Draft Transit Plan Report

APRIL 2024

Prepared for Greensboro Transit Agency

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1 Introduction

What Is GoBORO?

GoBORO is the Long-Range Transit Plan for Greensboro and will create a new vision for public transit service that supports the Greensboro's goal to become a **car-optional city** by 2045[1].

This is a **collaborative planning effort** between the City of Greensboro, Greensboro Transit Agency (GTA), regional partners, transit stakeholders, and members of the Greensboro community to decide the goals and purposes for the City's investment in public transit. GoBORO will create a **framework for decisions** about:

- How and to what extent the City's level of investment in transit resources can match the Community's values and goals;
- How these resources are invested—where bus routes will go, what times they run, and how frequently they run;
- How to phase and prioritize changes to get Greensboro's transit network closer to its transit vision; and
- How to plan for future growth in and around Greensboro that can help support its car-optional vision.

Transit is expected to fulfill several different goals. In Fall 2023, we released the Choices & Concepts Report to help decision makers, stakeholders, and the public think through and weigh the competing goals for transit service, and consider how much Greensboro should invest in transit service.

We gathered public input on these choices through online and in-person surveys. This report presents the Draft Transit Plan we designed following direction from the City Council based on your feedback.

1 The car-optional goal is one of several community goals outlined in the GSO 2040 comprehensive plan.

How Is the Draft Network in GoBORO Different?

The Draft Network is the keystone of the Draft Transit Plan. It is very different from the Existing Network in many big and small ways. There are many familiar corridors in the Draft Network, but almost every route has some changes, and there is new service in some areas.

Larger Budget for Service

The biggest difference is that the **Draft Network has more than twice as many resources** for transit service compared to the Existing Network.

Every transit agency must balance competing goals: whether to focus service into frequent, useful routes that serve more riders, or spreading service out to cover a large area with lower levels of service or minimum levels of service. You can read about this trade-off in more detail on page 12.

A growing resource pot means the community can invest in multiple priorities. Yet even with a larger budget, there are trade-offs between competing, but closely-held, values that were explored in the Concepts phase of GoBORO.

More Spent on Very Useful Service

A big portion of this larger resource pool is invested in **very useful service that attracts high ridership.**

The Draft Network has many frequent routes (buses every 15 minutes most of the day). Every route runs from 5 AM through midnight to 1 AM the next day. There is a consistent level of service all seven days of the week.

These frequent, useful routes are in the densest, busiest corridors of Greensboro. So a large number of people will be able to access a large number of jobs, services, and opportunities in a reasonable time. This type of very useful service makes transit a very attractive alternative to cars.

Service in More Areas

A portion of the budget is also spent in expanding transit service to new areas. **This will bring some transit service closer to more people and destinations than today,** even if it isn't very frequent.

Some routes in the Western areas of Greensboro in the Draft Network serve new areas on their way to Coble Transportation Center and the Piedmont Triad International (PTI) Airport.

In the Eastern parts of Greensboro, many areas are covered by new Demand Response Zones. This flexible service is more cost-effective at providing transit coverage in less dense areas where high ridership is not expected.

Crosstown Routes

Every frequent route in the Draft Network starts on one side of Greensboro and goes through Downtown on to the other side. These "crosstown" routes will let many people make **one-seat rides without waiting for another bus at the Downtown Depot,** which is not possible today.

If someone needs to take another crosstown route to get to their destination, they will only need to wait 7-8 minutes on average, because all crosstown routes run every 15 minutes.

The Draft Network presents a transformative vision that answers the question: "What if Greensboro greatly increased its investment in transit service?"

The Draft Network

The map on the right shows the predominant frequency on each route during most of the day in the Draft Network.

The **color** of each line shows the **frequency** of that bus route during most of the day on weekdays:

- **Red** means about every **15 minutes.**
- **Blue** means about every **30 minutes.**
- **Green** means about every **60 minutes.**
- **Tan** means the route operates only during peak hours or has infrequent or limited service.

There are also some **tan-colored areas.** These are not fixed routes but are "Demand Response" zones, where people can request rides within the zone or to a nearby fixed route stop.

By the time this report is published, Greensboro will have already experienced some results of this plan. **The new Crossmax Purple service is a direct outcome of the GoBORO process** and the extensive and fruitful collaboration with the City leaders. It is shown as the Routes 1A and 1B in the map. This corridor connects the campuses of NCA&T, UNCG, and GTCC Greensboro; major retail centers; dense residential areas; and Downtown Greensboro. It showed up as a high frequency corridor in both the Conceptual Alternatives we took to the Greensboro Community last Fall.

The Draft Network is described in more detail in Chapter 3. A detailed map of the Draft Network in Downtown Greensboro is also included in that chapter.

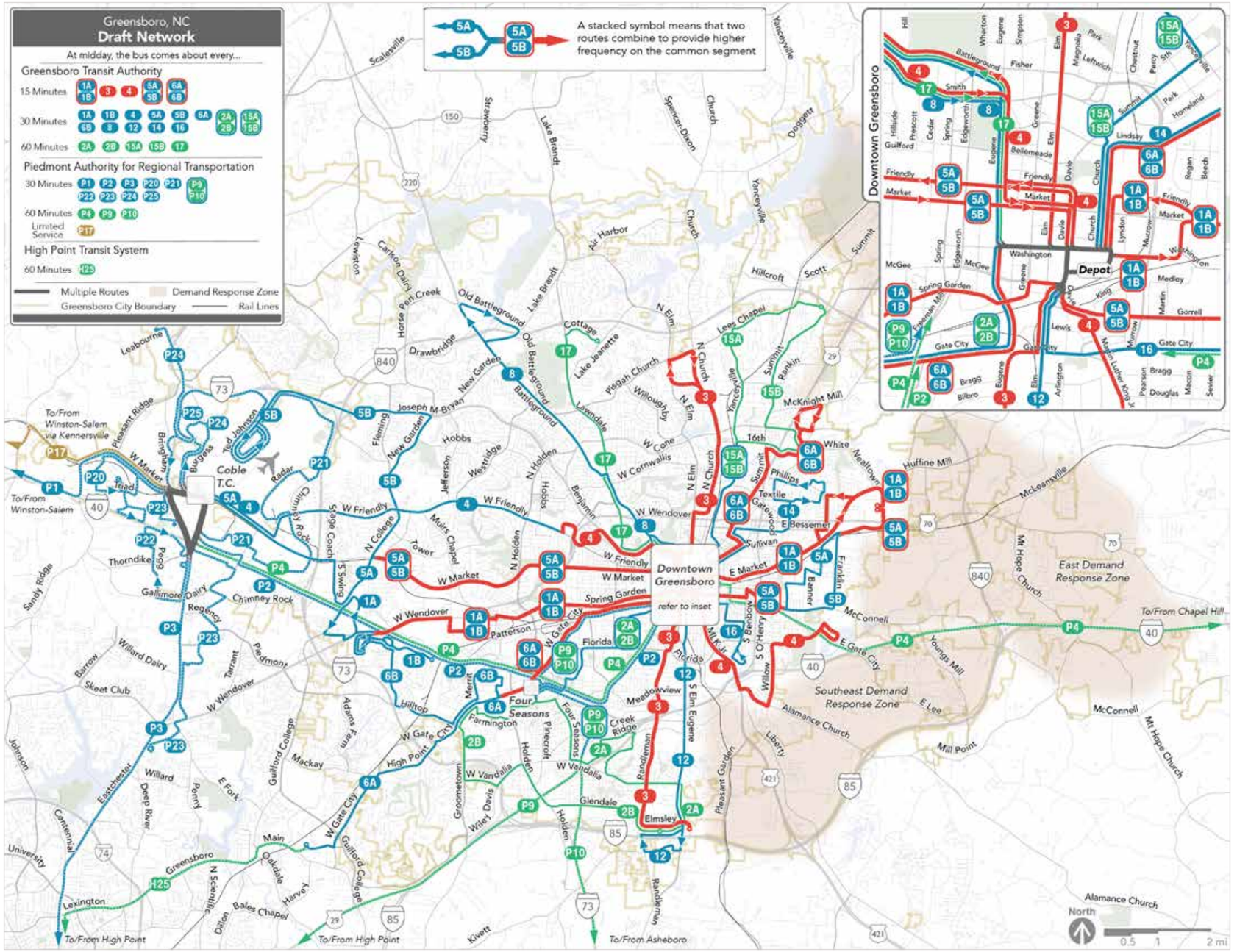


Figure 1: Map of the Draft Network with routes color-coded by frequency during the middle of the day.

Change in Outcomes

A very useful way to think about changes in transit service is to think about the changes in the outcomes of service that matter to people. Particularly, we can look at:

- **Access:** How many jobs and opportunities you could reach in a reasonable time, which tells you **how useful transit is as a travel option,** and
- **Proximity:** How many people and jobs are near transit, which means that **they have an option** to use transit, even if it isn't very useful.

Both of these measures tell us about the contrasting goals that transit can help achieve in a community.

If you want to get some transit service close to as many people as possible, you would maximize proximity. But proximity by itself does not tell us how useful transit is as an option, only that it is available nearby. If you want to maximize how many people find transit useful as an attractive alternative to cars, you would maximize access.

More detail about the changes in outcomes in the Draft Network are presented in Chapter 4.

We compare the outcomes of the Draft Network to the **GTA Network in Spring 2023,** which is when we began the GoBORO process. This also makes the Draft Network outcomes comparable to outcomes from the Ridership and Coverage Concepts in Phase 1 of public engagement. **The "Existing Network" we use as a baseline in this report does not include the new Crossmax Purple service** that was launched when we were compiling this report.

Access is Usefulness

People will choose to ride transit if they find it useful to get to their destination. 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 by transit and walking, from a given location, in a given amount of time.

The map on the right shows someone's access from the Greensboro Coliseum in 45 minutes, at midday on a weekday in the Draft Network, compared to the Existing Network. The technical term for this illustration is an **Isochrone.** A more useful transit network is one in which these isochrones are larger, and many more destinations are inside the isochrone, so that each person is likely to find the network useful for more trips.

The darker purple represents areas that are reachable today and remain reachable in the Draft Network. Areas that are newly reachable are in lighter purple, and areas that are no longer reachable are shown in gray. More examples of isochrones are on page 27 and in Appendix A. We can run the same analysis across the City to calculate overall change in access in the Draft Network. Those results are summarized on the next page and explained in detail starting on page 28.

When thinking about access, remember that frequency counts. More frequency means less time waiting and being able to get further in a given amount of time. The 45-minute travel time in the isochrones include the time spent in walking to the bus stop, time waiting for the bus, riding the route, waiting and riding time for any further transfers, and time to walk from the stop after getting off the last bus.

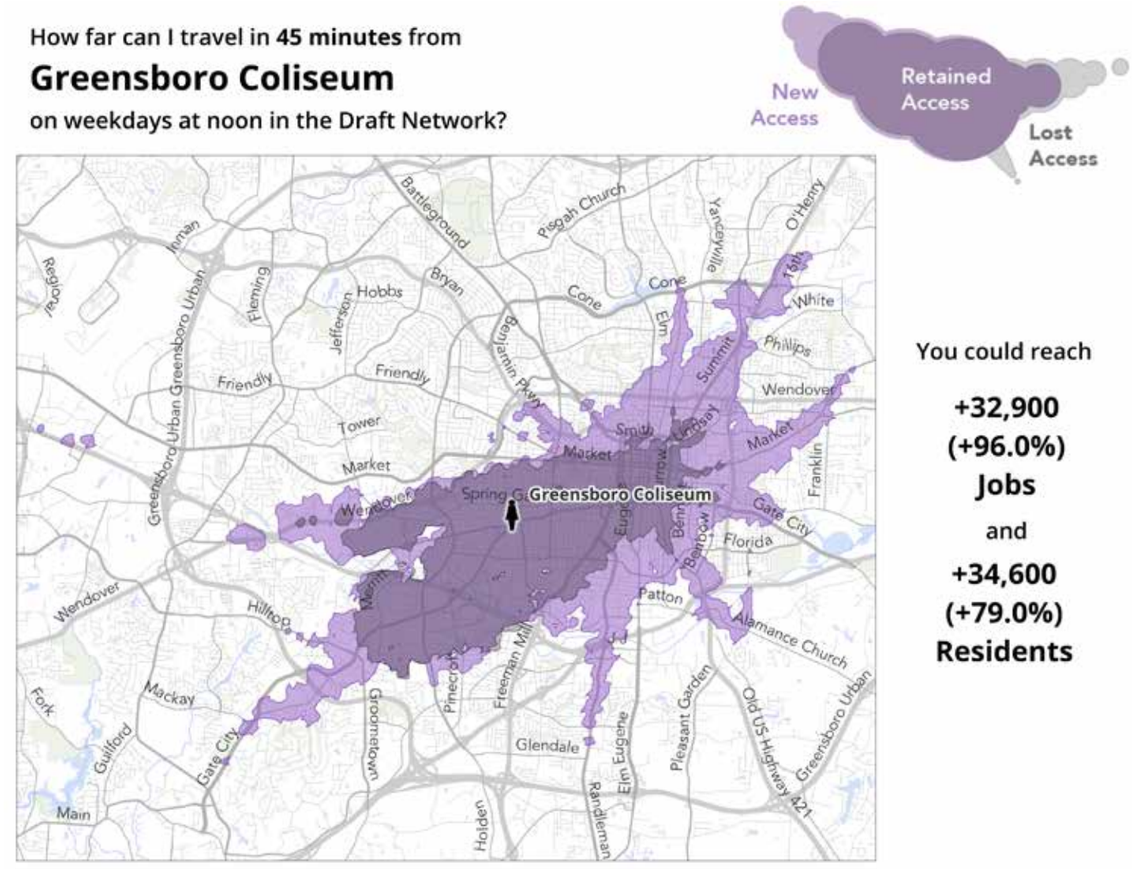


Figure 2: An isochrone shows how far someone can go, in a given amount of time, by walking and riding transit. This isochrone map from the Greensboro Coliseum show change in access to jobs and residents in 45 minutes in the Draft Network.

Change in Access to Jobs and Opportunities

The Draft Network drastically increases people's access to jobs and opportunities by transit compared to the Existing GTA Network.

Places where people want to go for opportunities other than work — like shopping centers, colleges, universities, hospitals — also often have a lot of jobs. One person's job can be a destination for many people throughout the day. This is why we measure access to jobs. It corresponds to these other opportunities that people also want to reach.

The chart on the right shows the change in the median number of jobs accessible by transit within 45 minutes[1]. In the Draft Network, the job access increases by:

- 100% for Greensboro Residents overall, (an additional jobs 6,500 reachable in 45 minutes),
- 118% for Residents in Poverty (15,200 more jobs),
- 87% for Households Without Cars (18,700 more jobs),
- 147% for Residents of Color (12,500 more jobs),
- 97% for Young Residents (6,100 more jobs), and
- 90% for Seniors (4,700 more jobs).

How Is This Achieved?

The Draft Network achieves big increases in job access because:

- It provides **frequent, useful service** in the places **where most people will benefit** from it. People have to wait less to catch a bus, and can thus travel farther and reach more opportunities in a given amount of time.
- The frequent routes also run through Downtown, so that **journeys along these crosstown routes do not need a transfer.** If a transfer is needed to another frequent route, the wait time is quite short.

With the Draft Network, a typical Greensboro Resident could reach an additional 6,500 jobs, or twice as many jobs and opportunities in 45 minutes by transit.

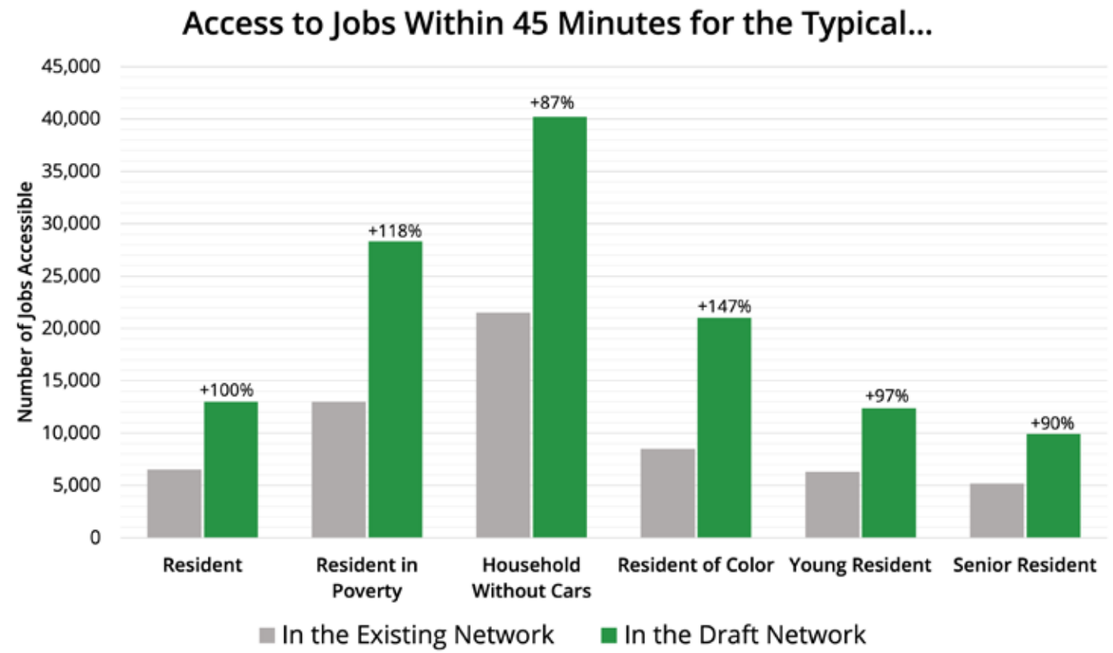


Figure 3: Median 45-minute job access for residents and various sub-groups of residents in the Existing Network and the Draft Network. We use median to illustrate access for a "typical" person in that group: 50% of the group will have a higher access and 50% will have a lower access than this.

1 We use the median of job access for people across Greensboro to show a value of how much job access each network provides for a "typical" person, or someone in the middle of the range. 50% of people, in fact, have higher job access than that, and 50% of people have lower access.

Change in Proximity to Transit Service

The charts on the right show proximity to transit for residents, jobs, and various subgroups of residents in the Existing Network and Draft Network. Each colored bar corresponds to the portion of that group in Greensboro that is close to service at a particular frequency, or in a Demand Response Zone.

59% of residents are close to transit in the Draft Network, compared to 52% in the Existing Network. This is a modest improvement in proximity. **The Draft Network would bring frequent, useful service close to about 84,000 residents and 70,700 jobs in Greensboro during most of the day. This represents around 30% of the City's people and 43% of the jobs in the City.**

This pattern of change in proximity to service is similar across various demographics. Particularly, the Draft Network expands the proportion of Low-income Residents, Households Without Cars, and Residents of Color near frequent service more so than it does for Greensboro Residents overall.

The Draft Network brings frequent, useful transit close to 84,000 residents and 70,700 jobs in Greensboro.

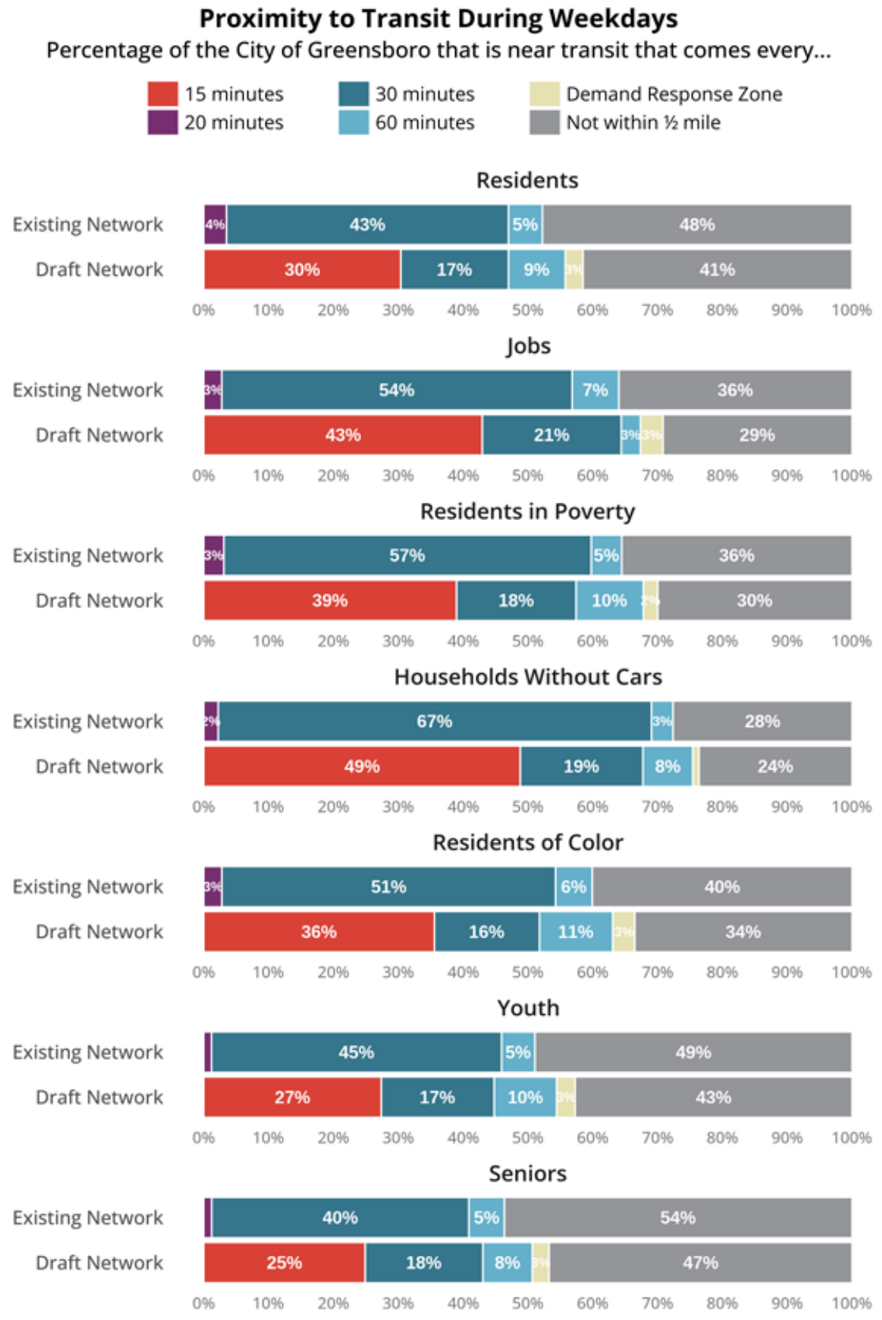


Figure 4: Comparison of Proximity to Transit in the Existing Network and the Draft Network.

What Else Is in This Report?

How We Got Here

In Chapter 2, we recap some highlights of the Choices and Concepts Report, published in September 2023, and a summary of the public engagement response that has led to the design of the Draft Network.

Detailed Description of the Draft Network

In Chapter 3, we describe the Draft Network in detail. We lay out the key features which make this network different from the Existing Network, including the hours of service across the week.

Change in Outcomes: Access and Proximity

Elements of the service like frequency and span tell us a great deal about how useful transit is, but they do not tell us everything about how transit service interacts with people, jobs, and opportunities in Greensboro. In Chapter 4, we discuss in detail two important outcomes of the Draft Network compared to the Existing Network: proximity to transit, and access to jobs.

Additional Draft Plan Recommendations

In Chapter 5 we discuss the additional elements of the Draft Long-Range Transit Plan that complement the Draft Network. This includes recommendations for a phased implementation of the Draft Network and recommendations for Transit Oriented Development Policies to support the Network.

Next Steps

This report presents the draft of the recommended Long-Range Transit Plan. Through May and June 2024, stakeholders, elected officials, bus riders, and members of the general public will be invited to respond to the elements of this Draft Transit Plan.

We will gather their input through online and paper surveys, in-person outreach at transit stops and community events, consultation with a committee of key stakeholders, and public meetings. **This input will be crucial in finalizing the GoBORO Long-Range Transit Plan.**

For more information about the surveys and outreach event dates, please visit: https://bit.ly/goboro_site.

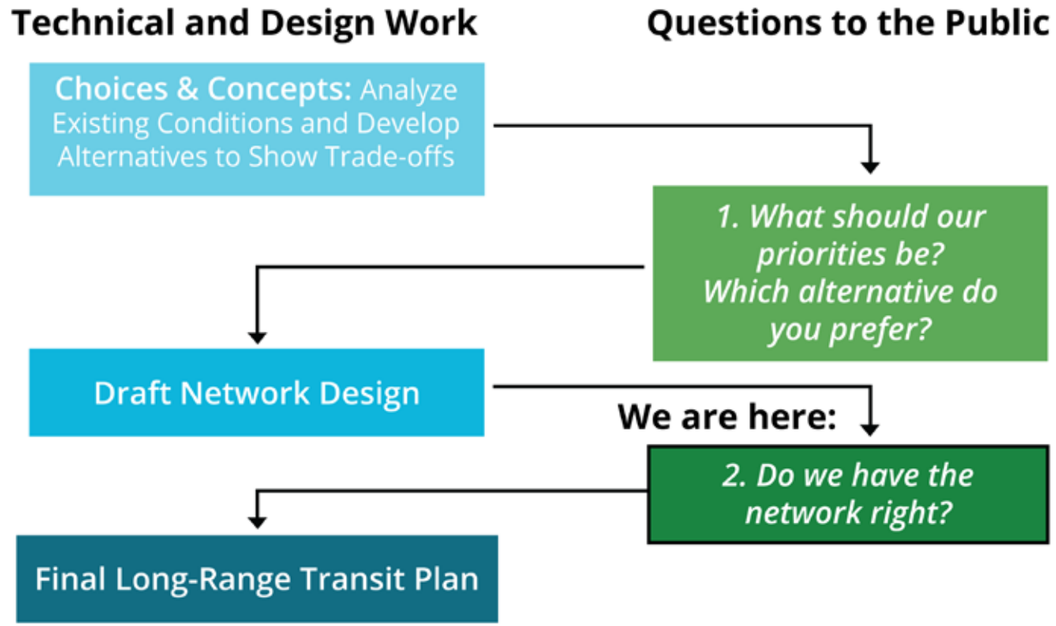


Figure 5: Process of Technical Work and Public Engagement Guides GoBORO.

2 How We Got Here: Key Choices

The Key Choices

In the first phase of GoBORO, the project team began with a detailed analysis of the existing conditions and laid out the choices that would play a key role in Greensboro's long-term car-optional vision.

When thinking about the long-term future of the transit network, it is important to understand what "car-optional" means for Greensboro. There are many choices that the Greensboro community will need to make that will bring its transit service closer to fulfilling this goal.

These choices are important because they can result in very different transit networks that can have very different outcomes for the people, businesses, and institutions of Greensboro. These **key choices cannot be made by technical experts,** but must be based on the values of the Community.

Ridership and Coverage Goals Conflict

In every community, transit is expected to fulfil many goals, but these goals are often in conflict with each other.

Some goals are served by making some level of transit available in as many areas as possible. A route may serve a small number of people, but deliver a lot of benefit in their lives by giving them the option to take transit if they have no other way of traveling, providing some choice and insurance against isolation. It may also fulfill political or social obligations, for example by getting service close to every taxpayer or into every district.

We call these **coverage goals** because they are achieved by covering more areas with service, regardless of ridership.

Some goals are only served if transit is very useful for many people, so that many people choose to use transit. For example, transit can only mitigate congestion and pollution if many people choose the option of taking the bus rather than driving. The same is true for transit as a choice for people to access jobs and opportunities. Transit is only effective at these goals if it is very useful to most people. We call these **ridership goals** because they are achieved by designing service to obtain high ridership.

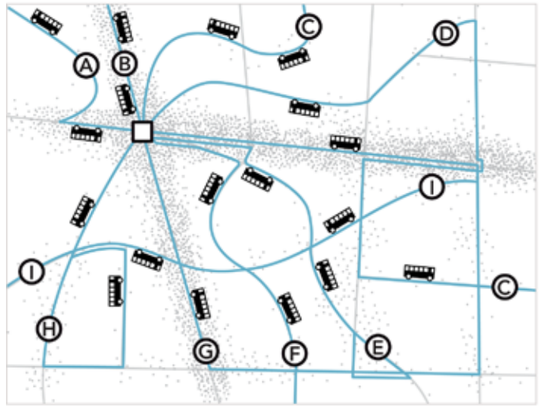
All transit agencies must balance the competing goals of high ridership and extensive coverage. Within a limited budget, if an agency wants to do more of one, it must do less of the other. As an illustration, consider the fictional town in Figure 6. The dots are homes and jobs, and the lines are roads. Most people and jobs are concentrated along two main roads.

If the town were **pursuing only coverage goals,** it would spread out services, as in the network on the left. Every street would have a bus route, but all routes would be infrequent and require long waits, even in the busiest places. Transit wouldn't be useful for most people, but everyone would have the option to ride transit if they need to.

If the town chose to **pursue only ridership goals,** it would focus its service on the two main roads with the most people and jobs, as in the network on the right. The straight routes would feel direct and fast to customers. But most importantly, frequencies are high because service is concentrated. Many people would choose to ride transit because it would be useful for their journeys.

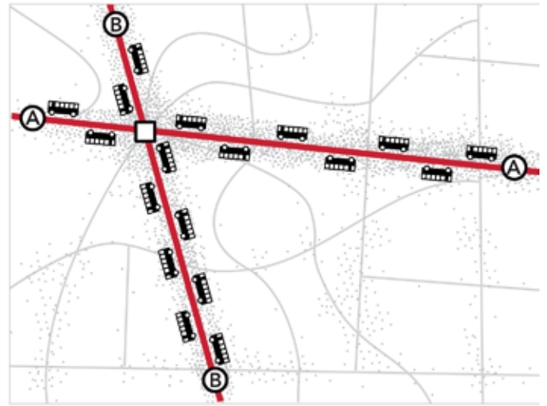
The two networks need the same number of buses and cost the same to operate, but deliver very different outcomes.

If you maximize coverage...



...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.

If you maximize ridership...



...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.

Figure 6: Comparing an imaginary town, if transit were run with the goal of providing a little service near everyone, to the same town if transit is run with the goal of maximizing frequency and ridership.

The choice between ridership goals and coverage goals isn't a one-or-the other choice. It's a sliding scale. Every transit agency spends some portion of its budget on both.

A clear way for transit agencies to set a policy balancing ridership and coverage is to decide what percentage of their service budget should be spent in pursuit of each type of goal. **The "right" balance of ridership and coverage goals is different in every community.**

Key Choice: What Does "Car-Optional" Mean for Transit?

The trade-off between contrasting ridership and coverage goals can be directly tied to Greensboro's long-term car-optional vision. We can think of two contrasting ways of envisioning what it means to be "car-optional".

Does being car-optional mean that:

- **Everyone** in Greensboro has an option to use transit, even if for many people, transit **may not be very useful** in reaching many places and destinations in a reasonable time? Or...
- **Most people** in Greensboro have a transit option that is **very useful** in reaching many places and destinations in a reasonable time?

These two ways of thinking about the meaning of being car-optional with respect to the transit service lead to two very different, contrasting network designs and outcomes. However, they are not binary options, and no community focuses solely on one vision or another, but tries to find a balance between these contrasting visions.

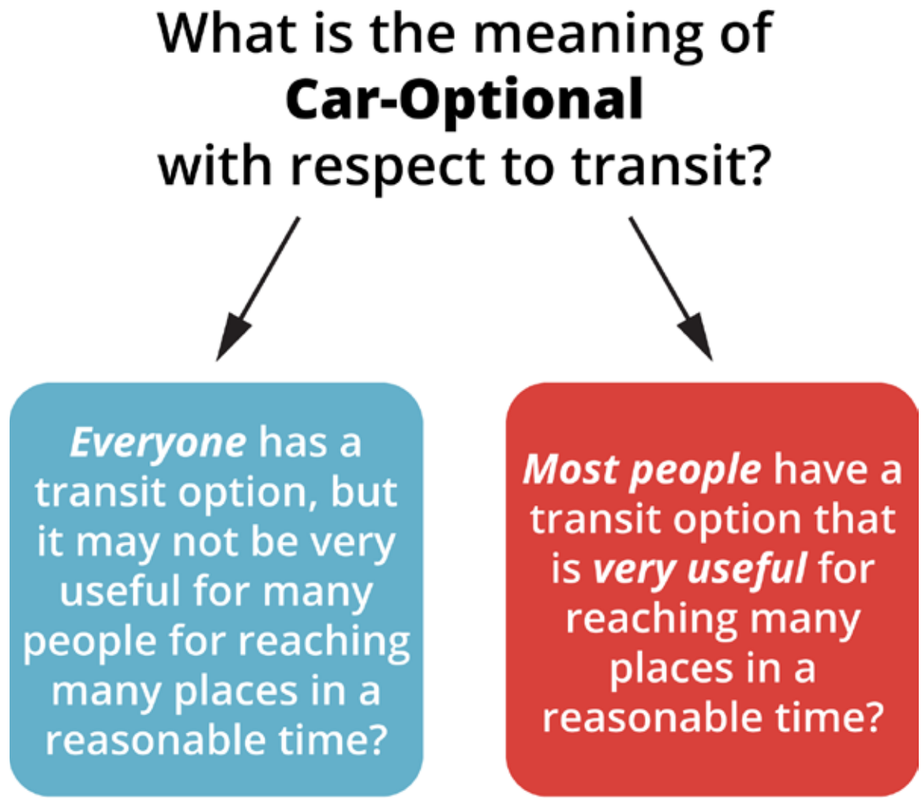


Figure 7: Two different and contrasting ways to think about what it means for transit to be an option to a car.

Key Choice: What Level of Transit Resources Is Enough?

On a fixed budget, designing transit for both ridership and coverage is a zero-sum game. Each bus that the transit agency runs down a main road, to provide more frequent and useful service there, is not running on the neighborhood streets, providing coverage.

Wrestling with the ridership-coverage balance, and changing the transit network to meet clear goals that match the community values, may improve people's sense that the transit network is delivering on their goals and is worth further investment. But **expanding the pot of resources available for transit service can help avoid painful trade-offs.**

Today, the overall level of resources for operating transit in Greensboro is very limited. **Compared to peer cities, Greensboro has the second-lowest investment in transit service relative to its population (measured as revenue hours per capita). It also has the second-lowest level of transit ridership relative to population.**

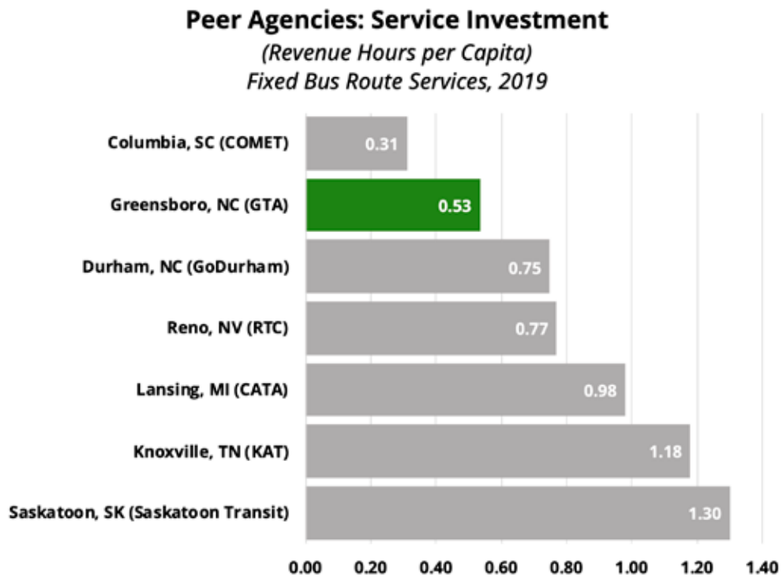
This "you get what you pay for" relationship between transit investment and its relevance to the community is shown in Figure 8. The chart on the top shows the amount of transit service GTA provides relative to the population of its service area. The bottom chart shows how many trips are made on GTA relative to its population.

Both these charts show the same numbers for Greensboro's peer cities. Generally, places that invest more in transit service relative to their population see a higher level of ridership relative to their population

In practice, this low level of resources means that service is spread thin to get transit near as many people and jobs as possible, across a wide area. As a result, there are almost no frequent routes in the system, and many routes have large one-way loops and mid-route splits. Weekend and evening frequencies are even lower. Transit is not very useful for the journeys of large numbers of people, so ridership is low.

And yet (despite the service being spread so thin) only about 52% of residents and 64% of jobs are near some level of transit service. **The current low level of transit resources makes it hard to achieve either many coverage goals or many ridership goals.**

What level of investment in transit is needed to meet Greensboro's "car-optional" goal?



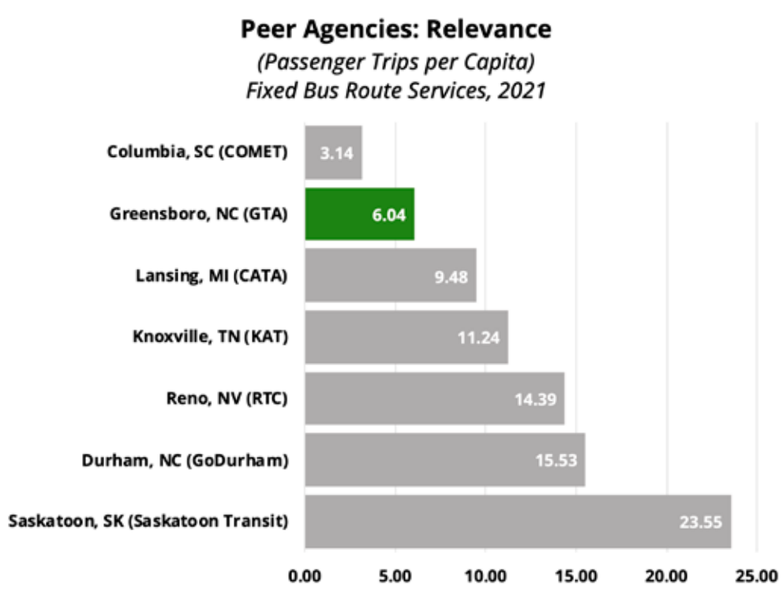


Figure 8: Revenue Hours per Capita (Investment) and Passenger Trips per Capita (Relevance) for Greensboro compared to peers shows the principle of "you get what you pay for" in terms of transit ridership compared to transit service provided. Source: National Transit Database, 2021.

Network Concepts to Demonstrate Key Choices

To spark a conversation about transit needs and goals in Greensboro, the project team got together with staff from the City of Greensboro, GTA, and PART in a charrette-style multi-day workshop and designed two different Conceptual Networks, which:

- Contrast each other to illustrate two opposite ways in which Greensboro could invest these increased resources in its transit network, but...
- Together illustrate the kind of transformative changes possible in the outcomes of transit service that people value, if Greensboro invested significantly more in its transit service.

The Coverage Concept expands transit service to many new areas in and around Greensboro, which means that many more people and jobs will be closer to transit than they are today. But most routes will not be frequent, and transit may not be very useful for a lot of people. 60% of GTA's resources in this Concept go towards fulfilling coverage goals and 40% go towards ridership goals.

The Ridership Concept concentrates frequent, useful service where there are more residents and jobs, and where transit can run in linear, direct paths. But there will be less resources to expand transit to new areas not served today. 80% of GTA's resources in this Concept go towards fulfilling ridership goals and only 20% towards coverage goals.

Both Conceptual Networks assume more than twice as many resources as today available to run transit. This was a deliberate choice on part of the project team. As part of this project, we wanted to start a conversation about whether Greensboro should invest more in its transit network.

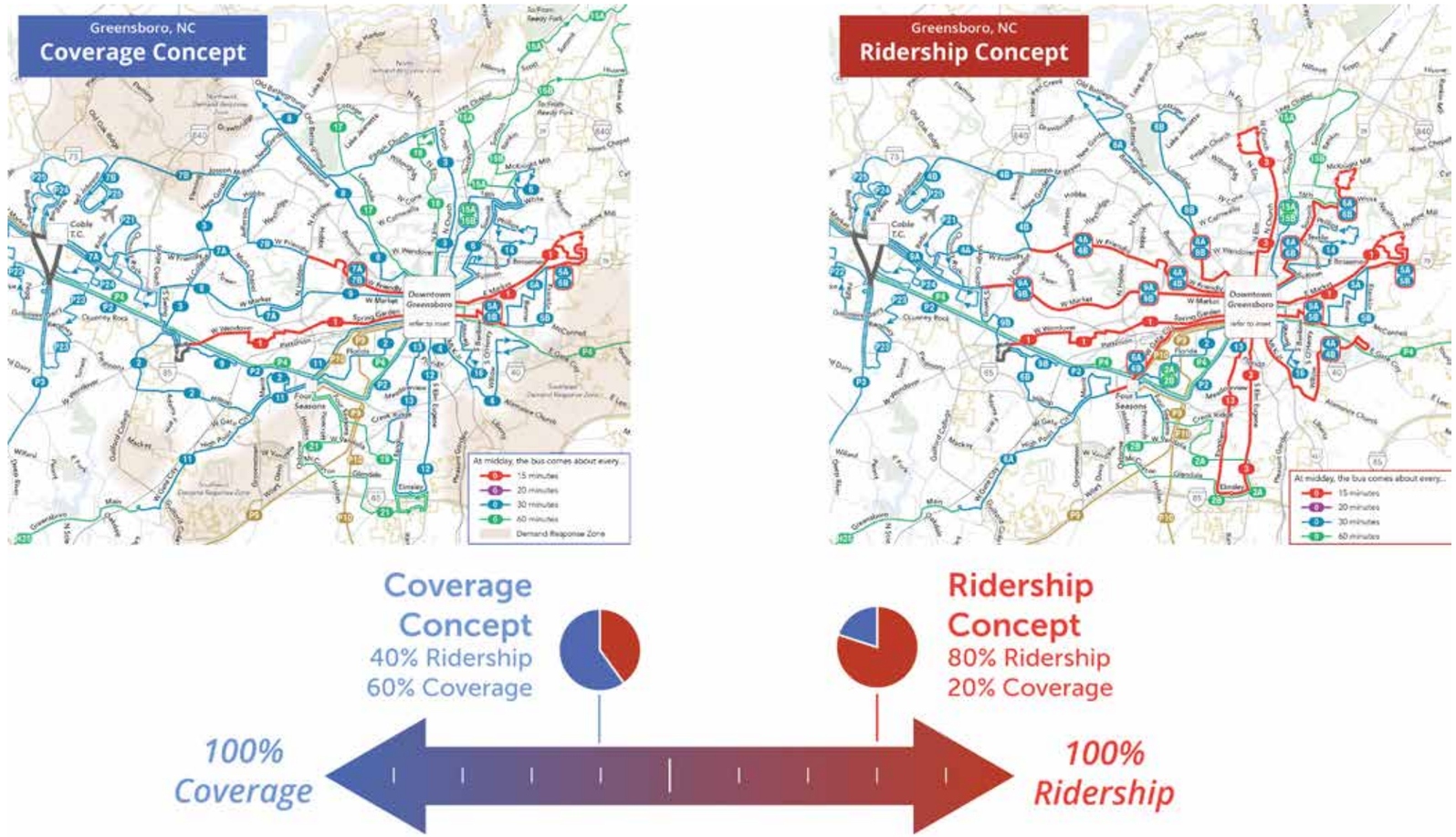


Figure 9: The Coverage Concept and Ridership Concept on a sliding scale of how to distribute resources between competing goals.

Engagement on Key Choices

In the first round of public engagement during Fall 2023, the project team went to elected leaders, key stakeholders, and the public for their input on the key choices for Greensboro's long-term transit network. As part of this engagement effort, the team:

- Published the Choices and Concepts Report, which contains an in-depth analysis of the existing conditions and presented the Conceptual Networks in detail,
- Briefed elected officials and regional agency leaders,
- Conducted a workshop with key stakeholders in the Greensboro community,
- Held a media event and conducted extensive outreach through social media,
- Hosted a virtual public workshop,
- Held pop-up events at various locations throughout Greensboro, and
- Attended various public events and festivals.

At each of these events and online, we publicized a web survey to gather public input, and we also conducted in-person web and paper surveys at these events and onboard GTA buses and at the Depot. Surveys were available in various languages: English, Spanish, French, Arabic, Khmer, and Rhade.

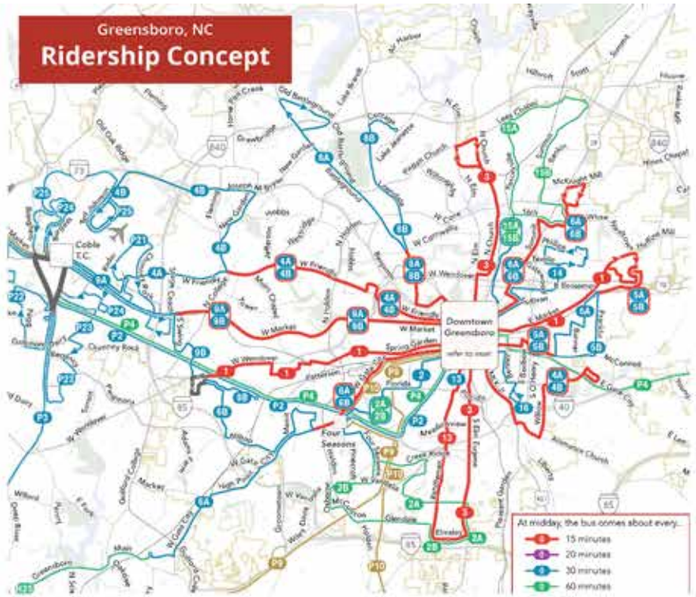
As a result of this extensive outreach, **we got more than 1,800 survey responses.** This provided a solid base for City leaders to develop a policy direction for GoBORO. Key takeaways from the public input and direction from the City Council are presented on the next two pages.

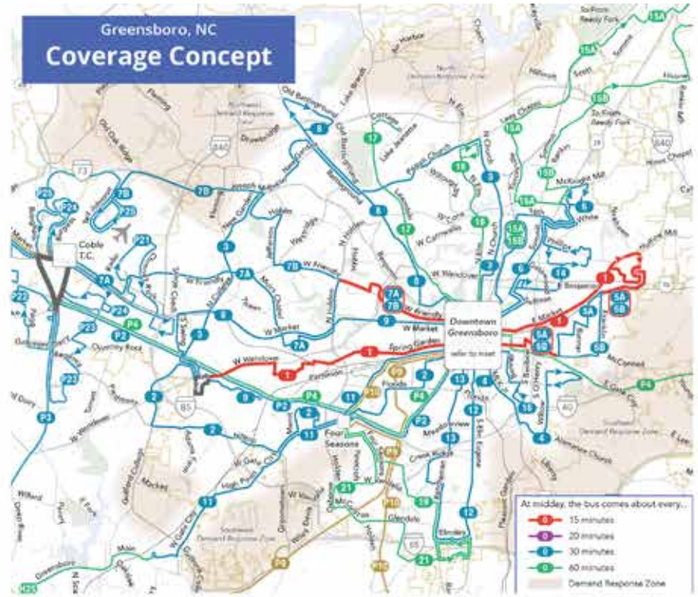
Figure 10: We conducted an extensive public and stakeholder engagement effort for the key choices for GoBORO.

Public Input on Key Choices

As part of the first phase of public engagement, we presented the Ridership and Coverage Concepts in online and in-person surveys, and described the changes in outcomes each Concept would have relative to the Existing Network. We collected respondents' input on the following key choices:

- Their preference for the Ridership Concept or Coverage Concept,
- Their support for increasing funding for improved GTA service, and
- Whether they would support investment from a dedicated ½-cent Sales Tax to fund a significant increase in service.





A Preference for Ridership

A majority of respondents (52%) showed a preference for the Ridership Concept, with more than a quarter (27%) saying that they strongly preferred it. Around a third of respondents (33%) showed a preference for the Coverage Concept. Figure 11 shows the overall distribution of responses to the Concepts.

We also broke down people's preferences depending on how often they rode transit, their household income, race/ethnicity, and age. **Across every category, more people prefer (or strongly prefer) the Ridership Concept than the Coverage Concept.** But the degree of preference varies by category.

Regular bus riders, people with lower incomes, and People of Color tend to more strongly prefer the Ridership Concept than non-regular riders, people with higher incomes, and people who identify as Non-Hispanic White/Caucasian, respectively. Younger respondents prefer the Ridership Concept more than older respondents.

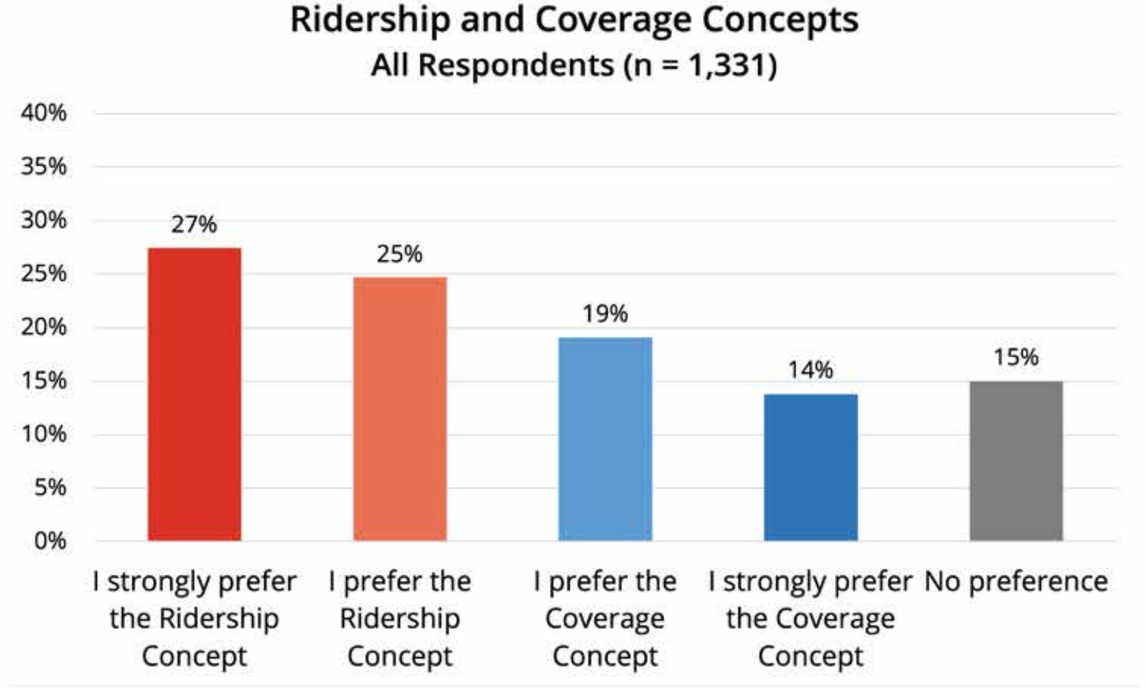


Figure 11: Distribution of the preference for the Ridership Concept versus the Coverage Concept.

Strong Support for More Transit Resources

When asked whether they support increasing how much local funding the City of Greensboro budgets for transit, a large majority of respondents (85%) said that they would support some increase in funding (Figure 12). A majority (52%) said they would support a big increase in funding. Only 15% of respondents opposed increasing funding available for transit service.

Across every category, a large majority of respondents (at least 84%) supported at least some increase in funding for transit. A majority or near majority of people in each category (47% to 63%) supported a big increase in transit funding.

We presented the idea of a County-wide ½-cent Sales Tax that could serve as a dedicated funding source for the level of increase in transit service investment shown in the two Concepts. Figure 13 shows the overall breakdown of responses.

A large majority of respondents (80%) also supported this, and nearly half the respondents (47%) strongly supported this investment. Slightly more respondents expressed opposition to the Sales Tax idea (21%) than to increasing funding in general (15%) in the question above. Yet this is still a much smaller portion than those who support a tax.

For this question too, **the pattern of support for the Sales Tax was consistent across every category of respondents. At least 78% expressed support for it** and at least 44% strongly supported it.

Survey respondents broadly supported a sales tax investment in transit and strongly supported more transit investment.

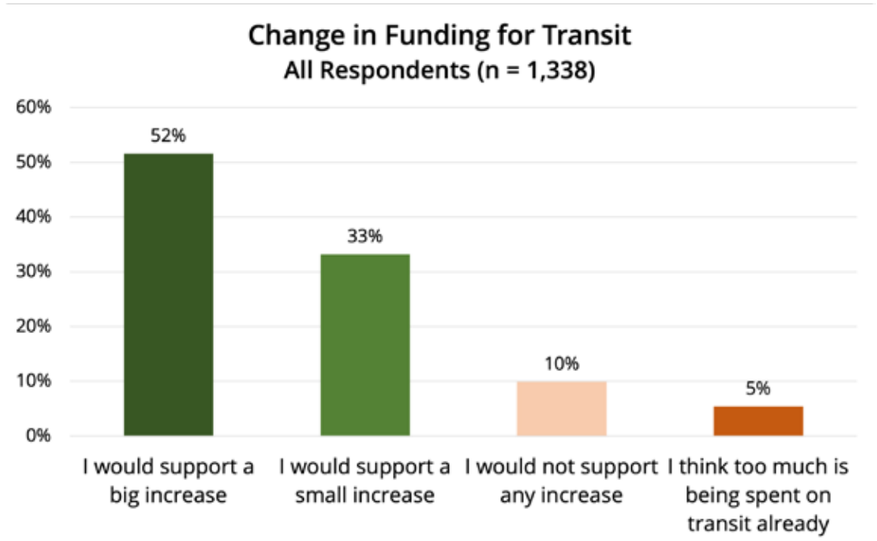


Figure 12: Distribution of the level of support for additional funding for GTA.

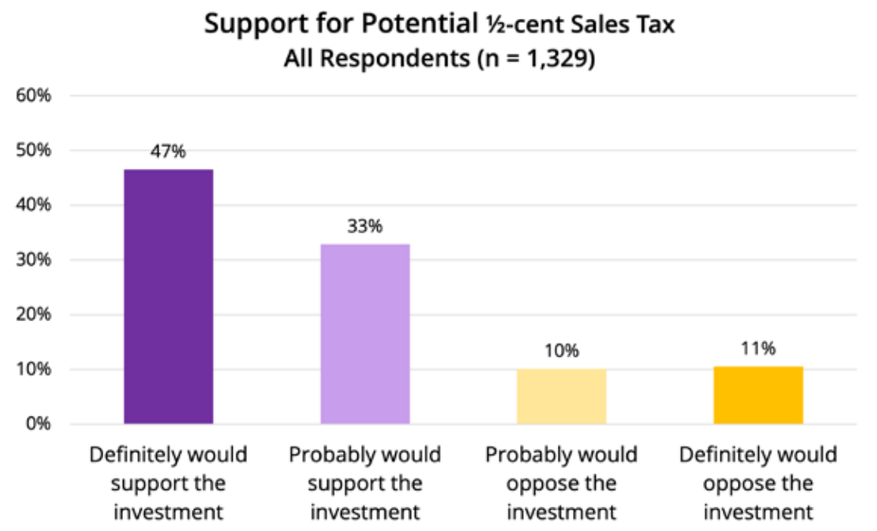


Figure 13: Distribution of the level of support for additional funding from a potential ½-cent Sales Tax.

3 The Draft Network

What Is the Draft Network?

The Draft Network is a long-term vision for the GTA Network in GoBORO that is based on what we heard from the public, stakeholders, and City leaders about the Greensboro community's preferences and vision to support its car-optional goal.

Policy Direction for the Draft Network

We presented the findings from the first phase of public engagement to the Greensboro City Council in December 2023. We asked for direction for the two key choices for designing the GoBORO Draft Network:

1. **Ridership/Coverage Balance:** How should GoBORO balance the competing priorities of Ridership and Coverage?
2. **Level of Investment:** Should we assume a higher level of investment from a county-wide sales tax (or some similar level of funding)? Should we assume less?

Based on the public input, the City Council provided us with the following direction:

1. **Ridership/Coverage Balance:** The Council recommended that **70% of transit resources in the GoBORO Draft Network be spent to pursue ridership goals, and 30% be spent towards coverage goals.** This means that the Draft Network would have a ridership-coverage resource balance that is quite close to the Ridership Concept but a quarter of the way towards the Coverage Concept. This is shown in Figure 14.
2. **Level of Investment:** The City Council recommended a regional study that would support a County-wide referendum on the ½-cent Sales Tax. This study will feature much deeper collaboration with the City of High Point, PART, and Guilford County, to define the improvements funded through all four partners in the County. **The GoBORO Draft Network assumes that such level of funding is available in the long term.**

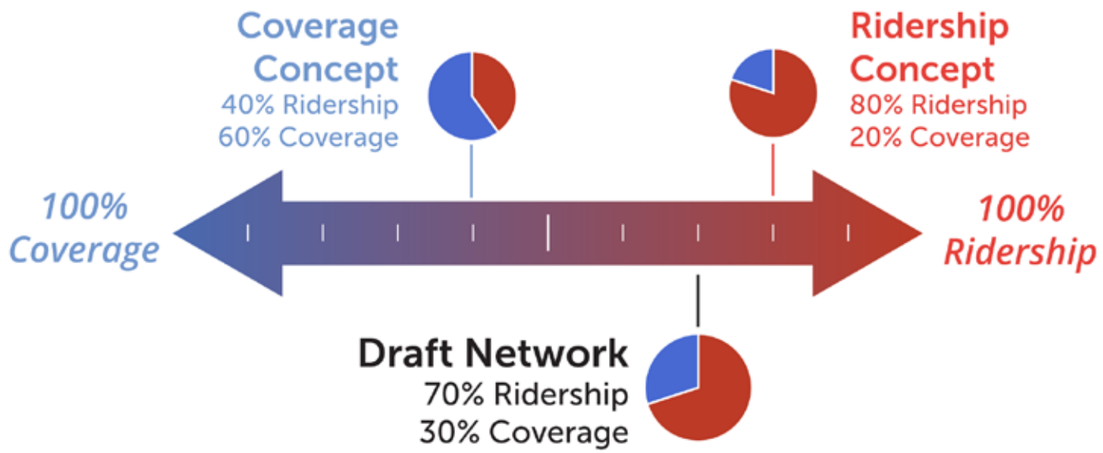


Figure 14: 70% of resources in the Draft Network are used to fulfill ridership goals, and 30% for coverage goals.

Exploring the Draft Network Map

Color Means Frequency

Color shows the frequency of that bus route during most of the day. **Red** means every **15 minutes, blue** is every **30 minutes, green** is every **60 minutes,** and **tan** means limited service or Demand Response Zones.

Branching Routes

There are some routes which share a significant common segment, and are grouped together. It is possible to coordinate buses on these routes, so that these **branch routes** can provide a higher frequency on that **common trunk segment**. We show these trunk segments with the color of the combined frequency, and the branches at their lower frequencies. **The trunk segment is not a separate route, but shows routes with coordinated timetables to double the frequency in that segment.**

Route Numbering

Routes in some areas may have a different number than the routes that run in that area today, or they may have similar numbers as today. Branch routes in trunk-branch sets have the suffixes "A" and "B".

Figure 15: "Branch" routes combine to provide a higher frequency on their shared "trunk" segment. Such routes have the suffixes "A" and "B".

The Draft Network

Frequent Crosstown Routes

The map on the right shows the predominant frequency on each route during most of the day in the Draft Network. Many major corridors radiating out of Downtown have a frequency of every 15 minutes, shown in red. In the Existing GTA network, most routes run at best every 30 minutes.

Another major difference from the Existing Network is that these routes do not end at the Depot, but continue through Downtown and out along a corridor on the other side. This creates **many more frequent crosstown one-seat rides:**

- Routes 1A and 1B are the **recently launched Crossmax Purple service** from GTCC Greensboro along East Market Street to Downtown, and continuing West along Spring Garden Street and West Wendover Avenue. Every other bus then goes every 30 minutes to either Sapp Road (1A) or Koger Boulevard (1B).
- Route 3 from South Randleman Road serves the Depot and continues northward along North Elm and North Church Streets.
- Route 4 provides 15-minute frequency along East Florida Street, Willow Road, and M.L.K. Jr. Drive, serves the Depot, and continues along West Friendly Avenue to Friendly Center. Beyond that, every alternate bus continues onward and provides 30-minute service to Coble Transportation Center.
- Routes 5A and 5B alternate to provide 15-minute service from GTCC Greensboro. They split in Eastern Greensboro to provide coverage at every 30 minutes. They rejoin to provide 15-minute service along McConnell Road and Gorrell Street, serve the Depot, and then head westwards along West Market Street, all the way to Guilford College Road. There, Route 5A deviates South but soon gets back on West Market Street to PART's Coble Transportation Center

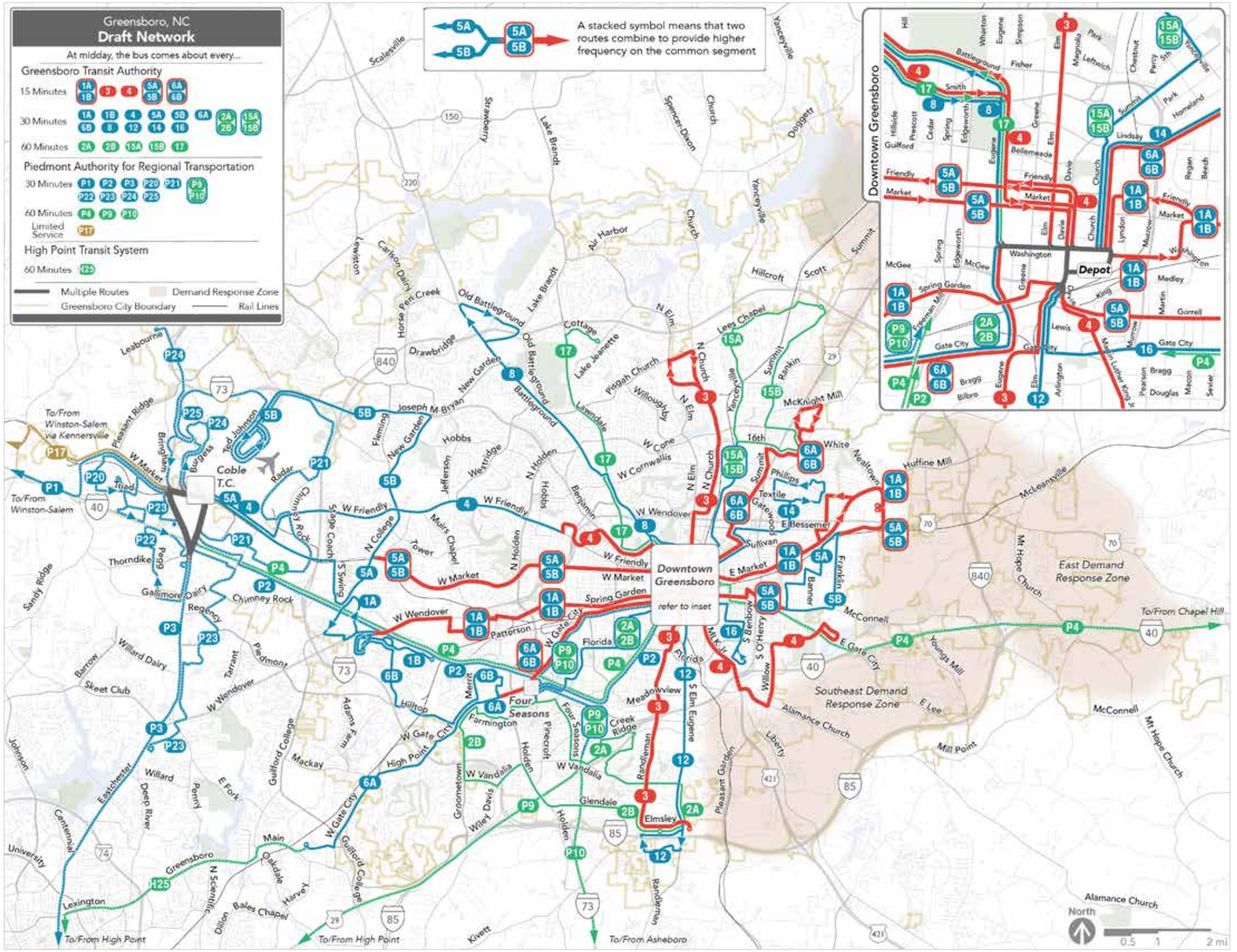


Figure 16: Map of the Draft Network with routes color-coded by frequency during the middle of the day.

(CTC). Route 5B goes North along Guilford College Road and New Garden Road, on to PTI Airport and then CTC.

- Routes 6A and 6B provide 15-minute service from Pyramid Village along Summit Avenue and East Lindsay Street, serve the Depot, and then go along West Gate City Boulevard, separating just West of Four Seasons Town Centre.

Some New Coverage

The Draft Network focuses more resources towards ridership goals. Concentrating service into frequent routes in the densest and busiest areas means that relatively fewer resources are available to provide transit in new areas away from the core of Greensboro not served by transit today. Still, several areas get new transit service:

- Creek Ridge Road, Lynhaven Drive, and Greenhaven Drive (Route 2A)
- Hester Park and Groometown Road (Route 2B)
- West Friendly Avenue to CTC (Route 4)
- West Market Street to CTC (Route 5A)
- New Garden Road, North College Road, and PTI Airport to CTC (Route 5B)
- Hilltop Road and Stanley Road (Route 6B)

Demand Response Zones

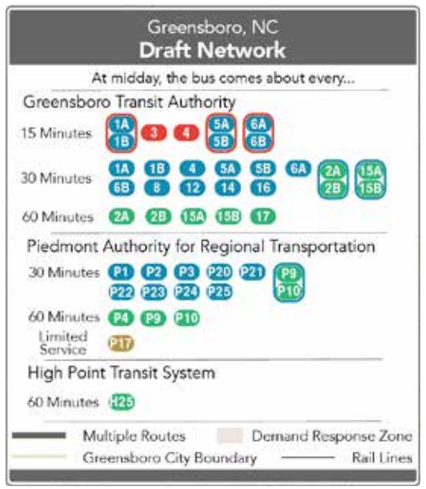
The Draft Network map also has some **tan-colored areas,** which are "Demand Response Zones". Within these zones, passengers will have to request a pickup and wait between 20 to 40 minutes. The zones have timed arrivals and departures at nearby transit hubs, where people can connect to and from fixed routes. This type of service is effective in providing wide coverage in low-density areas with disconnected streets, like Reedy Fork, Eastern Greensboro, and Southeastern Greensboro. These zones will add transit coverage for Bryan Park, Keeley Park, and the Publix Distribution Center.

Downtown Network

The map on the right shows the Downtown Network in the Draft Network. Some key differences from the Existing Network include:

- Route 3 runs continuously along North Elm and South Eugene Streets except a short deviation to get close to the Depot.
- Routes 4, 8, and 17 run two-way on North Eugene Street.
- Routes 6A, 6B, and 14 run two-way on North Church and East Lindsay Streets.

Routes 2A, 2B, 8, 14, 15A, 15B, 16, 17, and 18 end at the Depot and are not crosstown routes.



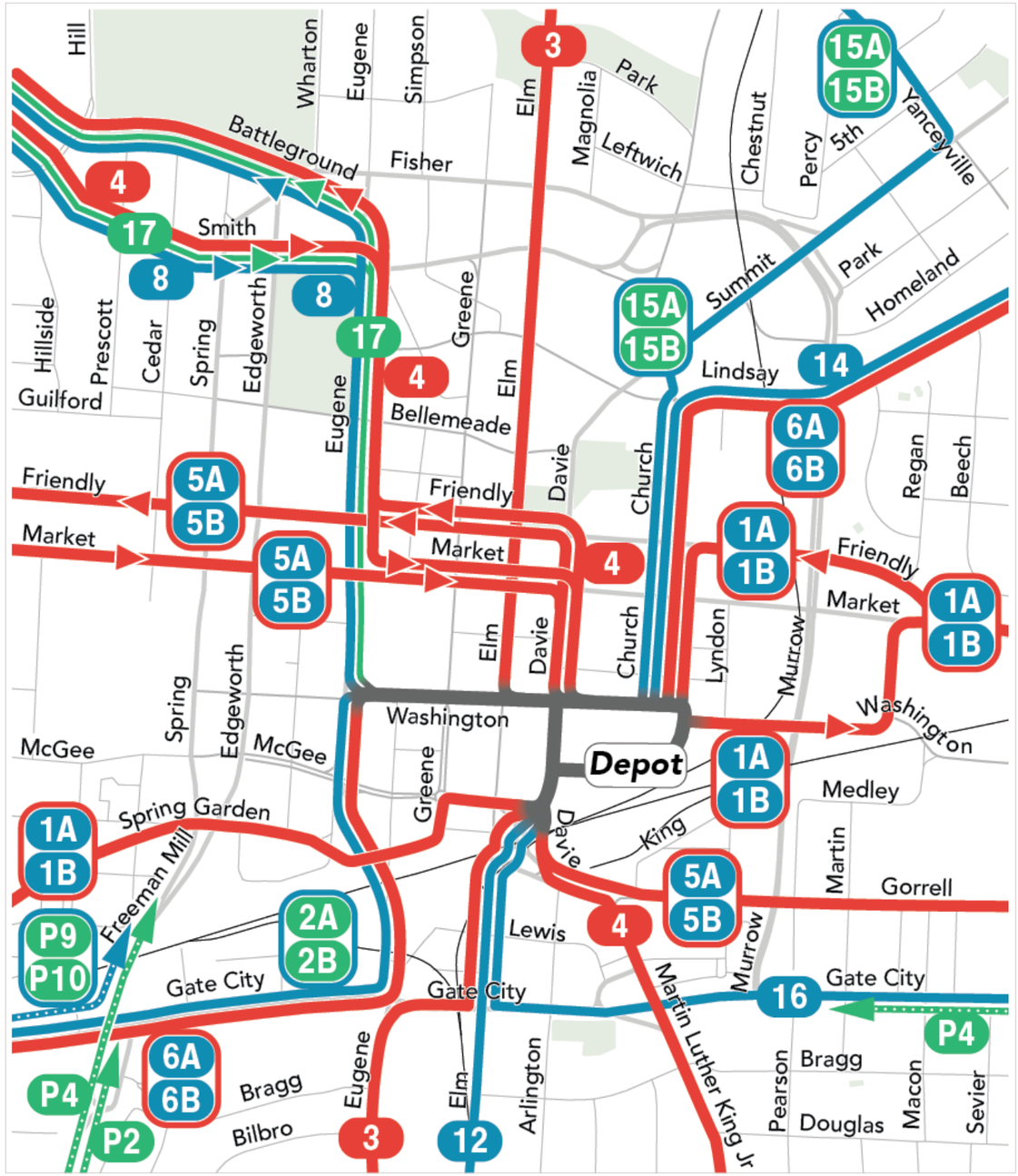
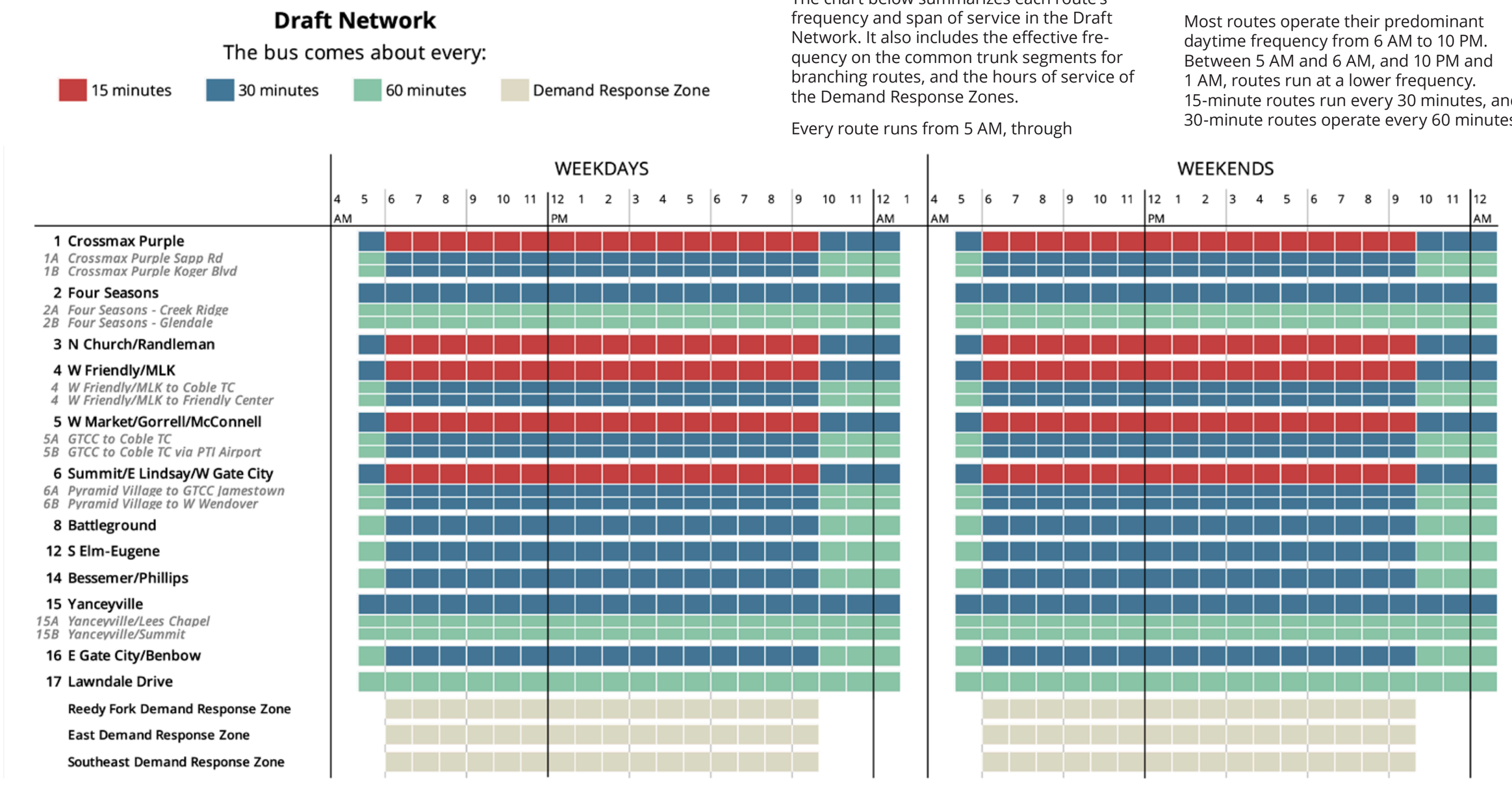


Figure 17: Map of the Draft Network in Downtown Greensboro.

Figure 18: Hours of service and frequency by hour on weekdays and weekends for routes in the Draft Network.



Frequency and Span of Service

The chart below summarizes each route's frequency and span of service in the Draft Network. It also includes the effective frequency on the common trunk segments for branching routes, and the hours of service of the Demand Response Zones.

Every route runs from 5 AM, through midnight, until 1 AM on the next day. Demand Response Zones operate from 6 AM to 10 PM. Service patterns are consistent seven days a week.

Most routes operate their predominant daytime frequency from 6 AM to 10 PM. Between 5 AM and 6 AM, and 10 PM and 1 AM, routes run at a lower frequency. 15-minute routes run every 30 minutes, and 30-minute routes operate every 60 minutes.

4 Outcomes of the Draft Network

Comparing Outcomes

The design of the Draft Network, and when and where service operates, are important to think about how service changes might affect people and their trips, but they tell us only so much about the overall effects of the network.

In this Chapter we look at **three ways of measuring potential outcomes** of the Draft Network. These measurements are not forecasts. They do not need to make assumptions about how culture, technology, prices or other factors will change over time.

These are simple arithmetic measures that combine existing distance, time, population, and job data to show the potential of the Draft Network and how it differs from the Existing Network[1].

Isochrones

To understand the benefits of a network change, one could ask: **Where could I get to with transit, in a reasonable amount of time, from where I am?**

Wherever you live, there is a certain area you can reach in a reasonable amount of time. You could draw a map of this area, and it would appear as a blob, with you at the center. In this blob are things you can use transit to get to: workplaces, schools, shopping, and anything else you might want to do. The more things this blob, the **more useful transit can be as an option** for travel.

1 The Crossmax Purple service was implemented when we were writing this report. The analysis of outcomes in the Draft Network is based on a comparison with the GTA Network in Spring 2023, which is when the GoBORO process started. This also makes the estimates of the change in outcomes comparable to those we presented for the Ridership and Coverage Concepts in Phase 1 of public engagement.

The technical planning term for this blob is an **"isochrone".** Isochrones visually explain how a transit network changes peoples' freedom to travel to or from a place of interest. They help visualize a person's access to jobs, schools, groceries, medical care, or any other opportunity.

Isochrones to Access

Isochrones show the access for a person from one particular place. By **adding up the access from isochrones across the entire city,** we can describe how access would change, on average, for all residents (or groups of residents) and to all opportunities.

For comparing transit networks, an access analysis is better than a ridership forecast, because it describes the part of ridership forecasting that is basic math and geometry and therefore highly predictable.

Proximity

Another simple question you could ask is: **How many residents and jobs are near transit?**

Proximity is a measure of the coverage a transit system provides. If resources are spread out to provide some service in lots of areas, more people and jobs will be near transit. A network that provides better proximity outcomes provides **an option of transit** to more people and workplaces.

However, proximity by itself does not tell us how useful it could be to people, only that it is nearby to them. We also report on proximity to transit by the frequency of service, to provide a little more information about how many people are near service that is more likely to be useful because of its frequency.

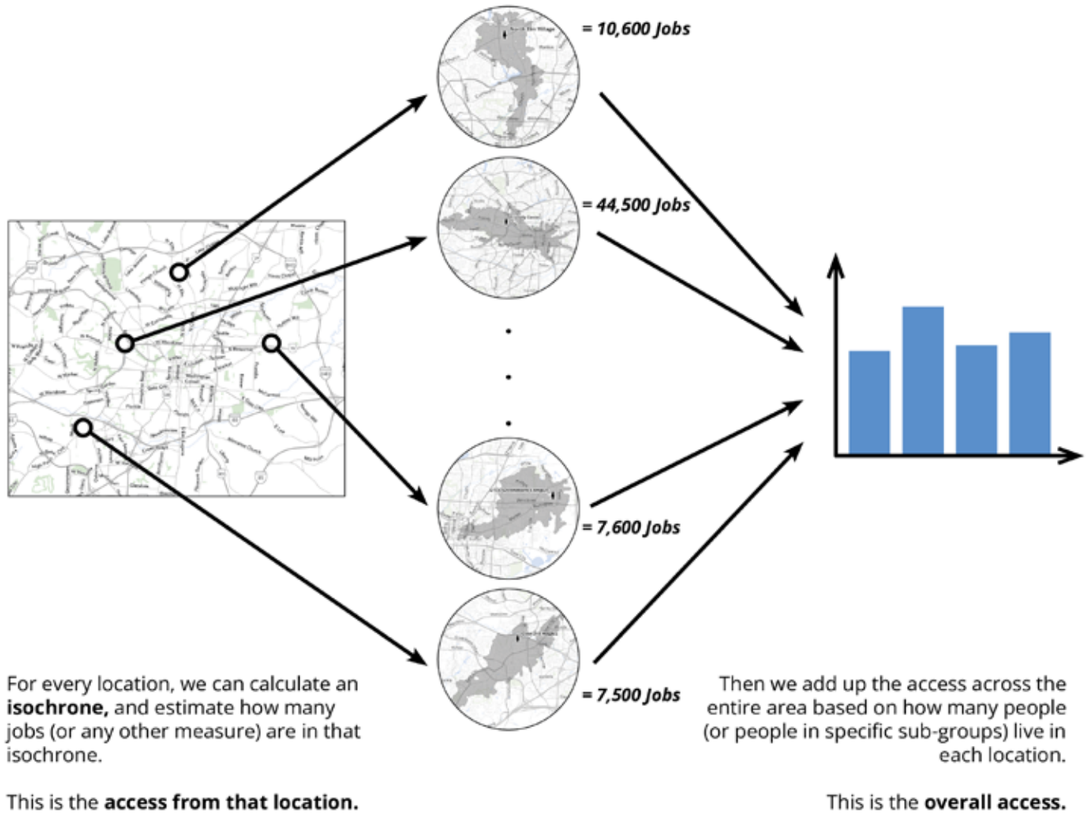


Figure 19: How you get from isochrones to access.

Proximity is a measure of the *coverage* transit provides, while access is a measure of the *usefulness* of transit.

Which measure is more important to you depends on your values and priorities.

Isochrones

People ride transit if they find it useful. A helpful way to illustrate the usefulness of a network is to visualize where a person could go by transit and walking, from a given location, in a given amount of time. The technical term for this illustration is "isochrone".

A more useful transit network is one in which these isochrones are larger and have more potential destinations in them, so that people are likely to find the network useful for more trips.

The map on the right shows isochrones from the Downtown Depot in 45 minutes at midday on a Weekday in the Draft Network and the Existing Network. Dark purple represents areas that are reachable today and remain reachable in the Draft Network in 45 minutes. Areas that are newly reachable are shown in light purple, and areas that are no longer reachable are shown in gray. More examples of isochrones are included on the next page and in Appendix A.

These isochrones include all the different parts of a transit trip that take time:

- Average wait time to use a bus.
- Time riding in the bus.
- Any time needed to make a transfer.
- Time walking to the bus stop where you start your trip, and walking away from the stop where you get off.

While reviewing these maps, it is also important to note that **it is not just how large an isochrone is, but also what is inside the isochrone that matters.** This is the access from a particular location. The maps include an estimate of the additional number of jobs and residents you could reach in the Draft Network, compared to today.

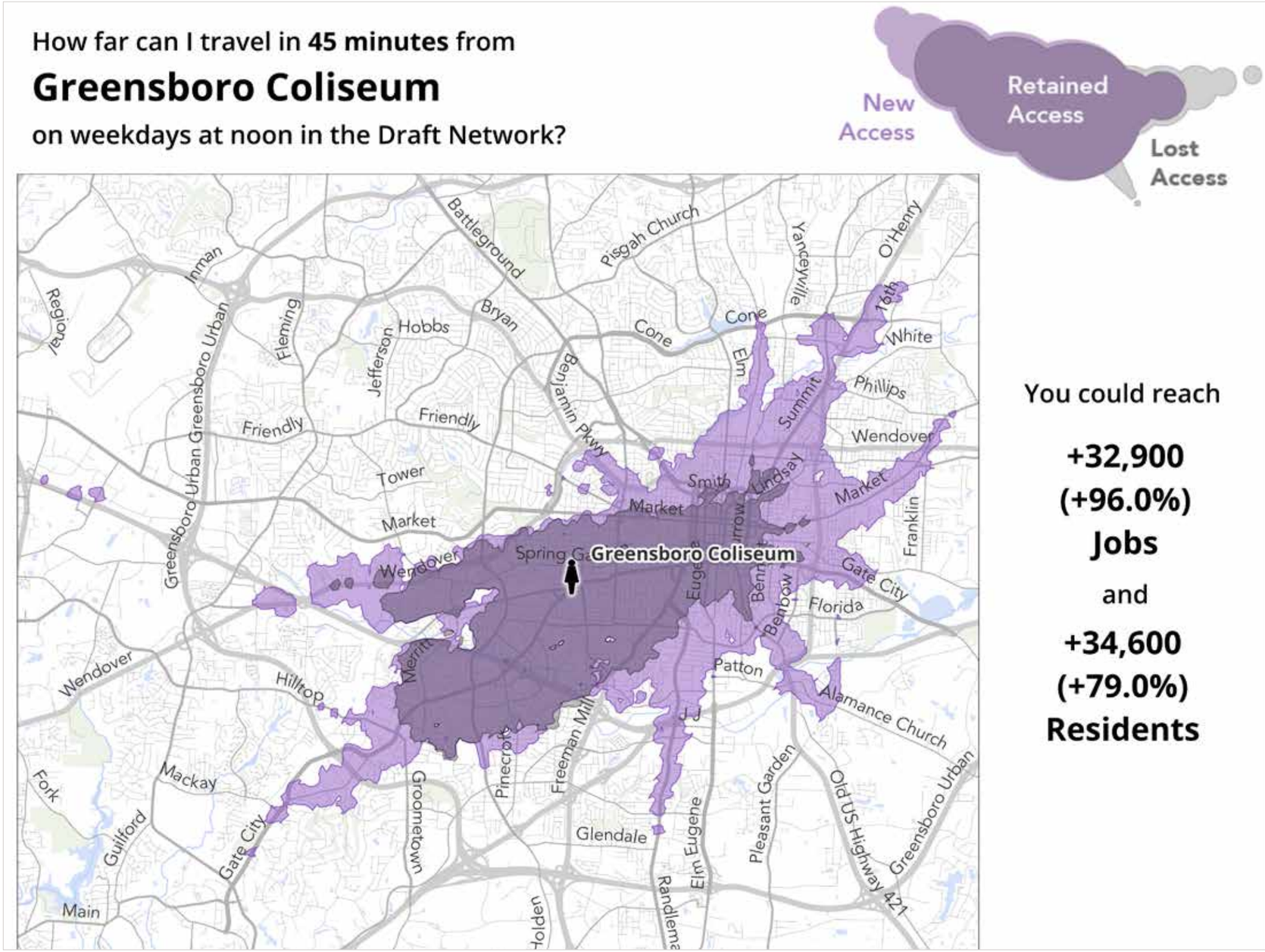
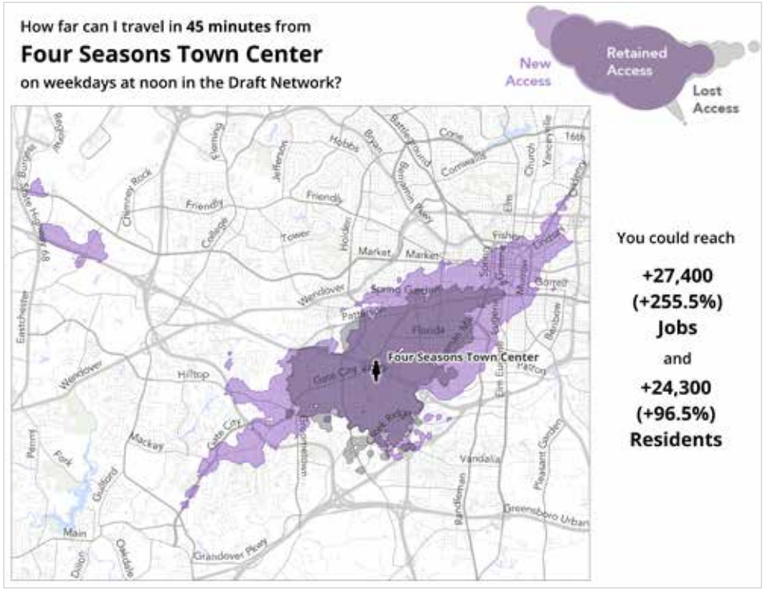
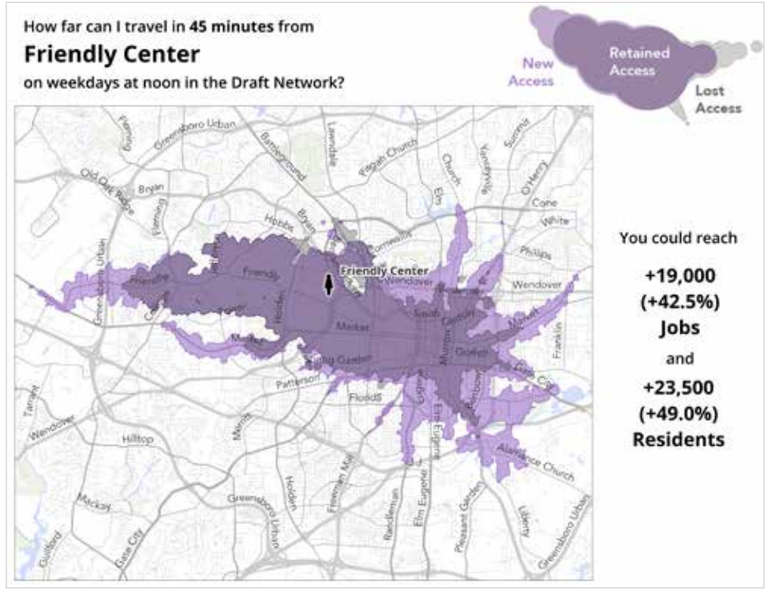
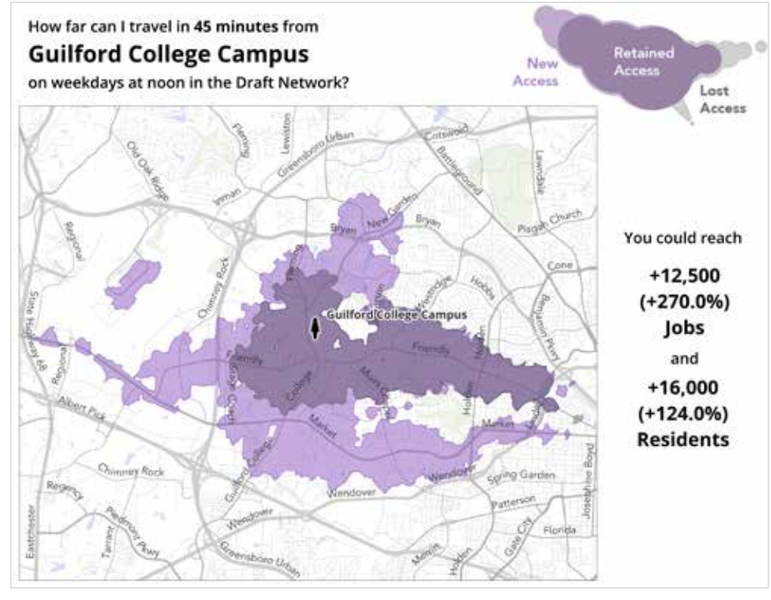
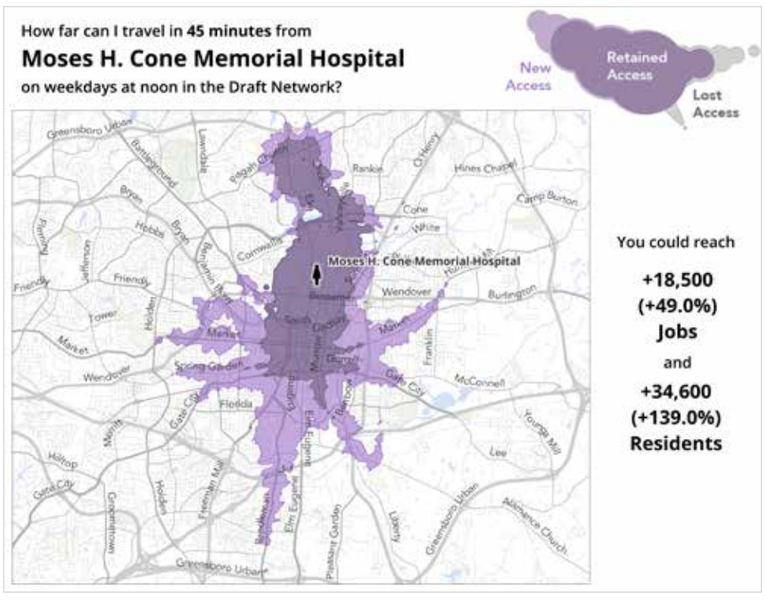


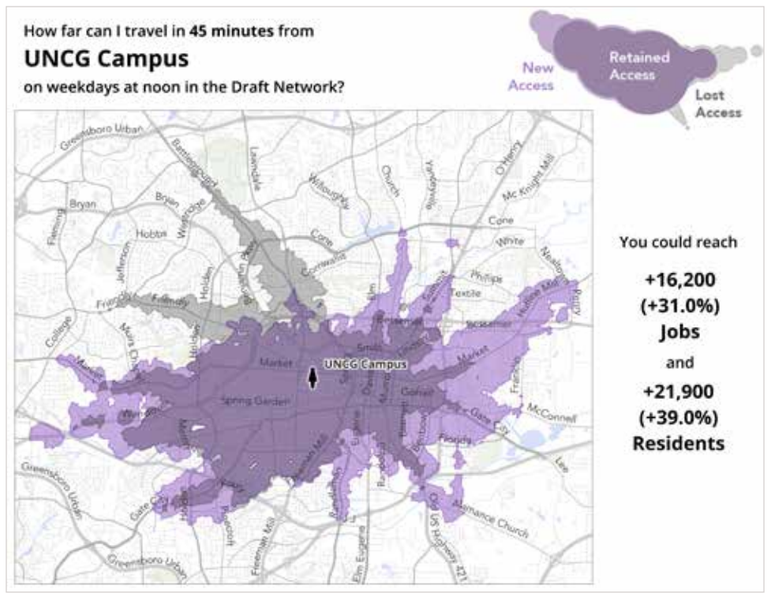
Figure 20: An isochrone shows how far someone can go, in a given amount of time, by walking and riding transit. This isochrone map from the Greensboro Coliseum show change in access to jobs and residents in 45 minutes in the Draft Network.











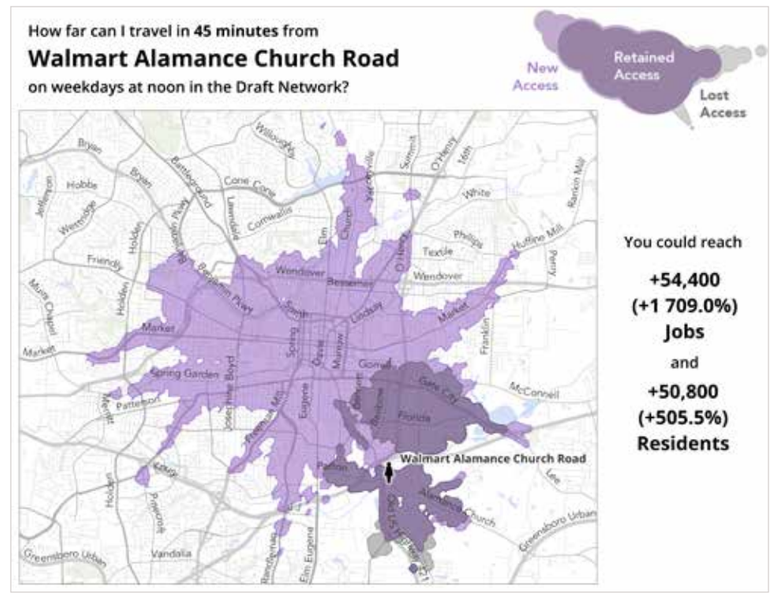


Figure 21: Comparative Isochrones Showing How Far People Can Go in 45 Minutes Using Transit From Various Locations in Greensboro in the Draft Network (See Appendix A for more locations).

Access Change

The previous maps show how the Draft Network changes where people could go in a given time, from certain places in Greensboro (access to other opportunities, like education and shopping would likely change in a similar way).

We can run the same analysis on locations throughout the City to estimate how each concept changes access to jobs and opportunities across all of Greensboro. The map on the right illustrates this change across the City.

Places where people want to go for opportunities other than work — like shopping centers, colleges, universities, hospitals — also often have a lot of jobs. One person's job can be a destination for many people throughout the day. This is why we measure access to jobs. It corresponds to these other opportunities that people also want to reach.

Every hexagon's color represents the change in the number of jobs that can be reached in 45 minutes, compared to the Existing network. Purple hexes represent more jobs accessible and orange hexes represent fewer jobs available. Where no hexes are shown, there is very little change (less than 1,000) in the number of jobs accessible within 45 minutes from that location in the Draft Network.

The Draft Network drastically increases access to jobs and opportunity throughout the densest and busiest parts of Greensboro close to Downtown, as seen in the deep purple shades that represent an increase of more than 20,000 jobs reachable within 45 minutes. Transit can be much more useful in these parts, because:

- There are many frequent routes, which require less waiting; and
- Many routes provide crosstown service, which eliminates the additional wait of a transfer.

Outside of the densest core of Greensboro, the Ridership Concept significantly improves job access close to many of the arterial corridors. Further out,

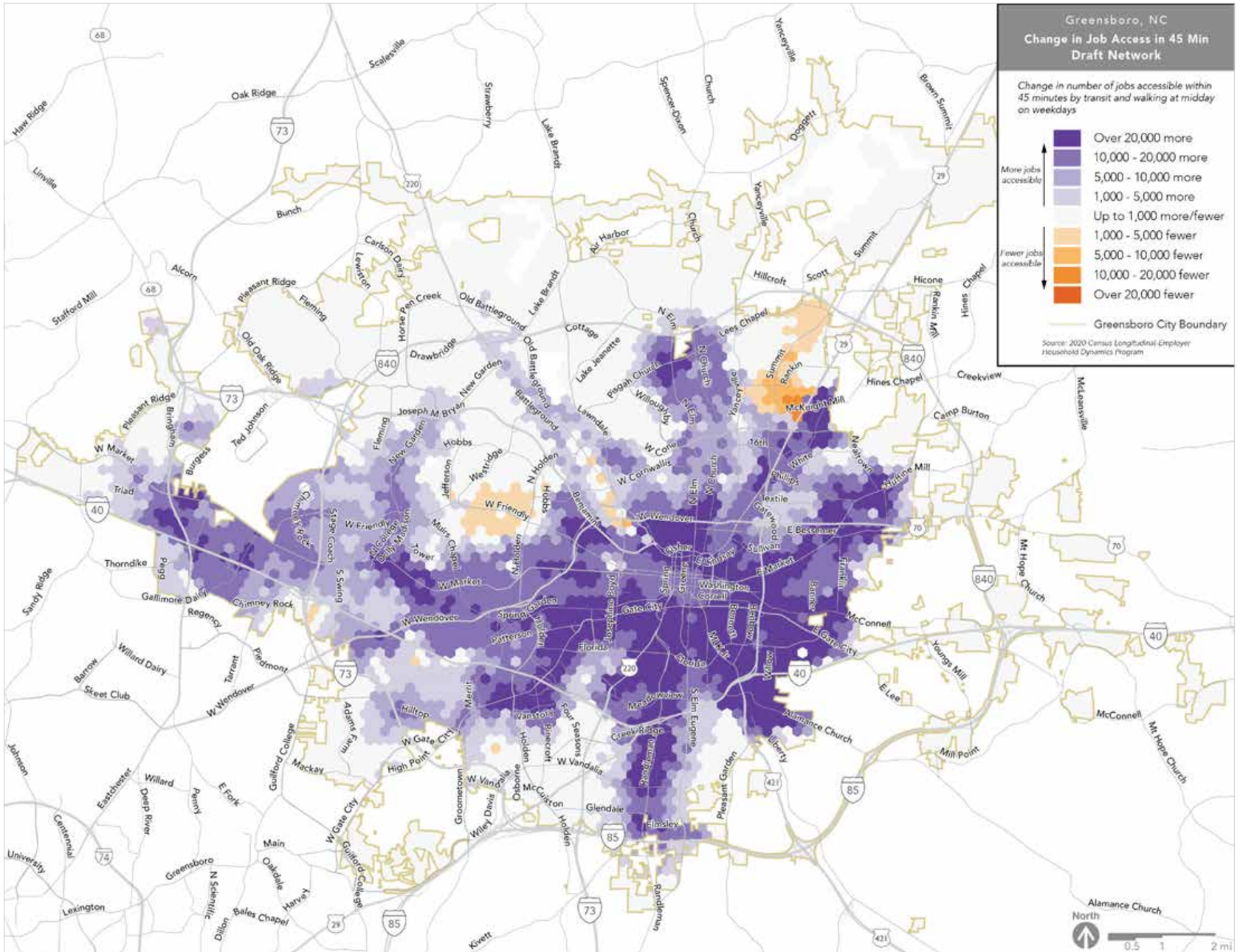


Figure 22: Map showing the change in the number of jobs accessible within 45 minutes in the Draft Network.

the benefit of added frequency, crosstown service, and modest additions in coverage can be seen in dark purple spots along West Wendover Avenue, West Market Street, North Church Street, and Summit Avenue and 16th Street.

The large orange area of access loss in the northeastern part of Summit Avenue is related to a lower frequency (but two way service, along Route 15B) there in the Draft Network, compared to the Existing Network (where Route 15 runs in a large-one way loop, but at every 30 minutes).

The smaller areas of access loss close to West Friendly Avenue and Battleground Avenue are related to the different paths of Routes 4, 8, and 17 near Benjamin Parkway. These changes are based on the routes' operational constraints, to ensure reliable schedules in face of congestion these routes face.

Overall Job Access Change

The map on the previous page showed how the Draft Network changes access to jobs for different parts of Greensboro. By adding up all the increases and decreases across the City, we can estimate how the network changes the access to jobs for a typical person in Greensboro.

The chart on the right shows the **median job access within 45 minutes** for Residents, Low-Income Residents, Households Without Cars, Residents of Color, Youth, and Seniors, in the Existing and Draft Networks.

We use the median of job access for people across Greensboro to show a value of how much job access the network provides for a "typical" person, or someone in the middle of the range. It is worth noting that 50% of people, in fact, have higher job access than that, and 50% of people have lower access.

With the Existing Network, the typical Greensboro resident can reach 6,500 jobs within 45 minutes. The Draft Network drastically increases people's access to jobs: a typical Greensboro resident could reach roughly twice as many jobs in the Draft Network, around 6,500 more jobs, compared to the Existing Network.

If we consider access change for various groups of people, we still see large changes in typical job access in the Draft Network:

- For Residents in Poverty, job access increases by 118%, which is 15,200 more jobs.
- For Households Without Cars, job access increases by 87%, or 18,700 jobs.
- For Residents of Color, job access increases by 147%, or 12,500 jobs.
- For Young Residents, job access increases by 97%, or 6,100 jobs.
- For Seniors, job access increases by 90%, or 4,700 jobs.

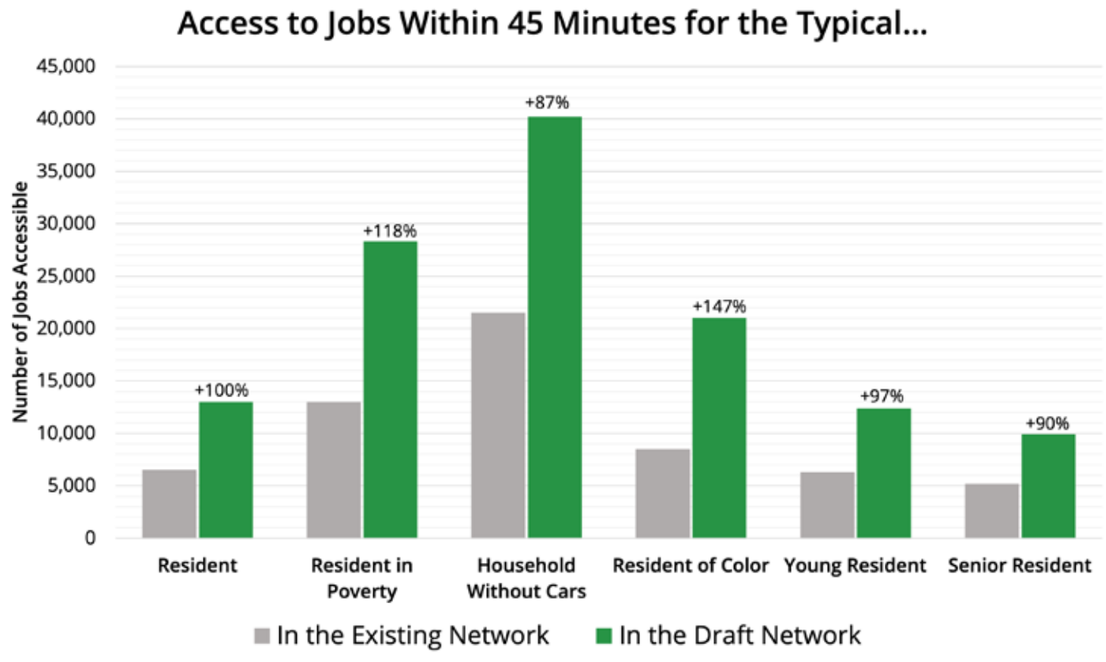


Figure 23: Median 45-minute job access for residents and various sub-groups of residents in the Existing Network and the Draft Network. We use median to illustrate access for a "typical" person in that group: 50% of the group will have a higher access and 50% will have a lower access than this.

With the Draft Network, *a typical Greensboro Resident could reach an additional 6,500 jobs, or twice as many jobs* and opportunities in 45 minutes by transit.

Proximity to Transit

The number of people and jobs within a certain distance from transit is the simplest measure of transit outcomes. In this report we call this measure "proximity to transit", and define it as what portion of Greensboro's people and jobs are located within half a mile of a bus stop with service at a particular frequency, or inside a Demand Response Zone. The charts on the right show this proximity to transit in the Draft Network compared to the Existing Network.

Overall Change

Today, only 52% of Greensboro's residents and 64% of jobs are close to transit. **The Draft Network improves overall proximity.** It brings transit close to 59% of Greensboro's residents, and 71% of Greensboro's jobs. That is, an additional 17,300 people and 11,200 jobs in Greensboro will be close to transit in the Draft Network.

The overall increase in proximity (or coverage) is quite modest in the Draft Network due to a basic geometric trade-off: most of the resources in the Draft Network are focused on providing high frequency and useful transit service to the places which can best support ridership, and so we cannot spend as much on providing service to completely new places and close to every resident and job in the City.

Proximity to Frequent Service

This trade-off is highlighted in **the large portion of people and jobs near frequent, useful service in the Draft Network** (red bars in the charts). Before Crossmax Purple was implemented, no frequent service was available in Greensboro. The Draft Network would bring frequent, useful service close to about 84,000 residents and 70,700 jobs in Greensboro during most of the day. This represents around 30% of the City's people and 43% of the jobs in the City.

Proximity by Demographic Group

Compared to residents overall, slightly larger proportions of Residents of Color and Residents in Poverty are closer to transit. Slightly *smaller* portions of Youth and Seniors are closer to transit, compared to residents overall. The portion of each group near frequent service follows a similar trend. However, the Draft Network brings a much larger portion of Households Without Cars close to frequent transit (49%) compared to residents overall (30%).

The Draft Network would bring *frequent, useful transit close to 84,000 people and 70,700 jobs* in Greensboro.

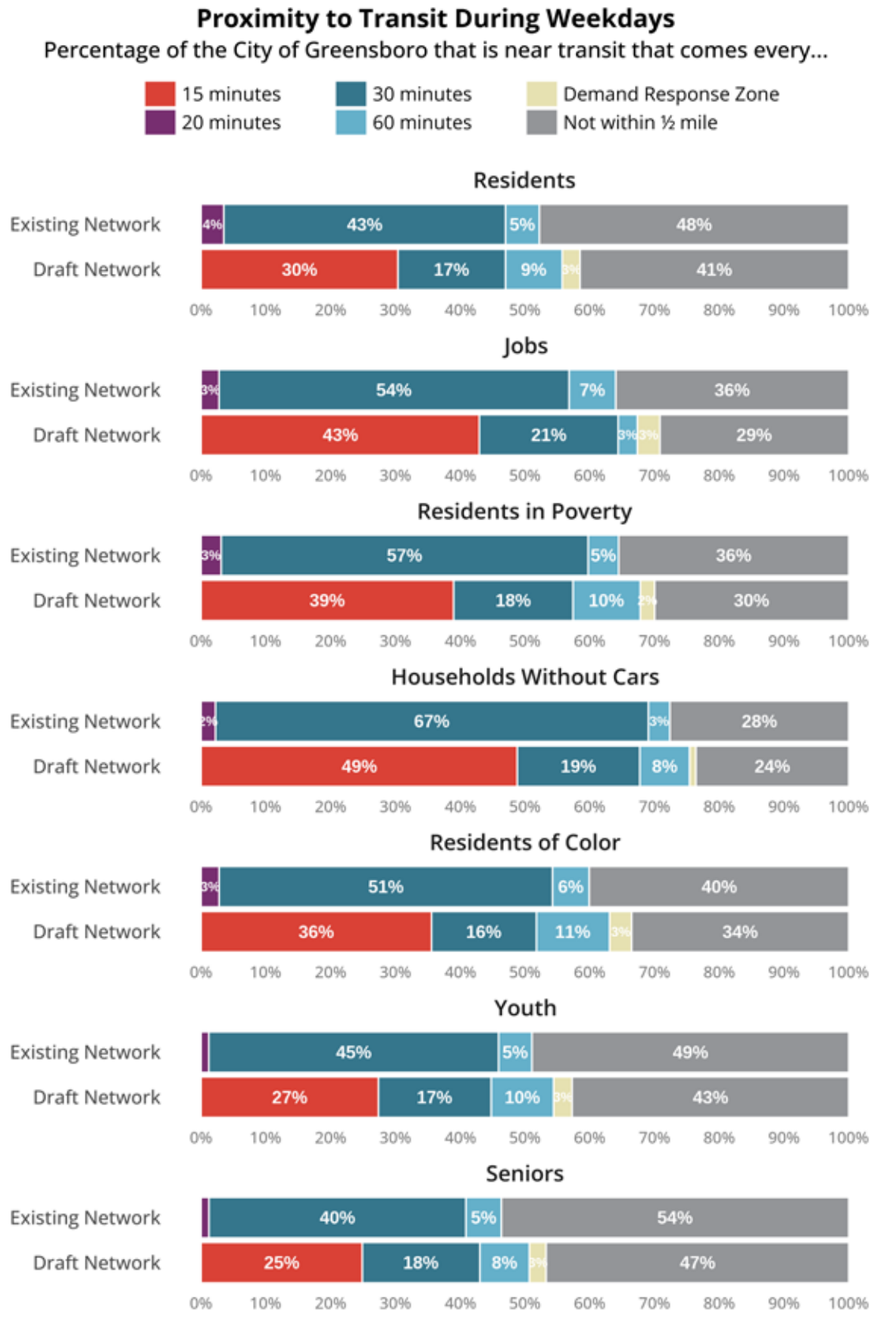


Figure 24: Comparison of Proximity to Transit in the Existing Network and the Draft Network.

5 Additional Recommendations

Implementation Considerations

Getting to the Recommended Network

Consistent funds from a source like the ½-cent Sales Tax would be available at their full extent the year after a referendum for the tax. Scaling service up from today's resource level to the level in GoBORO will take multiple years because procuring transit buses, creating additional necessary infrastructure, and hiring new staff can take time. So, we have to consider structuring the implementation of the network.

If a large single source of funds like the sales tax is not available, a phased approach still provides a path for Greensboro to get to the recommended network over several years. The City could still be prepared to slowly take on commitments of smaller packages of improvements.

Despite how different the Draft Network is, the overall radial structure of the network will not change much: all the major arterial corridors that have service today have service in the Draft Network. This makes it possible to group routes in a way that makes phasing easier.

We recommend the following phasing, based on input from City staff:

Phase 0: Replace Existing Routes 1 and 10 with Routes 1A and 1B. This is **already implemented as Crossmax Purple.**

Phase 1: Extend weekday 30-minute frequencies to end at 10 PM instead of 6 PM, and improve weekend frequencies to match weekday frequencies. This change will not require the purchase of any additional buses, because frequency won't change.

Phase 2: Implement the recommended Demand Response Zones. The vehicles required for Demand Response can likely be procured much faster than fixed route buses or be repurposed from existing vehicle stock. This service will immediately provide transit coverage in new areas.

Phase 3: Replace Existing Routes 3 and 13 with the frequent crosstown Route 3, and modified Route 18. This would be the next implementation of the Crossmax brand, on a key North-South crosstown corridor.

Phase 4: Replace Existing Routes 4, 5, 7, and 9 with Routes 4, 5A, 5B, and 16. This would be the largest change in the system as it would add frequency on two crosstown corridors while significantly expanding 30-minute service coverage further West compared to the Existing Network.

Phase 5: Replace Existing Routes 2 and 12A with Routes 2A and 2B, and modify Existing Route 8 and 17. These would be modest improvements and changes that would be possible once all the previous phases are complete.

Phase 6: Replace Existing Routes 6, 11, and 15 with Routes 6A, 6B, 15A, and 15B. This would be the last major Crossmax phase to be implemented. This will provide some time for the City and its regional partners to plan any potential transit priority measures or Bus Rapid Transit (BRT) improvements on the West Gate City Corridor, and enhanced connections to Jamestown and High Point.

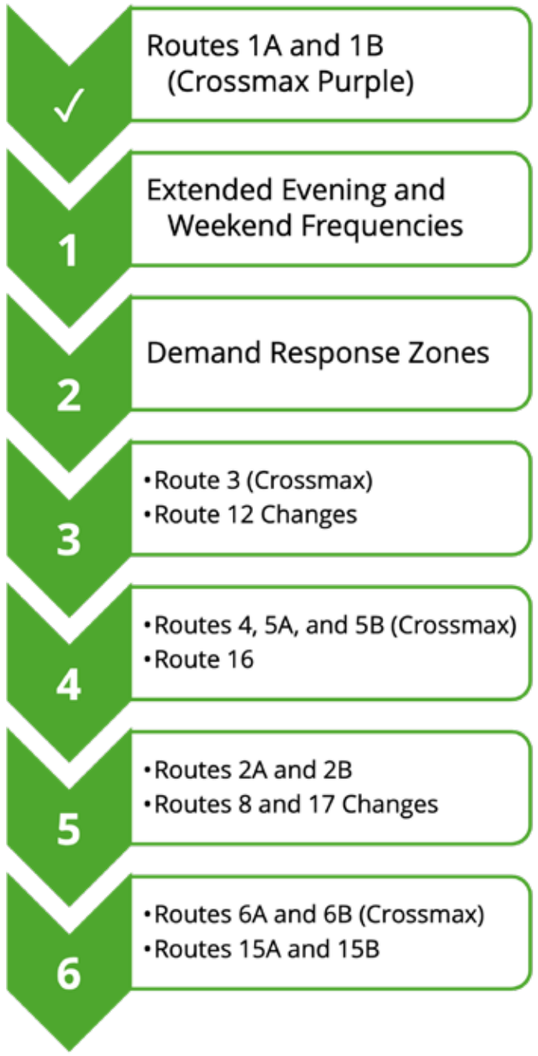


Figure 25: Recommended Phasing for Implementing the GoBORO Draft Network.

Service and Infrastructure

Often, transit service is overlooked as a factor because infrastructure investments like large hubs and beautiful bus stops are more physically obvious. Yet infrastructure is not as useful to a community if the transit service using the infrastructure is limited and low frequency. Similarly, the benefits of a well-designed transit network with lots of service can be limited if the infrastructure to reach bus stops is missing.

The primary focus of GoBORO is transit service. Yet, investments in the infrastructure and development that support transit are critical to maximizing the value of the investment in transit service.

Greensboro still needs to invest in sidewalks, bike lanes, bus lanes, trails, safe crossings, bus shelters, transit hubs, and all the infrastructure that makes good transit service (and travel without a car) possible. The transit service plan that results from GoBORO can be used by Greensboro to encourage and prioritize investments in these elements.

As part of GoBORO, we have assumed that 10% of the funding Greensboro would receive annually from a source like the ½-cent Sales Tax would go towards capital investments like vehicles, stops, roadway improvements. There are also many opportunities to obtain federal funding for capital improvements that Greensboro can leverage.

Built Environment to Support Transit

Transit policies that reflect a community's values can greatly shape its development. Businesses and developers can have clarity on optimal locations for the best access, and people clear understanding of when and where transit serves them best, and how transit aligns with their values. The GoBORO Draft Network establishes clear, frequent crosstown corridors which have potential for the type of development and redevelopment that lets large numbers of people choose transit.

Transit agencies are commonly placed in a challenging position. They are expected to provide useful service everywhere but have little influence in how a city chooses to develop. Transit and the built environment are two sides of the same coin. **The built environment has a strong effect on transit's ability to succeed in being useful and attracting ridership:**

- **Density:** How many people, jobs and activities are near each bus stop?
- **Linearity:** Can transit reach large numbers of people by traveling straight, direct paths?
- **Proximity:** Can transit reach large numbers of people without crossing long, low-demand gaps?
- **Walkability:** How many of the people near a bus stop can actually reach it?
- **Mix of Uses:** Is there a diversity of residences and activities that can support two-way demand?

Development patterns that support transit ridership are called "Transit Oriented Development", or TOD. Developing and implementing a TOD Policy will be critical to GoBORO's success.

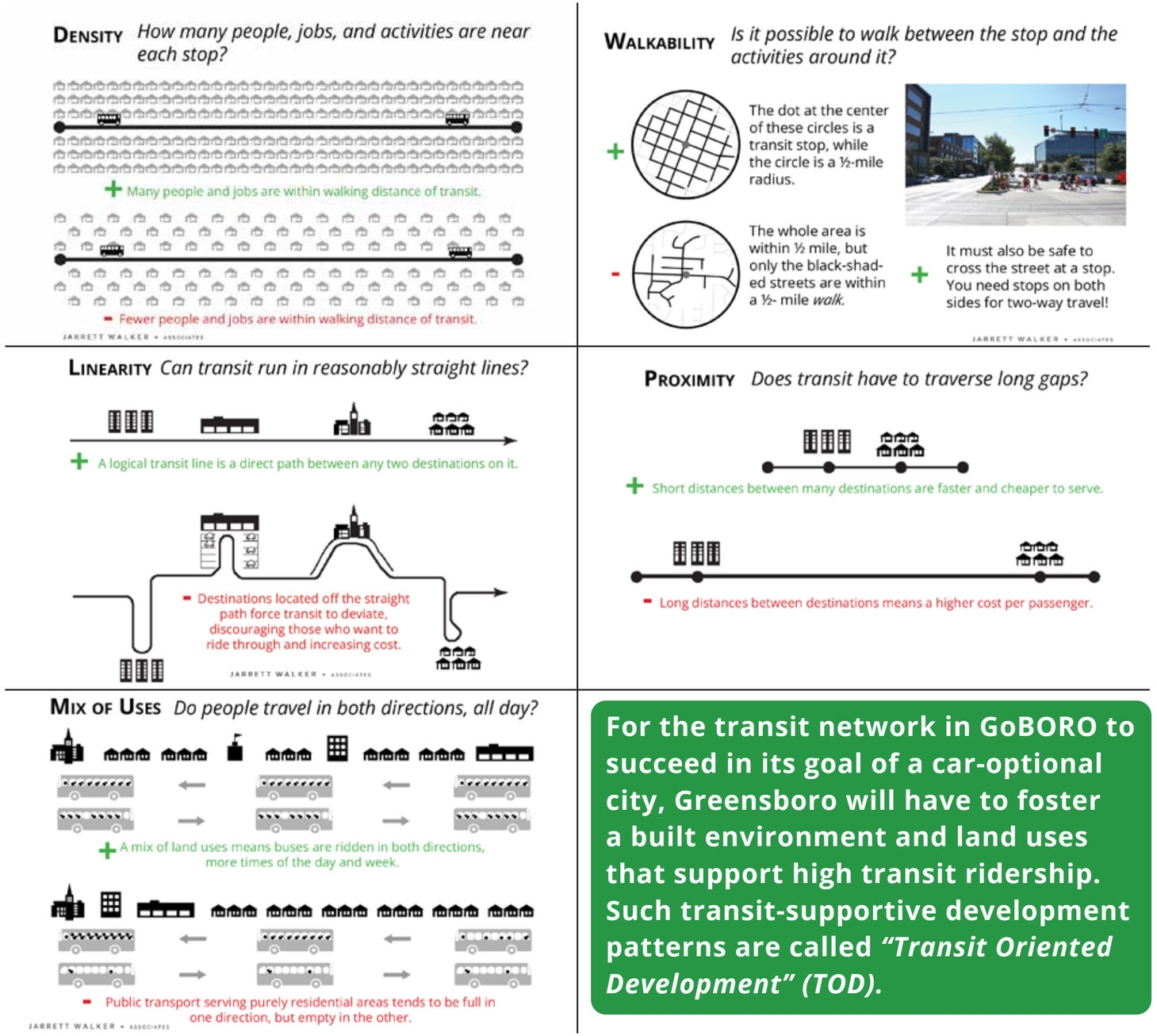


Figure 26: The ways in which the built environment affects the usefulness of transit and its success in attracting ridership.

For the transit network in GoBORO to succeed in its goal of a car-optional city, Greensboro will have to foster a built environment and land uses that support high transit ridership. Such transit-supportive development patterns are called *"Transit Oriented Development" (TOD).*

TOD Policy Recommendations

Based on an assessment of Greensboro's existing conditions for TOD Readiness, the project team has developed a set of Draft TOD Policy Recommendations that would complement the GoBORO Draft Network. For more details on the assessment and recommendations, you can refer to the TOD Readiness Assessment on the project website.

The TOD Policy Recommendations can be summarized along several themes:

Land Development Regulations

Regulations and ordinances are one of the most important mechanisms through which TOD policies and plans can be implemented. Greensboro's regulations can help achieve ridership goals in various ways by influencing development close to transit, for instance by:

- Allowing taller, denser development by regulating building height and density,
- Encouraging building placement with minimum setbacks and frontage standards that support a good pedestrian experience,
- Creating more open spaces through tools like Open Space Ratios to foster vibrant public life and community activities,
- Requiring parking placement away from the front and revising parking minimums,
- Encouraging consideration for future development and new streets and blocks when designing large parking lots, and
- Retrofitting existing large-scale development with smaller street blocks.

Land Use Map and Zoning Ordinance

Greensboro should consider a transit overlay on the Land Use and Zoning Maps, which would tie TOD-supportive regulations to the frequent crosstown corridors in GoBORO. This will encourage density and a mix of land uses along these corridors that emphasizes pedestrian and bicycle-friendly environments that support strong transit ridership.

Transit is most successful at attracting ridership when it connects a wide variety of housing, jobs, services, and public spaces. The variety of land uses along each GoBORO corridor can be measured when the plan is finalized. Future revisions to the Land Use Map and Zoning Ordinance should consider transit connectivity and explore opportunities to broaden the diversity of land uses within each corridor.

Certain land uses can have a discouraging effect on the pedestrian and cycling experience, and also on transit ridership, and should be considered carefully within or near the corridors. These include, but are not limited to, automobile services, surface parking lots, and drive-through facilities.

Public investments such as transit expansion can sometimes unintentionally lead to increasing property values and displacement of vulnerable communities. Implementing affordable housing programs and policies early in the TOD planning process is critical to preventing displacement before it takes place. The city's Analysis of Impediment to Fair Housing (anticipated to be completed in November 2024) is a strong first step. The outcomes and recommendations of that study should be carefully considered and incorporated in planning, especially in and around future transit corridors.

Greensboro can also explore opportunities for public-private partnerships or development incentive programs to close any gaps between development trends and the pace and type of development the city is looking for.

Roadway Design

Greensboro should establish a road network strategy that classifies each street according to the function it is meant to serve relative to planned transit, adjacent land uses, and its place in the broader street network. This will help ensure that future roadway projects strengthen connections between transportation and land use.

Smaller blocks, connected street grids, wide sidewalks, safe crossings and intersections, protected bike lanes, and transit priority are all important roadway design measures that Greensboro can prioritize along the frequent crosstown corridors.

Policy, Vision, and Branding

Greensboro should firmly establish TOD as an endorsed strategy to pursue its car-optional goal. This can include a TOD Master Plan and the intentional use of TOD-specific language to increase stakeholder and community awareness of TOD concepts. This will ensure greater consistency between land use and transportation planning efforts.

The 2030 Strategic Vision Plan by Downtown Greensboro Incorporated illustrates latent demand for a community vision for Downtown Greensboro. The City should build on this momentum by conducting formal visioning efforts that engage all Greensboro stakeholders and community members. Through these efforts, the City can help community members understand the relationships between land use and transportation and how tools like TOD can help realize community goals. To support these efforts, the City recently won a Federal Transit Administration grant to study strategies for transit-oriented development on and around the J. Douglas Gaylon Depot and identify ways to revitalize the area, including developing affordable housing.

Greensboro should draw on local architecture and development contexts to envision how TOD typologies might feel in Greensboro. The result would be a development guide for transit stop typologies and a classification of which GTA stops are intended to fall into each group.

Building a brand identity for neighborhoods and corridors can help engender civic pride and a sense of community, which can also be leveraged by transit. This can help catalyze development and transit ridership. The city should consider working with local organizations to formalize and expand neighborhood identities.

GTA is rolling out the Crossmax brand to distinguish the frequent crosstown routes from other services. By extending those branding efforts to on-street infrastructure, the city can capitalize on the value of the brand and potentially catalyze new development opportunities around key stops.

6 Next Steps

Next Steps

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

This report is the second step in working with the Greensboro Community on its long-term transit vision. It will kick off a round of public engagement for the Community's feedback on the Draft of the GoBORO Long-Range Transit Plan.

In May and June 2024, members of the project team, GTA and City staff, and others will be engaging the public through media outreach, social media engagement, and surveying at key locations, events, and online. The project team will also engage with local stakeholders.

Through this process, we would like to hear your thoughts on how this Draft Network relates to your idea of the City's car-optional goal. Building on the input we get from you, our study team will finalize the Long-Range Transit Plan. That will include maps of the new routes, an Implementation Plan, and a Transit-Oriented Development Plan, which will be summarized in a report for the public and stakeholders to review in Fall 2024.

For more information about the surveys and outreach event dates, please visit https://bit.ly/goboro_site to:

- Take the survey;
- Contact the team to ask questions; and
- Find out more about meetings and events where you engage in the GoBORO process!

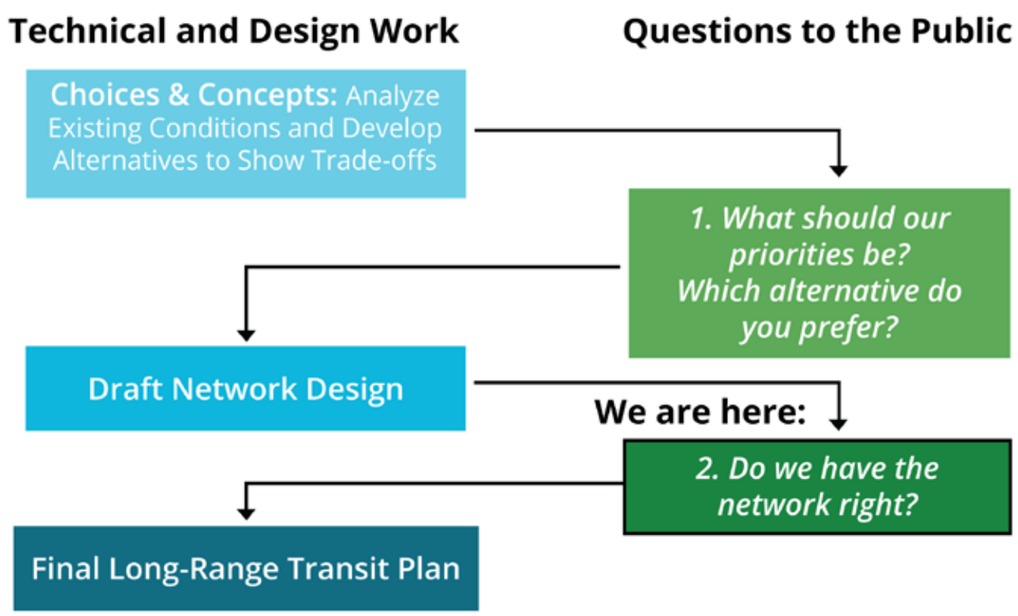


Figure 27: Process of Technical Work and Public Engagement That Will Guide GoBORO.

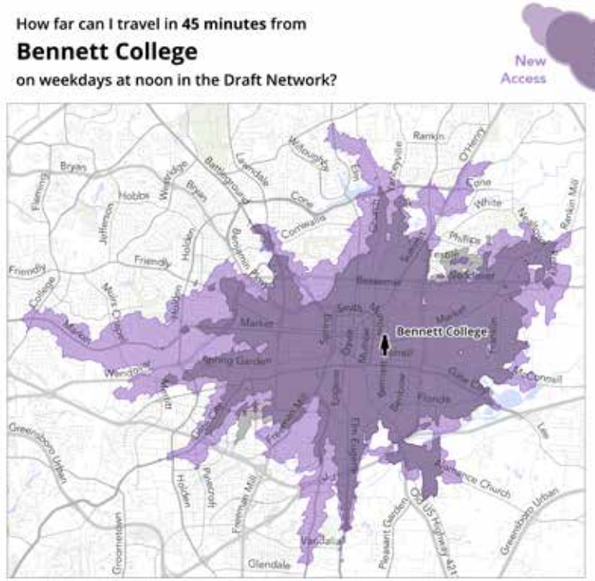
Appendix A: Draft Network Isochrones

Summary Table of Access Change Within 45 Minutes

Location	Jobs Accessible in Existing Network	Jobs Accessible in Draft Network	Change in Jobs Accessible	Percent Change in Jobs Accessible	Residents Accessible in Existing Network	Residents Accessible in Draft Network	Change in Residents Accessible	Percent Change in Residents Accessible
Bennett College	58,300	75,300	+17,000	+29%	62,800	90,500	+27,600	+44%
Claremont Courts	18,400	34,300	+15,900	+87%	22,500	36,400	+13,800	+61%
Coble Transportation Center	4,200	31,900	+27,700	+656%	1,000	20,500	+19,600	+2,034%
Gateway Research Park	5,000	30,100	+25,100	+500%	16,700	32,000	+15,300	+92%
Greensboro City Hall	79,300	98,800	+19,500	+25%	91,500	127,800	+36,300	+40%
Greensboro Coliseum	34,200	67,200	+32,900	+96%	43,800	78,400	+34,600	+79%
GTCC Greensboro Campus	7,600	31,600	+24,000	+316%	16,200	41,600	+25,400	+157%
GTCC Jamestown Campus	2,900	3,000	+100	+3%	6,800	7,000	+100	+2%
Guilford County Public Health Office	51,400	48,500	-2,900	-6%	53,000	53,400	+400	+1%
Guilford County Social Services Office	52,000	50,900	-1,100	-2%	59,000	54,100	-4,900	-8%
Hampton Homes	38,900	69,700	+30,800	+79%	42,200	81,400	+39,100	+93%
J. Douglas Galyon Depot	92,000	104,700	+12,600	+14%	116,900	136,500	+19,600	+17%
Jefferson Village Shopping Center	1,800	10,300	+8,500	+484%	3,700	16,900	+13,200	+361%
Kindred Hospital	38,800	47,800	+9,000	+23%	36,600	48,300	+11,700	+32%
Lawndale Crossing Shopping Center	28,700	34,400	+5,700	+20%	25,200	24,600	-600	-2%
NCA&T Campus	41,300	61,100	+19,800	+48%	41,800	74,800	+33,000	+79%
North Elm Village	10,600	33,200	+22,600	+213%	11,300	23,500	+12,200	+108%
Overland Heights	7,500	26,800	+19,300	+259%	17,700	35,900	+18,200	+103%
Ray Warren Homes	29,600	51,700	+22,100	+75%	31,700	56,700	+25,000	+79%
Revolution Mill	45,100	43,600	-1,500	-3%	44,300	36,000	-8,400	-19%
Shoppes on Market	37,800	52,000	+14,200	+38%	38,100	60,800	+22,800	+60%
Smith Homes	34,000	57,400	+23,400	+69%	39,000	66,300	+27,300	+70%
Social Security Administration Office	15,100	27,000	+11,900	+78%	14,500	35,900	+21,400	+148%
W Florida St and S Josephine Boyd St	45,700	44,200	-1,500	-3%	51,800	53,600	+1,800	+4%
Walmart Cotswold Avenue	10,400	10,800	+400	+4%	16,000	15,600	-400	-3%
Walmart Elmsley Drive	12,200	26,700	+14,500	+118%	18,800	24,100	+5,300	+28%
Walmart Sixteenth Street	17,300	37,100	+19,800	+115%	16,300	29,200	+12,900	+79%
Walmart Wendover Avenue	12,400	19,100	+6,700	+53%	11,200	22,200	+11,000	+99%
Wesley Long Hospital	39,800	68,000	+28,200	+71%	37,800	76,600	+38,800	+103%
Westridge Square	17,700	23,200	+5,500	+31%	21,200	19,500	-1,700	-8%
Willow Oaks	29,200	52,200	+23,000	+79%	32,600	59,700	+27,200	+83%
Windsor Recreation Center	47,800	66,500	+18,700	+39%	47,300	76,800	+29,600	+63%

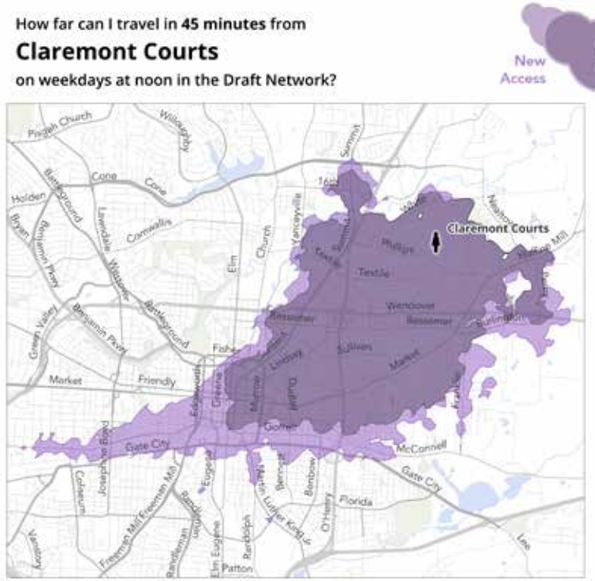
Isochrones by Location

How far can I travel in **45 minutes** from
Bennett College
on weekdays at noon in the Draft Network?



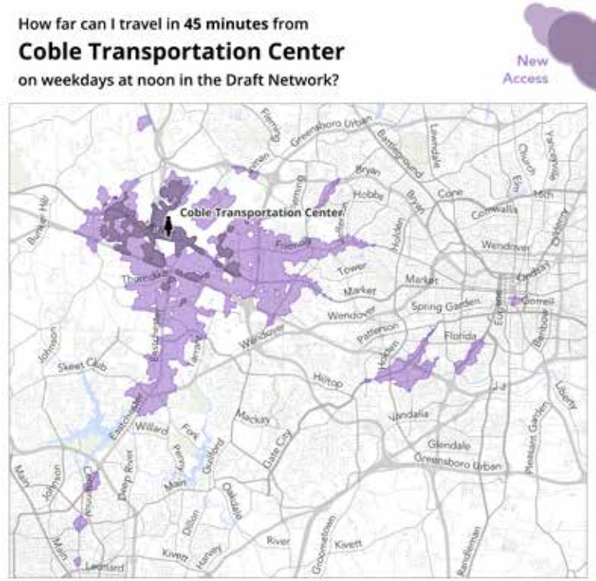
You could reach
+17,000 (+29.0%) Jobs
and
+27,600 (+44.0%) Residents

How far can I travel in **45 minutes** from
Claremont Courts
on weekdays at noon in the Draft Network?



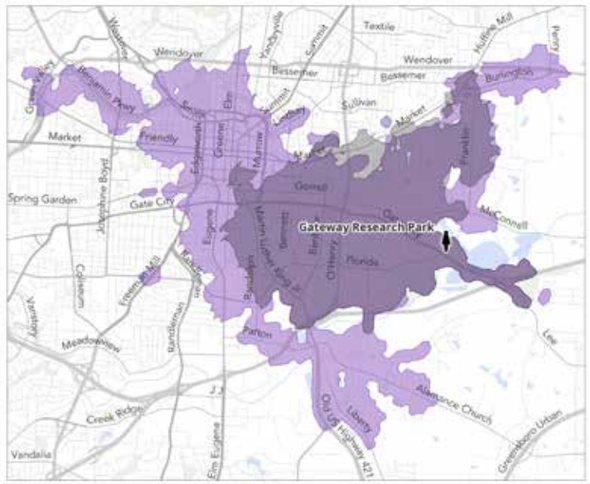
You could reach
+15,900 (+86.5%) Jobs
and
+13,800 (+61.5%) Residents

How far can I travel in **45 minutes** from
Coble Transportation Center
on weekdays at noon in the Draft Network?



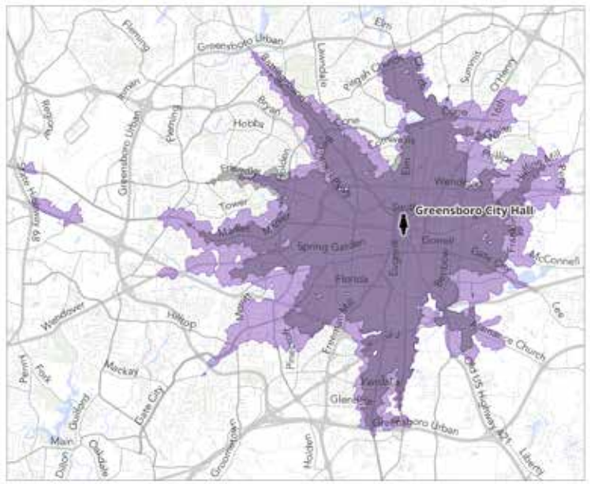
You could reach
+27,700 (+656.0%) Jobs
and
+19,600 (+2 034.5%) Residents

How far can I travel in **45 minutes** from
Gateway Research Park
on weekdays at noon in the Draft Network?



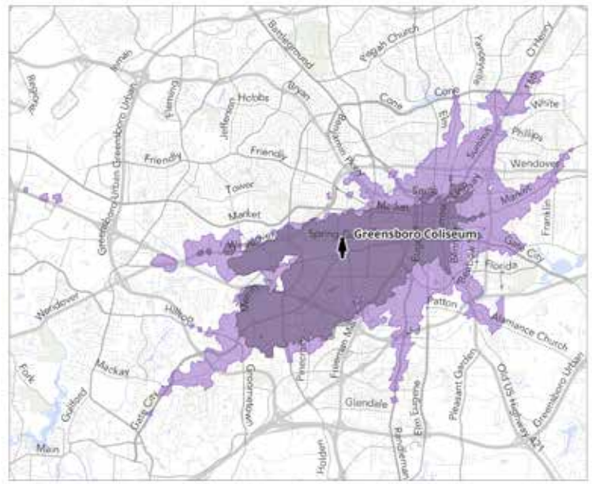
You could reach
+25,100 (+500.0%) Jobs
and
+15,300 (+91.5%) Residents

How far can I travel in **45 minutes** from
Greensboro City Hall
on weekdays at noon in the Draft Network?



You could reach
+19,500 (+24.5%) Jobs
and
+36,300 (+39.5%) Residents

How far can I travel in **45 minutes** from
Greensboro Coliseum
on weekdays at noon in the Draft Network?

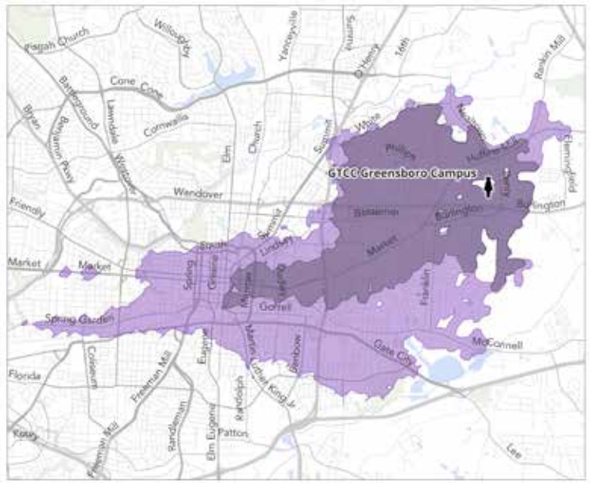


You could reach
+32,900 (+96.0%) Jobs
and
+34,600 (+79.0%) Residents

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

GTCC Greensboro Campus

on weekdays at noon in the Draft Network?



You could reach

+24,000 (+316.5%) Jobs

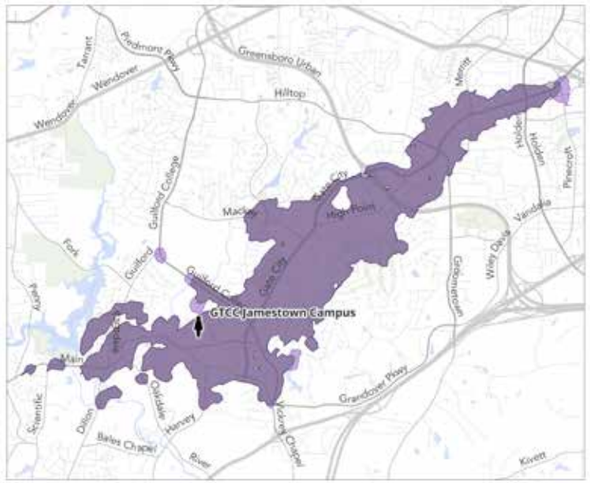
and

+25,400 (+157.0%) Residents

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

GTCC Jamestown Campus

on weekdays at noon in the Draft Network?



You could reach

+100 (+3.0%) Jobs

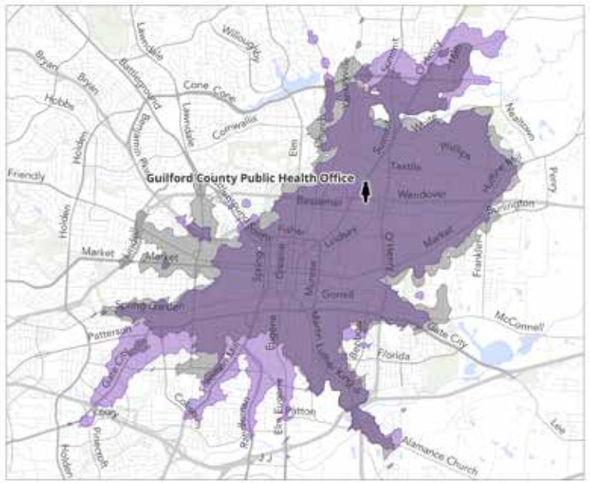
and

+100 (+2.0%) Residents

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

Guilford County Public Health Office

on weekdays at noon in the Draft Network?



You could reach

-2,900 (-5.5%) Jobs

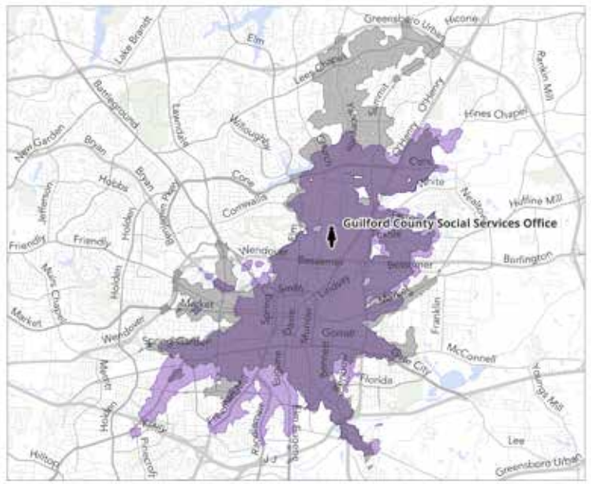
and

+400 (+1.0%) Residents

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

Guilford County Social Services Office

on weekdays at noon in the Draft Network?



You could reach

-1,100 (-2.0%) Jobs

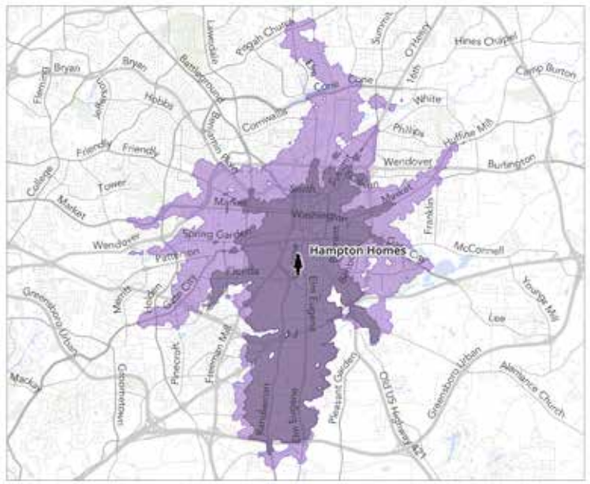
and

-4,900 (-8.5%) Residents

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

Hampton Homes

on weekdays at noon in the Draft Network?



You could reach

+30,800 (+79.5%) Jobs

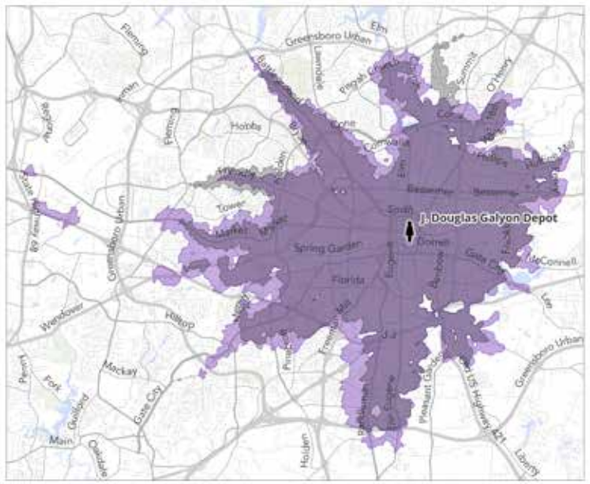
and

+39,100 (+92.5%) Residents

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

J. Douglas Galyon Depot

on weekdays at noon in the Draft Network?



You could reach

+12,600 (+13.5%) Jobs

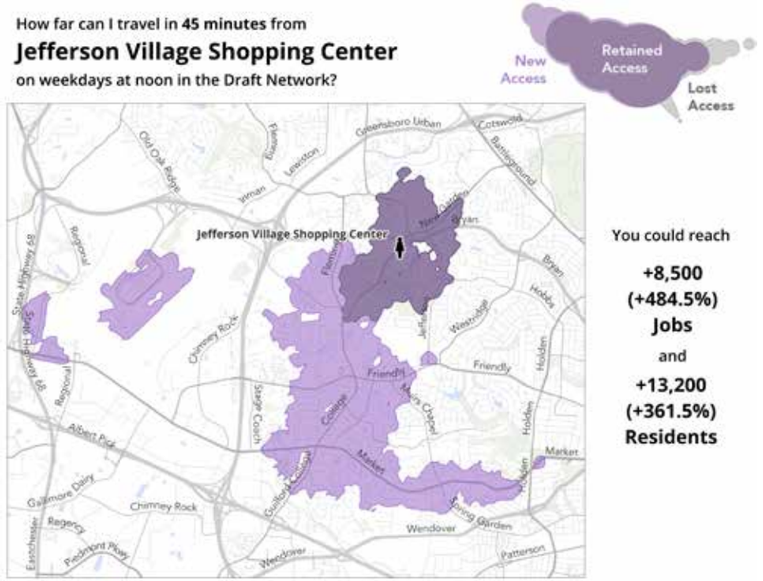
and

+19,600 (+17.0%) Residents

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

Jefferson Village Shopping Center

on weekdays at noon in the Draft Network?



You could reach

+8,500 (+484.5%) Jobs

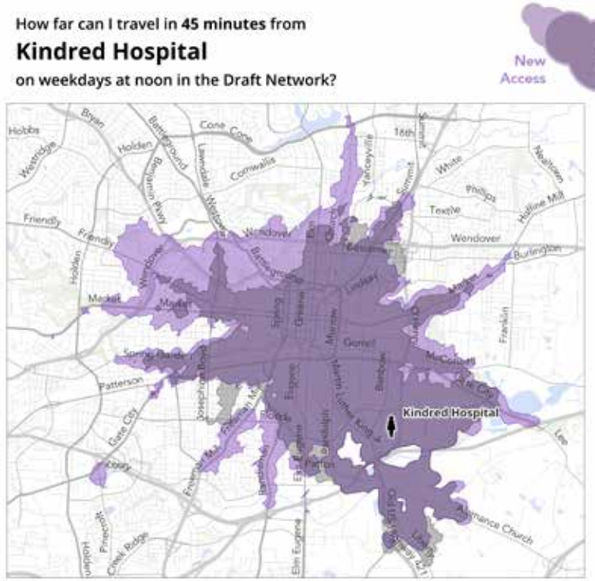
and

+13,200 (+361.5%) Residents

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

Kindred Hospital

on weekdays at noon in the Draft Network?



You could reach

+9,000 (+23.0%) Jobs

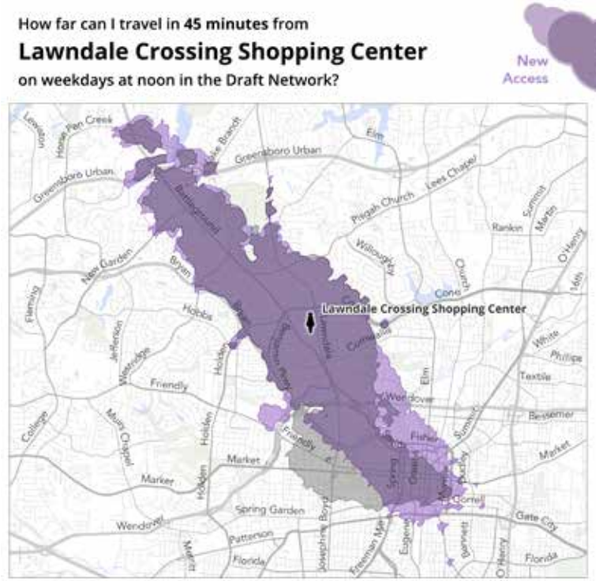
and

+11,700 (+32.0%) Residents

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

Lawndale Crossing Shopping Center

on weekdays at noon in the Draft Network?



You could reach

+5,700 (+20.0%) Jobs

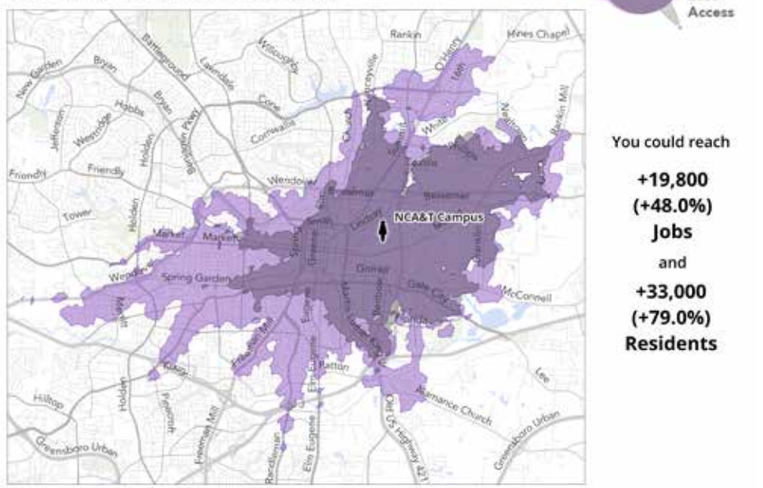
and

-600 (-2.0%) Residents

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

NCA&T Campus

on weekdays at noon in the Draft Network?



You could reach

+19,800 (+48.0%) Jobs

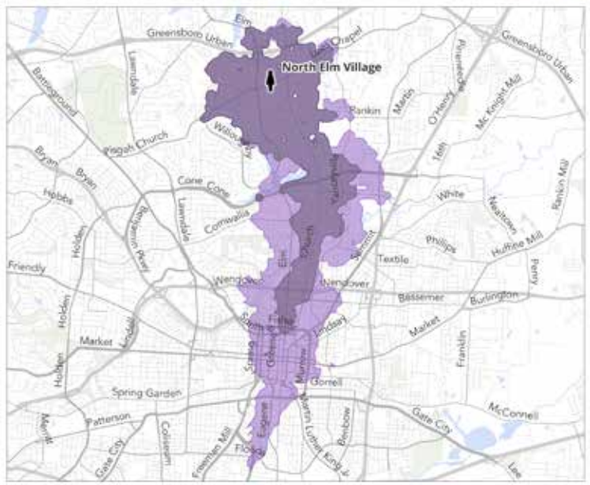
and

+33,000 (+79.0%) Residents

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

North Elm Village

on weekdays at noon in the Draft Network?



You could reach

+22,600 (+213.0%) Jobs

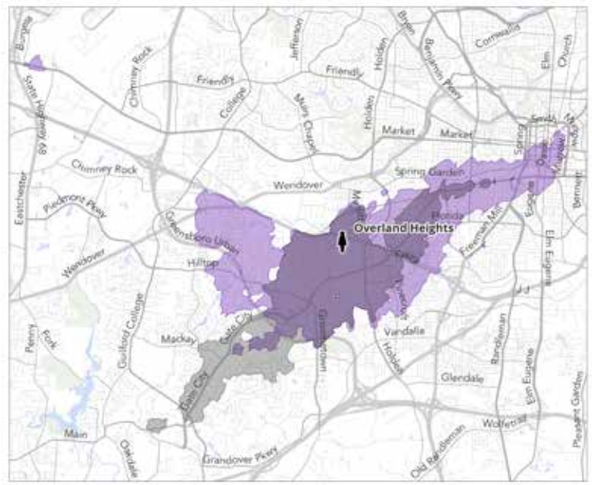
and

+12,200 (+108.0%) Residents

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

Overland Heights

on weekdays at noon in the Draft Network?



You could reach

+19,300 (+259.0%) Jobs

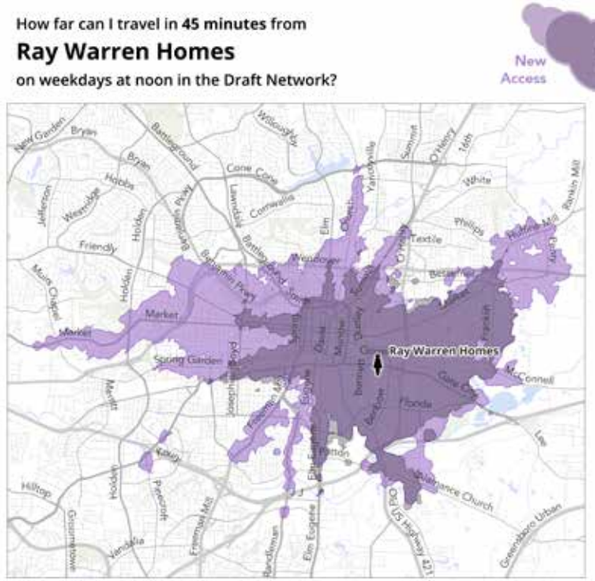
and

+18,200 (+103.0%) Residents

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

Ray Warren Homes

on weekdays at noon in the Draft Network?



You could reach

+22,100 (+74.5%) Jobs

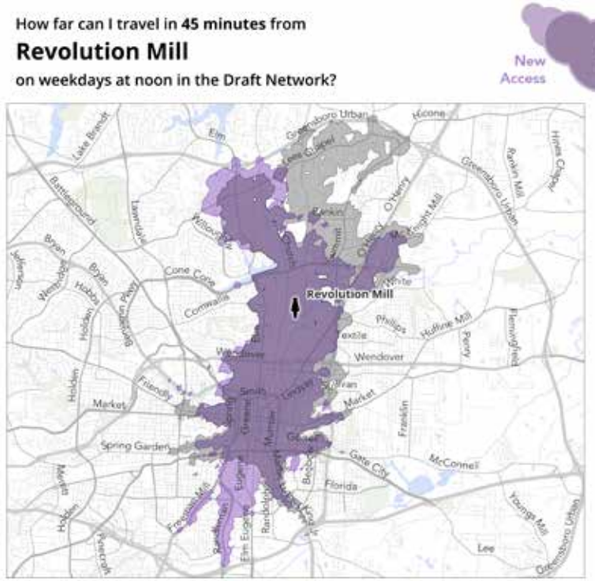
and

+25,000 (+78.5%) Residents

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

Revolution Mill

on weekdays at noon in the Draft Network?



You could reach

-1,500 (-3.5%) Jobs

and

-8,400 (-19.0%) Residents

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

Shoppes on Market

on weekdays at noon in the Draft Network?

You could reach

+14,200 (+37.5%) Jobs

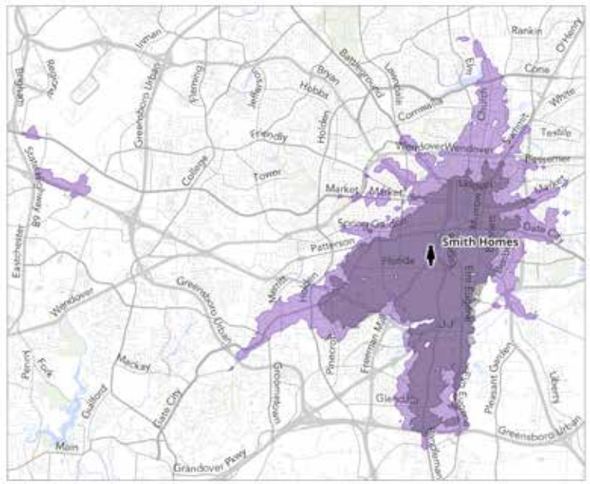
and

+22,800 (+60.0%) Residents

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

Smith Homes

on weekdays at noon in the Draft Network?



You could reach

+23,400 (+69.0%) Jobs

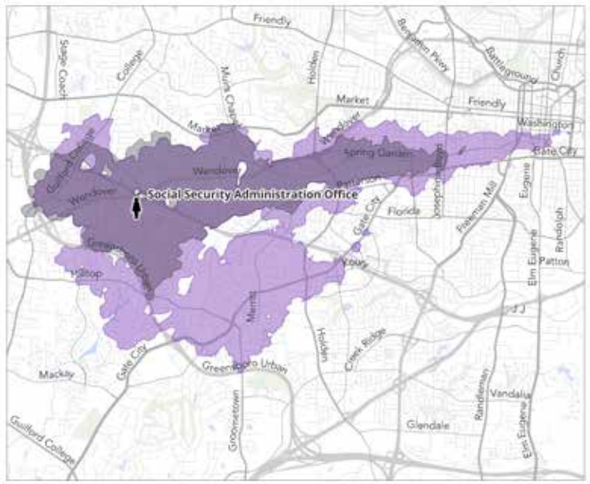
and

+27,300 (+70.0%) Residents

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

Social Security Administration Office

on weekdays at noon in the Draft Network?



You could reach

+11,900 (+78.5%) Jobs

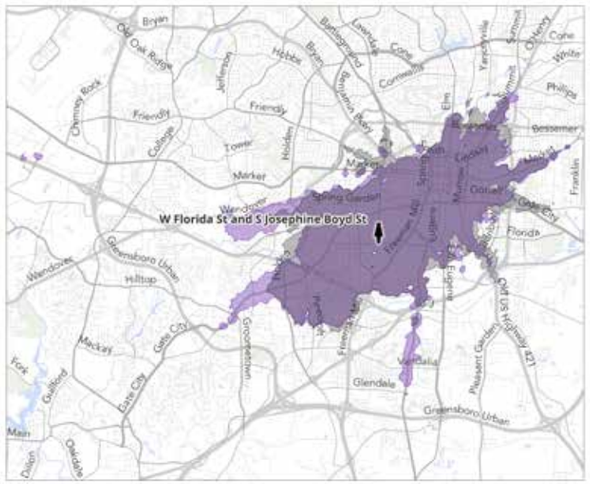
and

+21,400 (+148.0%) Residents

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

W Florida St and S Josephine Boyd St

on weekdays at noon in the Draft Network?



You could reach

-1,500 (-3.5%) Jobs

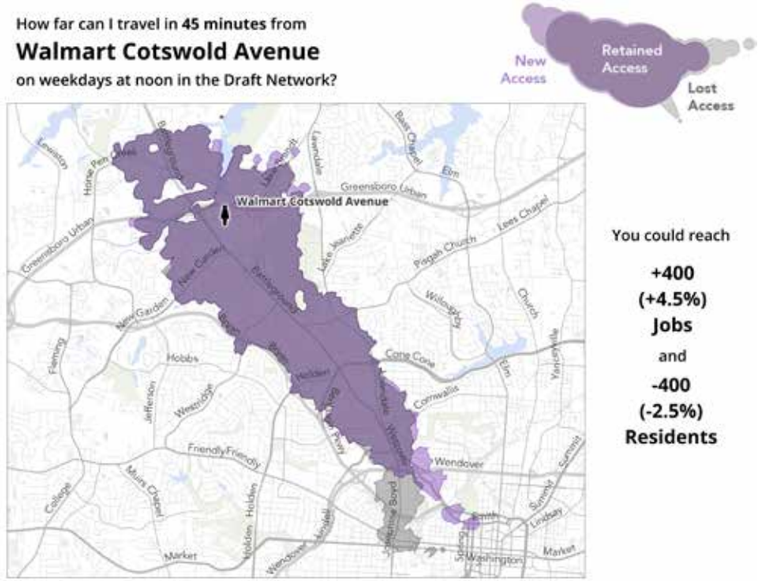
and

+1,800 (+3.5%) Residents

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

Walmart Cotswold Avenue

on weekdays at noon in the Draft Network?



You could reach

+400 (+4.5%) Jobs

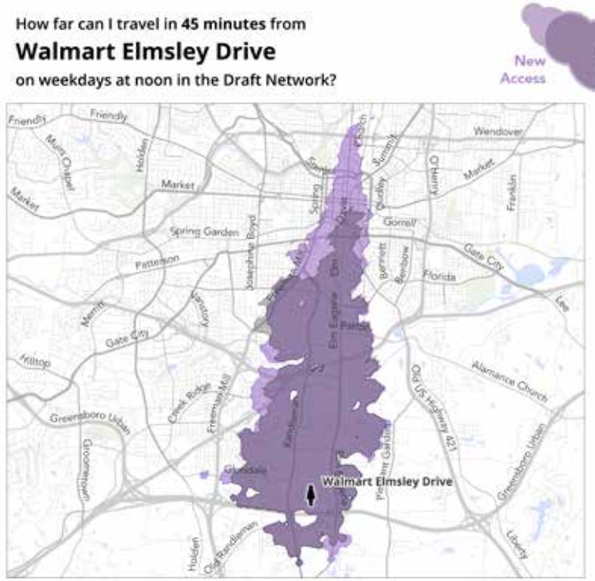
and

-400 (-2.5%) Residents

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

Walmart Elmsley Drive

on weekdays at noon in the Draft Network?



You could reach

+14,500 (+118.5%) Jobs

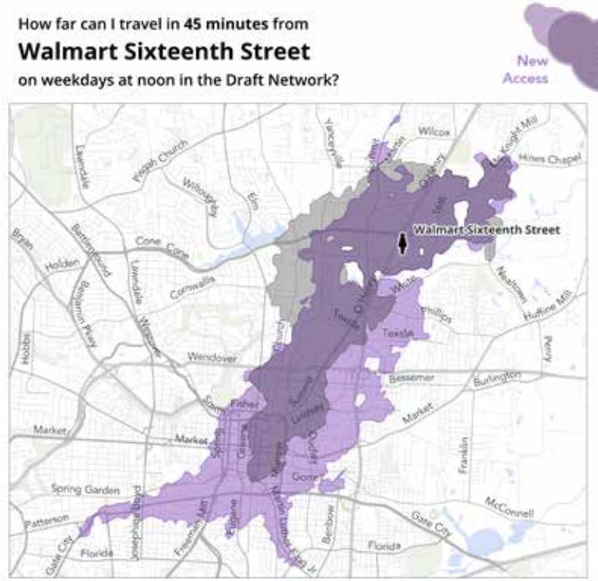
and

+5,300 (+28.5%) Residents

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

Walmart Sixteenth Street

on weekdays at noon in the Draft Network?



You could reach

+19,800 (+115.0%) Jobs

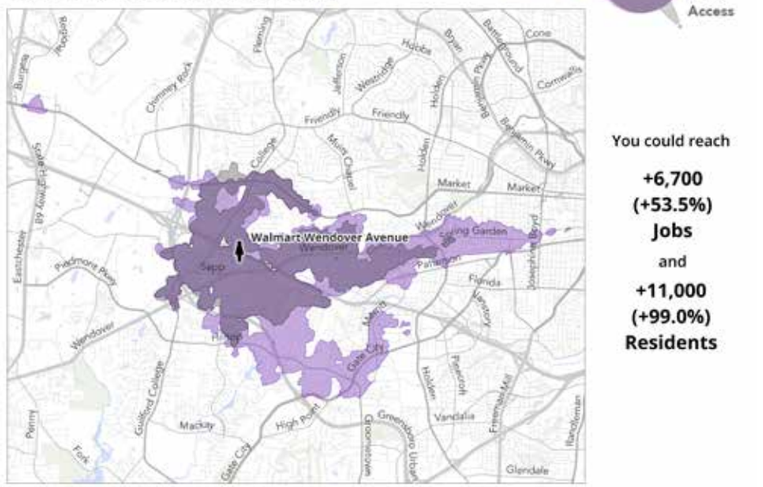
and

+12,900 (+79.0%) Residents

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

Walmart Wendover Avenue

on weekdays at noon in the Draft Network?



You could reach

+6,700 (+53.5%) Jobs

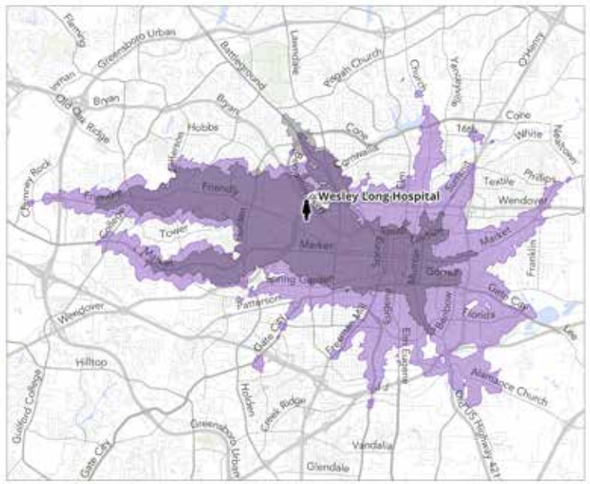
and

+11,000 (+99.0%) Residents

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

Wesley Long Hospital

on weekdays at noon in the Draft Network?



You could reach

+28,200 (+71.0%) Jobs

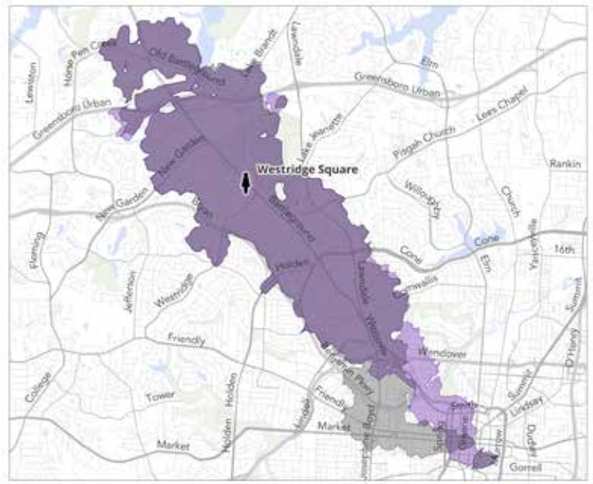
and

+38,800 (+102.5%) Residents

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

Westridge Square

on weekdays at noon in the Draft Network?



You could reach

+5,500 (+31.5%) Jobs

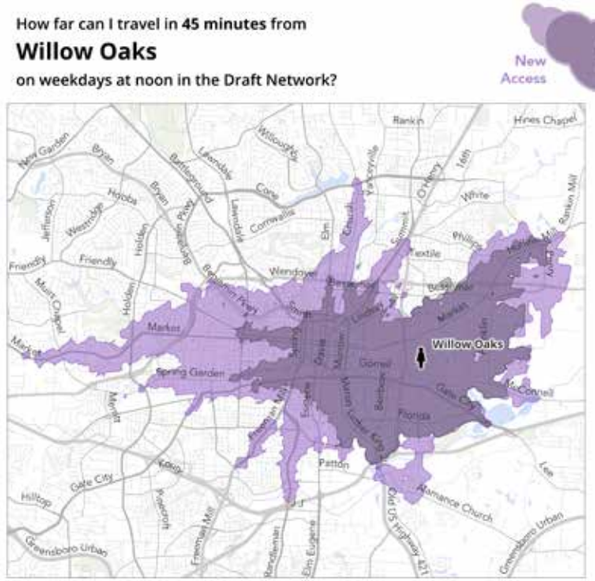
and

-1,700 (-8.0%) Residents

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

Willow Oaks

on weekdays at noon in the Draft Network?



You could reach

+23,000 (+79.0%) Jobs

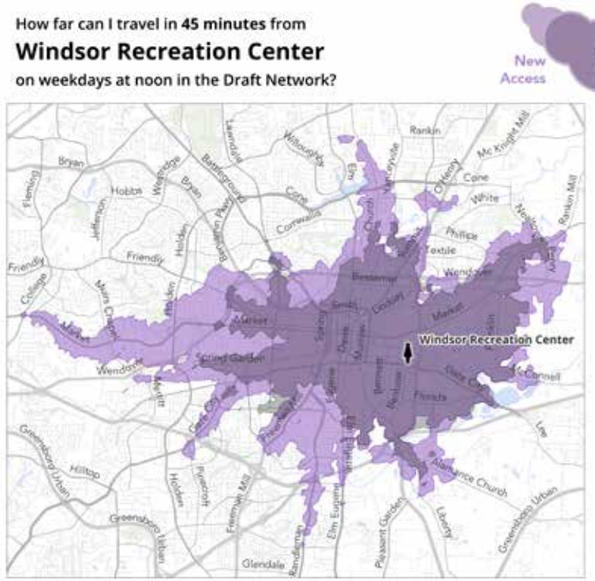
and

+27,200 (+83.5%) Residents

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

Windsor Recreation Center

on weekdays at noon in the Draft Network?



You could reach

+18,700 (+39.0%) Jobs

and

+29,600 (+62.5%) Residents