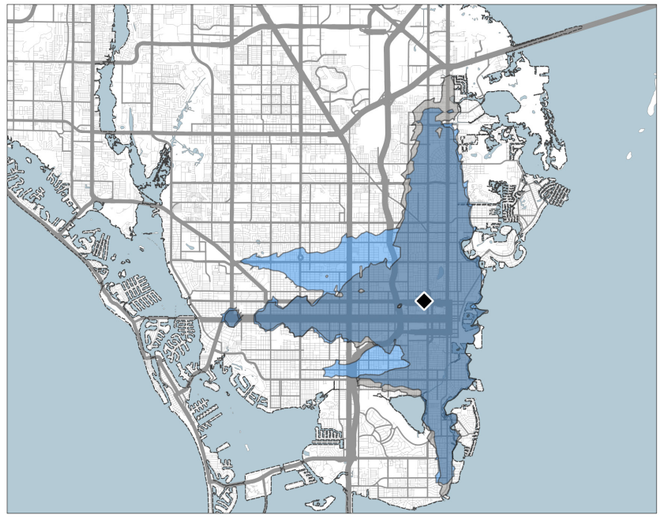
Figure 31: Isochrones showing where you can get to in 45 minutes from the Publix on 34th Street North.

How far can I travel in **45 minutes** from

St Anthony's Hospital

on Weekdays at noon using the:

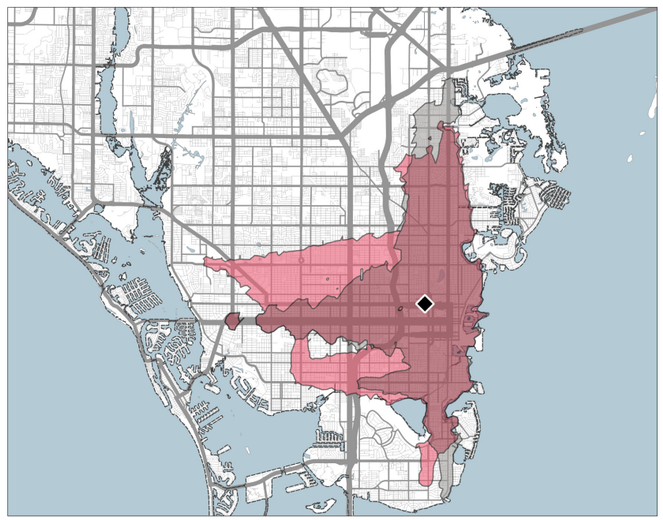
Coverage Concept



Change in Jobs
Reachable in 45 minutes:
+4% (+2,276 Jobs)

Change in Residents
Reachable in 45 minutes:
+14% (+13,222 Residents)

Ridership Concept



Change in Jobs
Reachable in 45 minutes:
+9% (+4,761 Jobs)

Change in Residents
Reachable in 45 minutes:
+28% (+26,966 Residents)

Figure 30: Isochrones showing where you can get to in 45 minutes from St Anthony’s Hospital.

Change in Access: Coverage Concept

The previous maps show how the Concepts expand where people could go in a given amount of time, from certain places and the number of jobs and residents reachable. Access to other opportunities, like education or shopping would likely change in a similar way. We can run the same analysis throughout the entire County to estimate how access to jobs changes for different areas.

The map on this page and the next summarize the same thing for every part of Pinellas County. In this map, every dot represents 50 residents and the color of the dot represents the change in jobs reachable in 45 minutes compared to the existing network.

Green dots represent more jobs accessible and **pink dots** represent fewer jobs available. The intensity of the color represents the intensity of the change.

The Coverage Concept shows a decrease in job access for many parts of the County. This is mostly due to the decrease in frequency on some routes, including Routes 59, 60, 74, and segments of other routes. Note that some places may see a decrease in access because they can no longer transfer easily to these routes.

There is an increase in job access in some areas where duplicative routes were combined for a higher frequency. This includes Route 22 on 22nd Ave North, Route 60A on Drew St, and the combined trolleys in Clearwater Beach.

There is also a very slight increase in jobs access in places with new coverage, including parts of Safety Harbor and St Pete Beach. These places only see a slight increase in job access because they have infrequent service that requires a long time to wait for a bus.

In the Coverage Concept, the typical resident can reach 16% fewer jobs in 45 minutes.

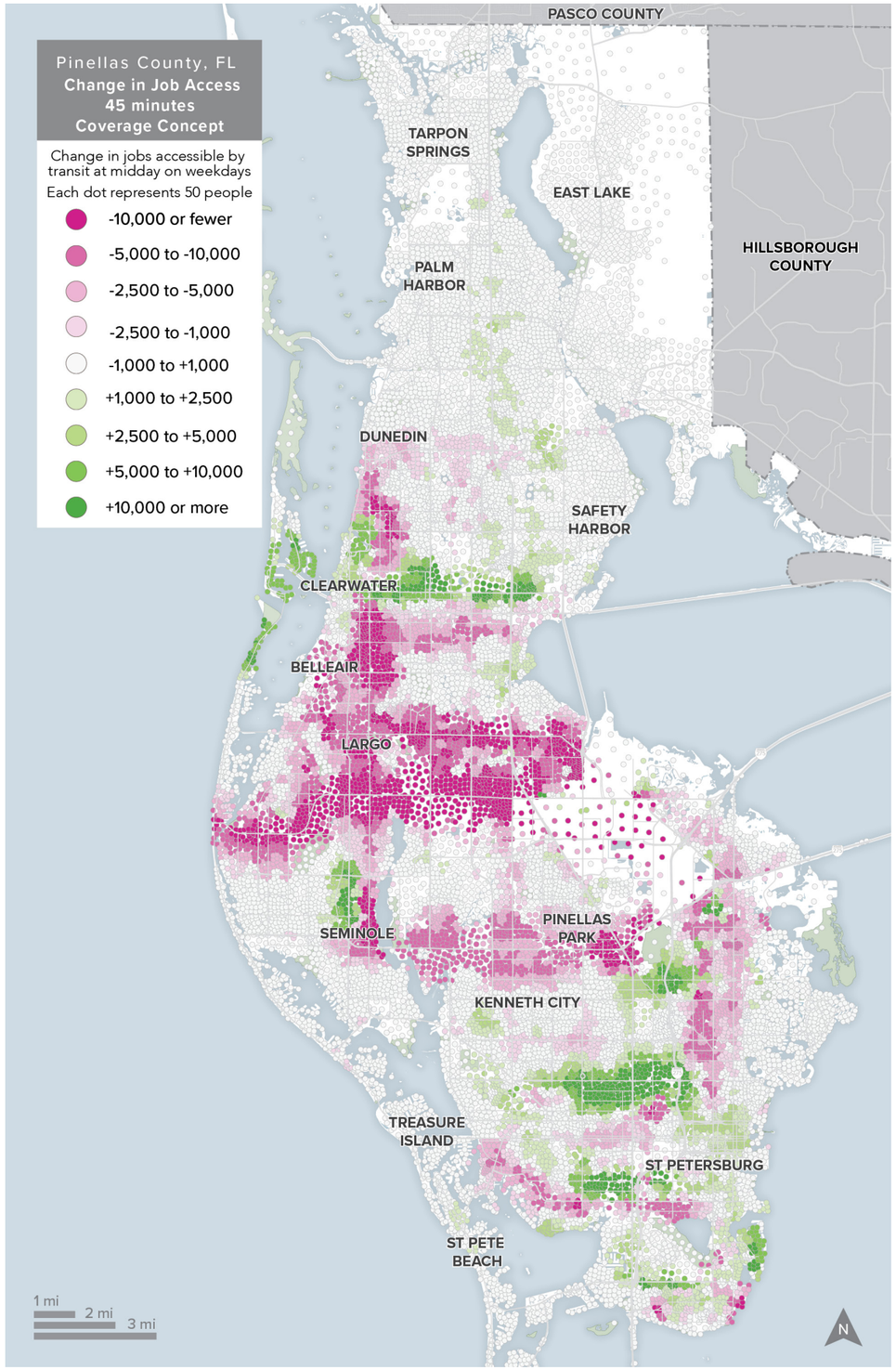


Figure 32: Change in job access in the Coverage Concepts compared to the Existing Network.

Change in Access: Ridership Concept

With more frequent routes across the busiest and most dense parts of the County, the Ridership Concept increases access to jobs and opportunity across much of Pinellas County.

Traveling across large parts of the County, particularly in the most dense areas, would be much faster, because waiting times would be much shorter, both for the initial wait for a bus and for a connection. The Ridership Concept would require people to walk longer distances, but it will get most people farther and faster to their destinations, primarily due to shorter waits.

There are large increases in access to jobs throughout many areas in the County, including Clearwater Beach, areas north and east of Clearwater, US Alt 19, and most areas south of 54th Ave North. These are places where frequency was increased or where people can now transfer more easily to frequent routes.

There is a decrease in access in places where frequency was decreased, including the western part of Route 59, the eastern part of Route 60, and Route 74. The frequency in these corridors was reduced because they are less dense than places that have 15-minute service. Areas along Route 52 also see a decrease in access, since they now require a transfer to travel south on 49th Street.

Places where service was eliminated see a decrease in access including parts of Belleair, parts of Gulfport, and 16th Street North.

In the Ridership Concept, the typical resident can reach 15% more jobs in 45 minutes.

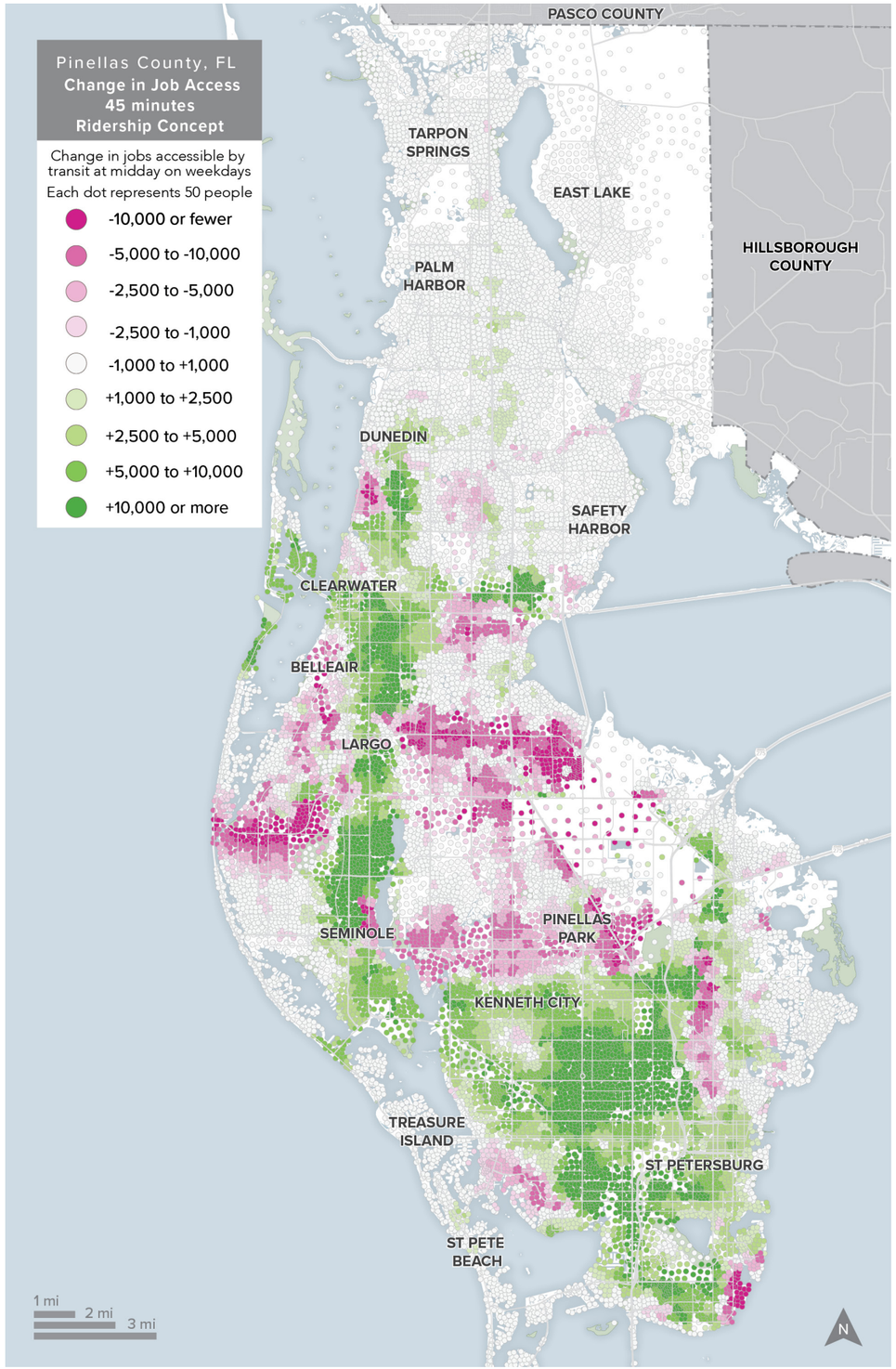


Figure 33: Change in job access in the Ridership Concepts compared to the Existing Network.

Access for the Typical Resident

The maps on the previous pages show how the two Concepts change access to jobs for different parts of Pinellas County. By adding up all the increases and decreases across the county, we can estimate how each Concept changes the access to jobs for the typical person in Pinellas County.

The chart on the right shows the change in how many jobs the median person could reach by walking and transit in 45 minutes. In the Coverage Concept this would decrease by 16%. When service is spread more thinly, more people have access to some service, but the average access goes down.

In the Ridership Concept, the improved frequency of service increases the number of jobs the median person could reach by 15%. So while fewer people have access to some kind of service, those who have access, can reach many more opportunities.

It is also worth considering how these job access factors change for people in disadvantaged situations. The Ridership Concept would increase access to jobs for residents of color by about 15% because it improves service in areas where these residents live more so than non-minority residents. For low-income residents, the Ridership Concept increases job access by about 12%.

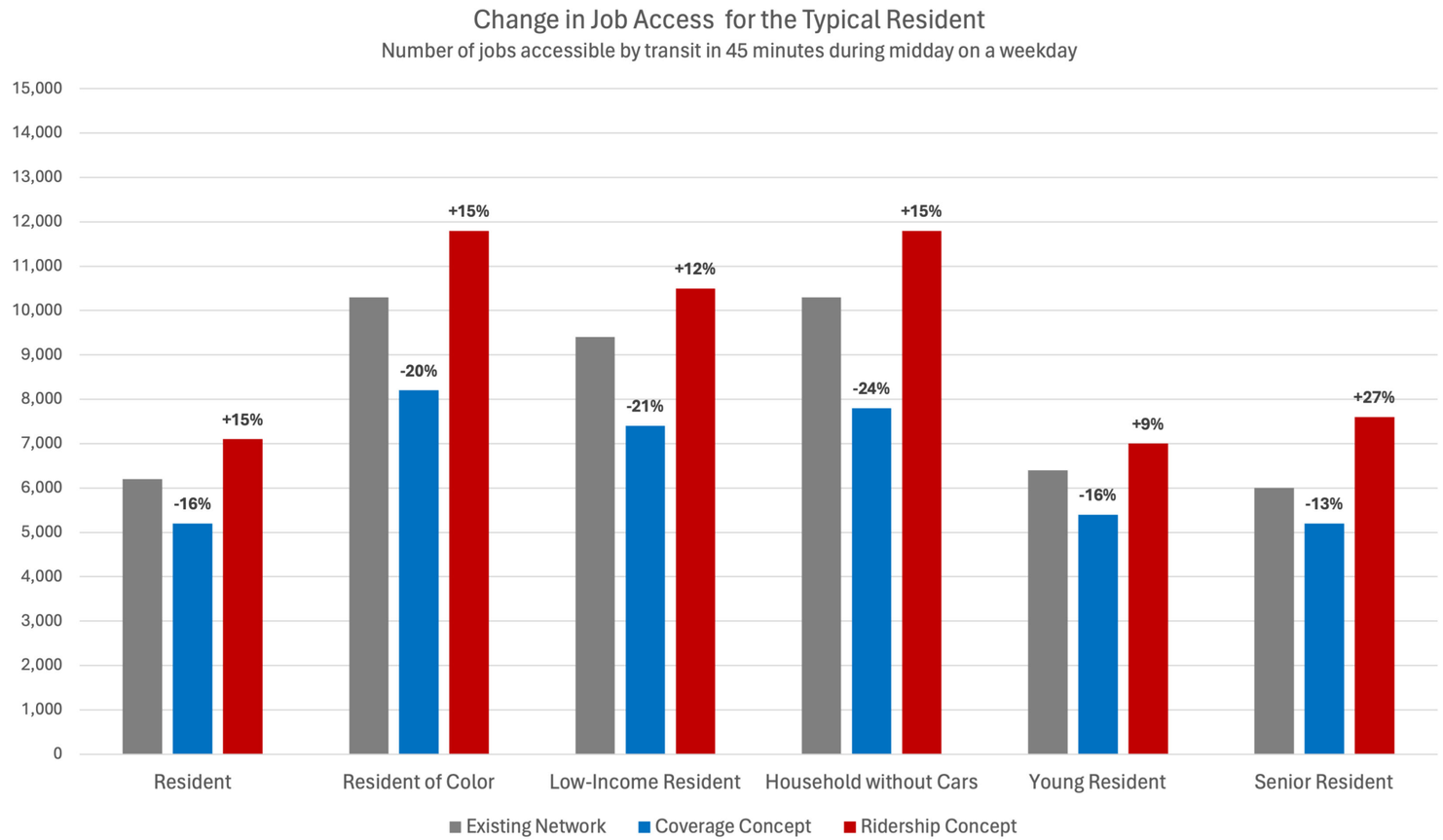


Figure 34: Change in job access for the typical (median) residents of different subgroups.

In 45 minutes, the typical residents can reach:

- ***16% fewer jobs in the Coverage Concept***
- ***15% more jobs in the Ridership Concept***

4 Key Choices and Next Steps

Key Choice: Ridership or Coverage

The two contrasting Concepts presented in this report illustrate many of the key choices considered in the Community Bus Plan.

How Should PSTA Balance High Ridership with Wide Coverage?

There is a policy-level choice, about the importance of high ridership. Within a fixed budget, increasing ridership requires reducing coverage. Both goals are valued, so how should the County trade them off against one another?

This trade-off can also be expressed as "Ridership vs Coverage" since the trade-off is forced by the basic math of transit. Concentrating service into more frequent routes, means that less service is available to spread around and cover more areas. Frequency is a key part of a high-ridership strategy.

Recall that high ridership serves several popular goals for transit, including:

- Reducing car costs, emissions and traffic.
- Achieving low public subsidy per rider.
- Allowing denser development without an enormous traffic congestion.
- Giving people more personal and economic freedom.

On the other hand, many popular transit goals do not require high ridership in order to be achieved. These include:

- Ensuring that as many people as possible in Pinellas County has access to some transit service, no matter where they live.
- Providing lifeline access to critical services.
- Providing access for people with severe needs.

No transit agency focuses solely on just one of these goals. Most transit agencies have some direct, frequent, long-span routes on which ridership and productivity are high, and others which run at lower frequencies and more limited times, for specific coverage purposes. Both Concepts that have been provided include services that meet some of each goal.

Residents shouldn't think about this choice not as binary, "yes or no" or either/or decision, but as a sliding scale (as in the graphic to the right) that the community can help to set, using these Concepts to help frame the range of possibilities for that spectrum.

This is not a technical question, but one that relates to the values and needs of the community.

In Phase 1 of public and stakeholder engagement, we heard about the public regarding abstract examples of Ridership and Coverage. So, in Phase 2 of outreach, we'd like to show the public these Concepts and hear their feedback.

The existing system is about 60% ridership and 35% coverage. The Coverage Concept spends about 50% of its resources on ridership goals, and about 50% on coverage goals. The Ridership Concept spends about 80% of its resources on ridership goals and about 20% on coverage goals.

So these Concepts show the community the outcomes of shifting in either direction, either slightly or more dramatically. With these Concepts, the community can consider more clearly the direction it wants to shift—either toward higher ridership or toward wider coverage.

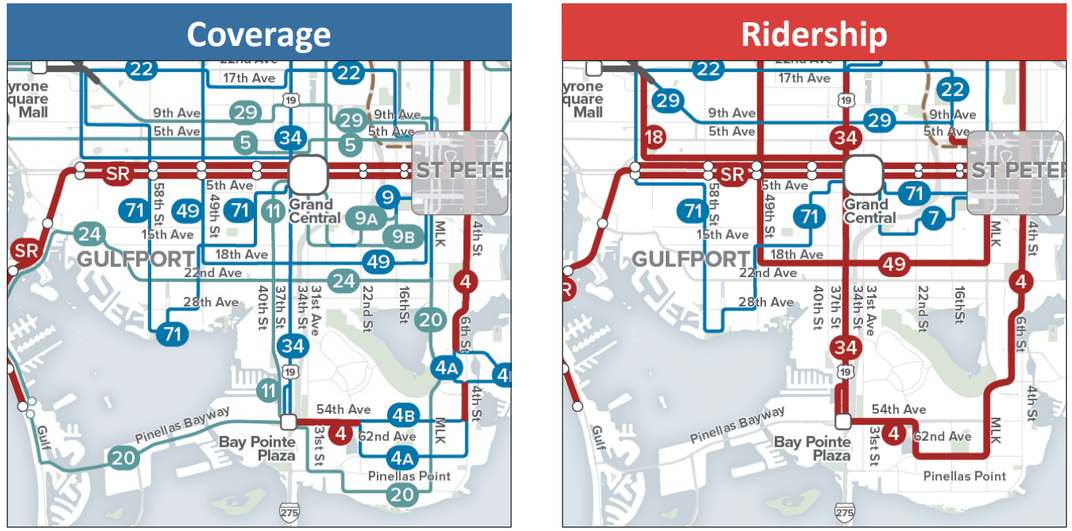


Figure 35: Spectrum of Transit Choices for the PSTA Network. The diagram represent how resources are divided between Ridership goals and Coverage goals/duplication in each scenario.

Key Choice: Stop Spacing

On most local routes in Pinellas County, stops are about every 0.17 miles (900 feet) apart. For many people along a route, it is easy to walk to any of several stops on a route. But a customer does not need several stops; they need one stop. There is a geometric trade-off between closer stop spacing and faster bus speeds. The figure on the right shows the basic trade-off in Conceptual terms. As stops are placed farther apart, buses can travel faster and cover more distance in the same time.

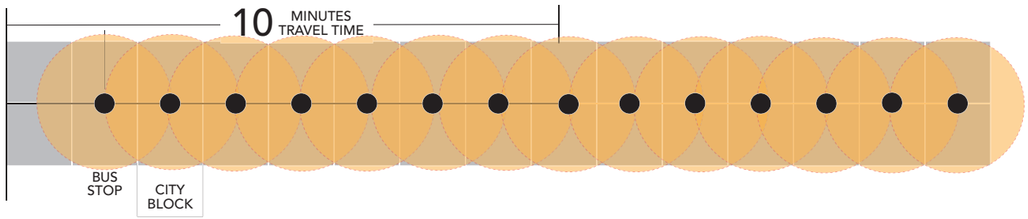
This increased speed has two benefits. First, riders can get farther faster and reach their destinations sooner. Also, as speeds increase across the entire transit system, more service can be provided for the same cost. Since the primary cost of transit service is the cost for labor which is paid based on time worked, the faster buses operate, the more service that can be provided for the same cost. So, higher frequency can be provided or routes can be extended to go farther for the same cost.

Both the Coverage and Ridership Concepts assume that stop spacing remains the same. If stop spacing were wider, most services would operate faster, getting riders to their destinations sooner, and allowing the county to run more service for the same dollars.

One key to a successful revision of stop spacing is for it to be a consistent policy applied in all comparable circumstances across the County, and tied to a clear countywide benefit in travel times. Many transit agencies have successfully widened stop spacing where these benefits were clear.

During Phase 1 of public engagement, we asked the public what they think about stop spacing. Figure 37 shows the results. Survey respondents generally preferred wider stop spacing than today.

Should PSTA have wider stop spacing for fast, more reliable service even if that means some people have to walk farther?



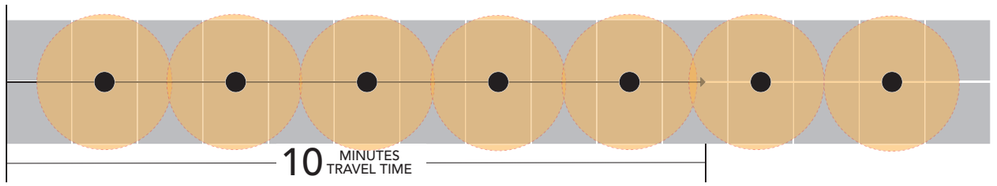
Closer stop spacing means:

shorter walks to a stop

slower bus speeds

less reliable service

longer travel time for many trips



Wider stop spacing means:

longer walks to a stop

faster bus speeds

more reliable service

shorter travel time for many trips

more amenities at each stop

higher average access

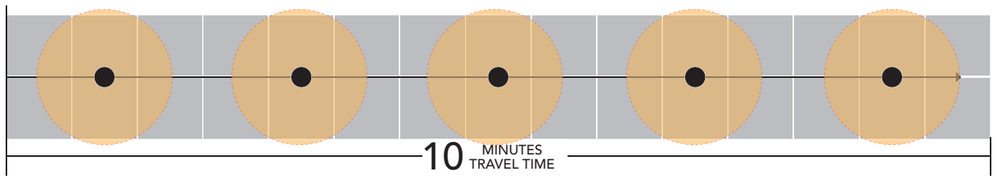


Figure 36: Trade-off between stop spacing and travel time

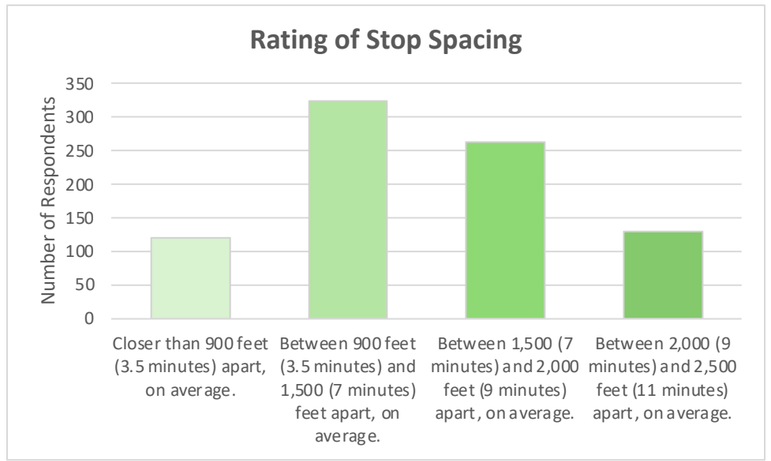


Figure 37: Survey respondents would prefer a wider stop spacing than today.

Connections in Downtown St Petersburg

The Concepts have three timed connections at key locations in Pinellas County—one of these is Downtown St Petersburg.

The Concepts are not assuming a specific transfer location in Downtown St Petersburg, but it is essential to find a location. A transfer location in the center of activity will allow people to make connections easily with other routes and with the SunRunner.

The map on the right illustrates the complexity of services in Downtown St Petersburg today. Routes are color coded based on where they come from and what they do in downtown St Petersburg. From this map, we can see that most routes are doing something different. This complexity makes it difficult for riders to memorize the network.

We can also see that some routes today don't connect to each other. These are missed connections that can be resolved with a specific transfer location.

A transfer location could look like many things:

- An off-street facility like the Clearwater Transit Center
- A set of bus bays along a block
- A "transit mall" running along a few blocks of downtown

This transfer location doesn't necessarily have to be the location where buses layover.

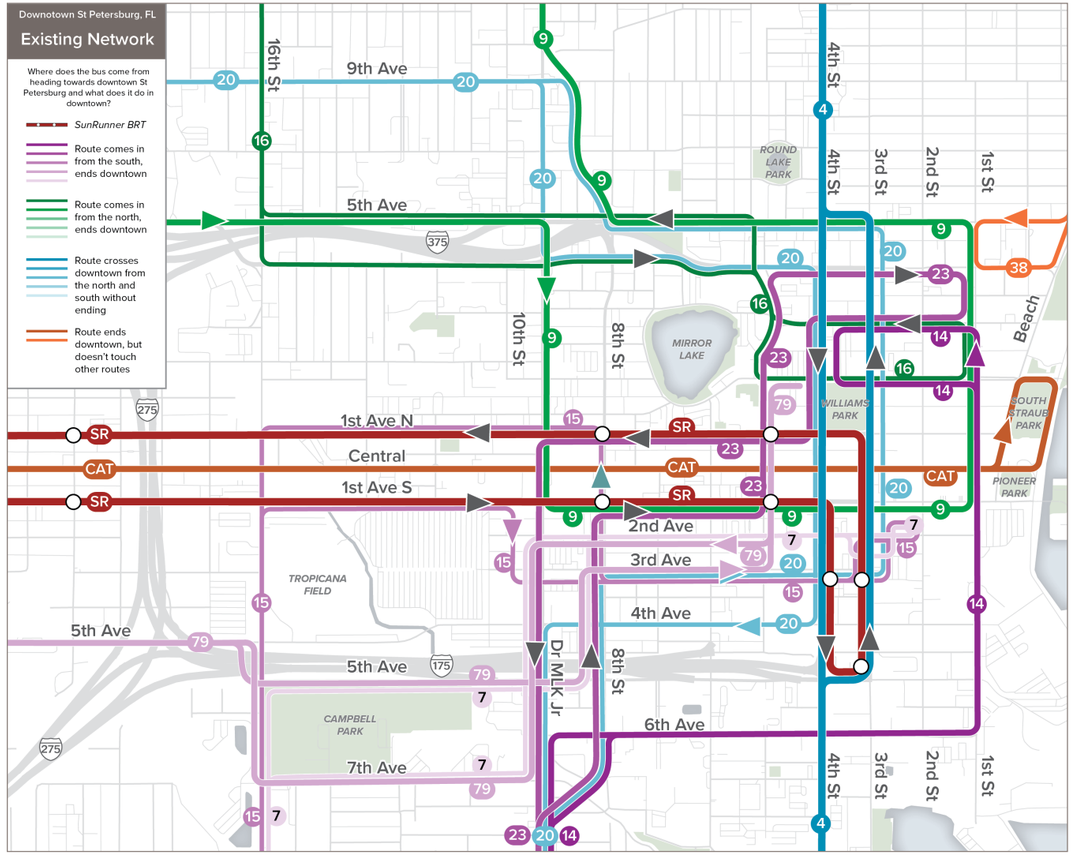


Figure 38: PSTA transit service in Downtown St Petersburg in Spring 2024. Routes are color coded based on where they are coming from.

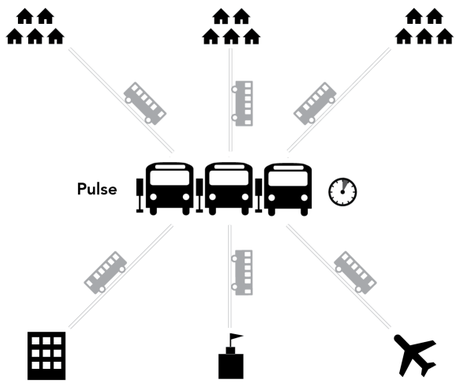


Figure 39: In a timed transfer, routes arrive at the same time, dwell for a few minutes so that passengers may transfer among them, and then depart again.

Next Steps & how to get involved

If you're interested enough to read this far, we'd love to have you more involved in this project!

This report kicks off a round of public engagement for PSTA to help guide the decision of whether to change how it balances the goals of high coverage and high ridership.

In May, members of the project team, PSTA staff, and others will be engaging the public through media outreach, social media engagement, surveying at community events, and public meetings. The project team will also engage with a select group of local stakeholders. Through this process, we need you to tell us what you think about these Concepts and what priorities PSTA should emphasize as it thinks about a new network.

Building on the input we get from you, the project team will develop a draft Network Plan beginning in July. The Draft Network will include maps of the new routes, and measures like job access change and proximity to service will be summarized in a report for the public and stakeholders to review. If PSTA decides to move ahead with any of the recommendations of the Draft Network, then there will be additional community notification before any actual service changes are made.

For more information and to stay involved in the project, go to https://psta.mysocialpinpoint.com/cbp to

- take the survey;
- email the team to ask questions;
- find out more about meetings and events where you can learn more about the PSTA Community Bus Plan process; and
- generally stay up to date on the latest happenings with the network redesign process!

Who will be consulted?

Many different people will be involved in guiding this plan:

- Transit riders
- People living on low incomes
- People of color
- Civic and neighborhood leaders
- Key Stakeholders
- Employers and businesses
- County and City staff
- Local elected officials

How to get involved

For more information and to stay involved in the project, go to https://psta.mysocialpinpoint.com/cbp and:

Learn More

- Get more background on the project
- See scheduled events
- Sign up for project emails

Give Input

- Take the online survey
- Sign up for our virtual meeting
- Connect via social media

Share with Others

- Spread the word
- Tell your friends, family, coworkers