



# SOUTHEAST AREA STUDY UPDATE

## SEAS

S O U T H E A S T   A R E A   S T U D Y

U P D A T E

December 2023



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# A

# SEAS

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## UPDATE

# **APPENDIX A:**

# Engagement Compendium





# PHASE 1 OUTREACH SUMMARY: DISCOVER

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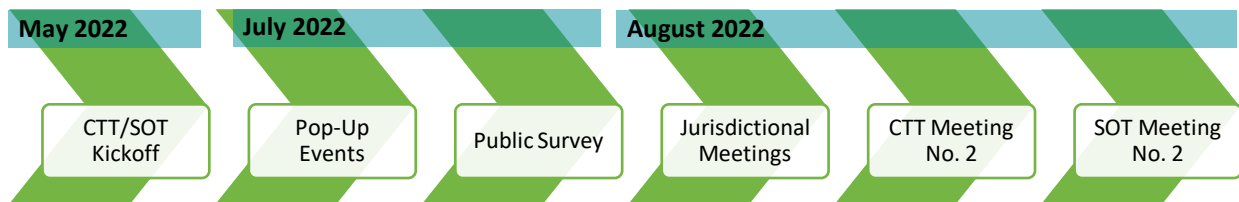
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## Executive Summary

### Purpose of Engagement

Phase 1 of the engagement process involved raising awareness and educating the public about the Southeast Area Study (SEAS) Update while discovering public sentiments and concerns. This phase focused on outreach to inform the development of goals, visioning, and issues. Phase 1 engagement lasted from May through August 2022.

#### ENGAGEMENT TIMELINE



### Engaging with Committees

Phase 1 Engagement included a series of meetings with the Core Technical Team (CTT) and Stakeholder Oversight Team (SOT) to get a higher level look at what has been done since the 2017 SEAS and big picture concerns.

Work with the CTT and SOT began with a kickoff meeting in May 2022. Committee members were asked what they love about the survey area and what they'd most want the plan to address. Most comments about what members loved focused on the rural and small town feel with proximity to the city. Traffic, walkability and bike/ped infrastructure, public transportation, the link between transportation and land use, and economic growth were some of the most reiterated things for the plan to address.

The meeting also included a mapping activity where members were asked to map and comment on places, transportation, and other ideas or concerns. These included development sites for different uses (along with general development opportunities), downtowns to be preserved and enhanced, areas of congestion, roadways in need of improvement, opportunities for public transit and areas with need for bike/pedestrian infrastructure.

The project team also held meetings with planners from the different jurisdictions within the planning area in early August 2022 to get more specific feedback on each municipality's needs. Planners discussed the state of each municipality, areas of progress, lingering or emerging needs since the 2017 SEAS, their understanding of public sentiments in their jurisdictions, and their number one priority issues.

After the jurisdiction group meetings, two final meetings with the CTT and SOT respectively were held to discuss the comments received from the various jurisdictions and other previous engagement and to review implications and key takeaways. These meetings also kicked off scenario development.



## Engaging with the Public

The project team also engaged the public through eight pop-up tables at events and destinations throughout the study area in July 2022, as well as an online survey open for responses throughout July 2022.

Pop-ups were located at events like downtown festivals and farmers' markets or at locations like the Garner regional library on days of scheduled activities in hopes of meeting people where they were. Each pop-up included a board explaining the project, a mapping activity board where participants were asked to map and comment on places, transportation, or other ideas or concerns, and a vision and goals board that asked people to give one word about their hopes for the Southeast Area.

Most mapping comments were about places that need intersection improvements for safety or congestion, while several others left comments on alternative modes such as public transit and bike lanes. Other comments addressed disparities in school quality and a demand for restaurants near new employment centers. Comments on the vision board centered around safety and navigation, transportation alternatives, and growth patterns. Fewer responses were received at the pop-up events than the project team had hoped, but the feedback received provided additional info to supplement the results from other engagement activities.

The online survey included general questions about vision, transportation priorities, and growth preferences, as well as a series of interactive map questions for people to map their ideas and areas of concern. Through the survey, public comments were received from people across the study area, with the vast majority living in the study area or having other meaningful connection to the area.

Livability was the most important guiding principle to survey respondents, emphasizing quality of life, local character, public health, and art and recreation. Traffic flow and sustainable growth were also ranked very important. Concerns about congestion, traffic flow, and a need for safe and reliable alternatives to get cars off congested arteries dominated the transportation responses, while the land use section indicated a desire to allow but limit growth and to try for more shops/job growth rather than increased residential. In the interactive mapping section, respondents marked problem spots for congestion, driver safety, and bike/pedestrian access, along with natural areas to preserve, potential areas for increased development, and limitations like school capacity.

## Success and Next Steps

The following table identifies how successful this phase of engagement was by the performance measures established in the Public Engagement Plan (PEP). All of the measures were met and the method through which they were achieved is detailed in the table as well. Though they were met, improvements can still be made. The second phase of engagement should attempt to reach lower income households, those in the age demographic younger than 17 and greater percentage of minority population, especially those of Hispanic or Latino ethnicity.

**MEASURES OF SUCCESS**

Measure	Indicator	Met	Achieved With
<b>Number</b>	Active participation by SOT/CTT members through events they attend/host, social media posts/emails they send	✓	Pop-up events; CTT/SOT meetings; outreach toolbox
	Project email updates sent at the beginning and end of each public engagement phase	✓	Email updates
	Geographic coverage of study area in event locations and social media targeting	✓	Social media blasts; pop-up events; zip codes of survey
	Materials translated to or available in Spanish	✓	Website, video, online survey, pop-up event materials
<b>Inclusivity</b>	Ensuring that engagement materials and activities are broadly available in four ways:		
	Across a variety of mediums (i.e., online, in-person, and passively)	✓	Website; video; pop-up events; online survey
	Dispersed geographically (i.e., in both the urban and rural areas of the study area)	✓	Pop-up events; zip codes of survey
	Cognizant of user types (i.e., commuters, visitors, residents, recreational users, renters, property owners, etc.)	✓	Pop-up events; online survey; social media
	Accessible to a diverse audience regardless of race, ethnicity, sex, education level, disability, or language	✓	Pop-up events; website; social media
<b>Quality</b>	The intentional timing of engagement with project milestones to ensure feedback aligns with decision points	✓	Visioning; Guiding Principles; Needs Identification
	The evaluation of feedback for its value added to the planning process	✓	Visioning; Guiding Principles; Needs Identification

**NEXT STEPS**

Taking the feedback received from committee members and using it to create a first set of draft recommendations. Those recommendations will then be brought back to the public and committees for feedback and changes as part of Phase 2 engagement.



# Engagement Approach

## Purpose and Goals

Phase 1 of the engagement process involved raising awareness and educating the public about the SEAS Update while listening to public sentiments and concerns. This phase focused on outreach to inform the development of goals, visioning, and issues. Phase 1 engagement lasted from May through August 2022.

## Promotion Methods

The following platforms were used to advertise and promote awareness of the SEAS Update.

### TRAIN THE TRAINER LUNCH AND LEARN (JULY 11)

The CTT and SOT members were invited to join a virtual lunch-and-learn on July 11, 2022. In this information session, members were given an overview of the outreach materials, became familiarized with the “Outreach Toolbox,” scheduled pop-up, and the ways in which they could help promote this round of engagement.

### EMAIL AND SMS MESSAGE BLAST

An email blast welcoming recipients to the process and letting them know about the online survey open in July was sent out on July 15<sup>th</sup> to over 1,200 email addresses. Identical information was also sent out on July 15<sup>th</sup> via text message to 19 mobile sign ups.

### SOCIAL MEDIA POSTS

Between July and August, 13 social posts about different parts of the SEAS Update were made across Twitter, Facebook, and Instagram, including posts about pop up events across the study area and news articles about the project.

#### SEAS UPDATE SOCIAL MEDIA - PHASE 1 ENGAGEMENT - JULY 2022

n/p = not posted to this platform		Twitter		Facebook		Instagram
Date	Content Notes	Retweet	Likes	Share	Like	Likes
4-Aug	WRAL article	n/p	n/p			n/p
29-Jul	Garner Popup	4	2		1	1
28-Jul	Clayton/JoCo Popup	1	1	3		
27-Jul	General			7		
26-Jul	Garner Popup	5	4			
24-Jul	Smithfield (Brightleaf Flea)	3	3			
22-Jul	Clayton/JoCo Popup			n/p	n/p	n/p
21-Jul	Selma Popup	1	1	n/p	n/p	n/p
20-Jul	General (eblast/video link)	n/p	n/p	10		2
15-Jul	General (eblast link)	7	7	2		3
12-Jul	General (video)	3	2	2	3	1
11-Jul	General (map)	1	1	5	3	
11-Jul	General (logo)	8	3	1		3

## Outreach Materials

The following materials were developed, and platforms used to collect feedback during Phase 1 Engagement. These are included in Appendix C.

### OUTREACH TOOLBOX

Committee members were provided with an “Outreach Toolbox” located on the project website that included email and social media post templates to further engage and spread awareness of the SEAS Update in their communities.

### ONE-PAGER

An informational one-pager was shared with CTT and SOT members, shared via email, and brought to the pop-up events.

### BOOKMARKS

Bookmarks advertising the project and providing a QR code to the project website were given to CTT members to display at town halls or bring to council and board meetings. These were also handed out at the pop-up events.

### NARRATED PRESENTATION

The project team recorded a brief narrated presentation that gave an overview of the study, reviewed the project timeline, and advertised the upcoming engagement opportunities.

### POP-UP EVENT BOARDS

Each pop-up event included three boards; one with project background and information, and two intended to collect visioning feedback and identify needs regarding transportation and land use.

## Events and Activities

The following section describes the events and activities that occurred during Phase 1 Engagement. The full summaries of each event are included in the appendices.

### CTT/SOT KICKOFF MEETING (MAY 19TH)

The kickoff meeting on May 19<sup>th</sup> introduced the CTT and SOT to the plan and process, get initial feedback from them, and establish roles.

The committee members listed plans and projects they recently completed or are currently working on within the study area. The committee members were also asked to help identify underrepresented stakeholders that need to be included in the SEAS update and who they could bring into the process.

For initial feedback on the study area, committee members were asked what they love about the study area and what they would most want the plan to address. The meeting also included a mapping activity where members were asked to map and comment on places, transportation, and other ideas or concerns.

### POP-UP EVENTS (THROUGHOUT JULY)

Eight pop-up events were held across the study area during July 2022 to engage with people in person for feedback regarding vision and goal setting and issue identification.





*A picture of a pop-up event at the Southeast Regional Library in Garner.*

Pop-ups were located at events like downtown festivals and farmers' markets or at locations like the Garner regional library on days of scheduled activities in hopes of meeting people where they were. Each pop-up included a board explaining the project, a mapping activity board where participants were asked to map and comment on places, transportation, or other ideas or concerns, and a vision and goals board that asked people to give one word about their hopes for the Southeast Area.

### **PUBLIC SURVEY (OPEN DURING JULY)**

A public survey using the Public Input platform to target online feedback regarding issue identification and vision and goal setting. The survey was open for open for most of the month of July and included general questions about overarching vision, transportation priorities, and growth preferences, as well as a series of interactive map questions for people to map their ideas and areas of concern. The survey also asked a series of demographic questions about respondents' relation to the study area.

### JURISDICTIONAL GROUP MEETINGS (8/3, 8/4, 8/5)

The project team also had meetings with planners from the different jurisdictions within the planning area in early August 2022 to get more specific feedback on each municipality's needs. Three meetings were held, each focusing on a specific group of jurisdictions.

- August 3<sup>rd</sup>: Archer Lodge, Clayton, Garner, Raleigh, Wake and Johnston Counties
- August 4<sup>th</sup>: Benson, Four Oaks, Pine Level, Kenly, and Johnston County
- August 5<sup>th</sup>: Smithfield, Selma, Wilson's Mills, and Johnston County

Planners discussed the state of things in each municipality, focusing on transportation and land use conditions, lingering or emerging needs since the 2017 SEAS, areas of progress towards fixing issues or meeting goals including plan updates and projects underway, their understanding of public sentiments in their jurisdictions, and their number one priority issues.

### CTT MEETING (8/19)

Later in August the project team held a hybrid meeting that took place in-person at the Clayton Town Hall and virtually on Microsoft Teams. CTT members were able to elect the method by which they attended. This meeting kicked-off the scenario planning development of the SEAS Update with introductory and background information about scenario planning.

At the meeting, CTT members were tasked with updating and validating the existing land use place type and development status data via a mapping activity. Members who attended in person wrote on physical maps in the room, and members who attended virtually could provide comments on an online web-based mapping platform. The results of the mapping activity resulted in the study's first scenario, the Existing Land Use scenario.

### SOT MEETING (8/23)

Following the CTT meeting, the whole SOT was brought together in a virtual meeting. In this meeting, SOT members were given a project update including a summary of the public survey, the pop-up events, and the jurisdictional meetings. The SOT was given information on the scenario planning process and answered interactive polling questions to inform scenario development.

# Engagement Results

## Demographics and Representation

### CTT/SOT

The Core Technical Team includes individuals from planning departments across the study area jurisdictions as well as people with CAMPO, UCRPO, and NCDOT. Entities represented include:

- Archer Lodge
- Benson
- CAMPO (MCC, TRM, Wake Transit)
- Clayton
- Four Oaks
- Garner
- GoRaleigh
- GoTriangle
- GoWake Access Transportation Advisory Board
- Johnston County
- NCDOT TPD
- NCDOT-Div 4
- NCDOT-Div 5
- Raleigh
- Selma
- Smithfield
- UCRPO
- Wake County
- Wilson's Mills

The Stakeholder Oversight Team includes individuals from town and county leadership from jurisdictions in and surrounding the study area, as well as representatives from different agencies and organizations including school systems, the Triangle J COG, area chambers of commerce, visitors' bureaus, transit systems (and rider representatives), and advocacy groups for things like parks, land conservation, and transportation options. Major employers Grifols and Novo Nordisk also had representatives on the committee. Locations and agencies represented include:

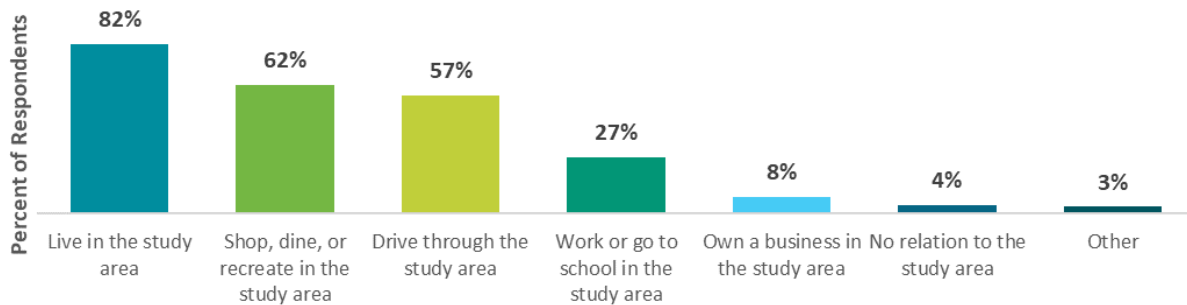
- Benson
- Clayton
- Clayton Chamber of Commerce
- Community Partner Network of Raleigh
- Garner
- Garner- Transit/Transportation Citizen Representative
- GoRaleigh
- GoTriangle
- Grifols
- JCATS
- Johnston County
- Johnston County Association of Realtors
- Johnston County Parks, Greenways, and Open Space
- Johnston County Visitors Bureau
- Johnston-Lee-Harnett Community Action
- Knightdale
- NCDOT Rail
- NCDOT TPD
- NCDOT-Div 5
- Novo Nordisk
- Raleigh
- RTA
- Selma
- TJCOG
- Triangle East Chamber
- Triangle Land Conservancy
- Triangle Transportation Choices
- Wake County Schools
- Wake County Planning Board
- Wake up Wake County
- Zebulon

POP-UP EVENTS

Pop-up engagement events were held at events and locations across the study area in Smithfield (both near downtown and in South Smithfield towards Four Oaks) Selma, Clayton, Garner, and Wilson’s Mills to reach and engage with different communities at major events and popular destinations. These events met the public in places they were already visiting, allowing for some feedback but mostly as an opportunity to promote the project and spread awareness.

PUBLIC SURVEY

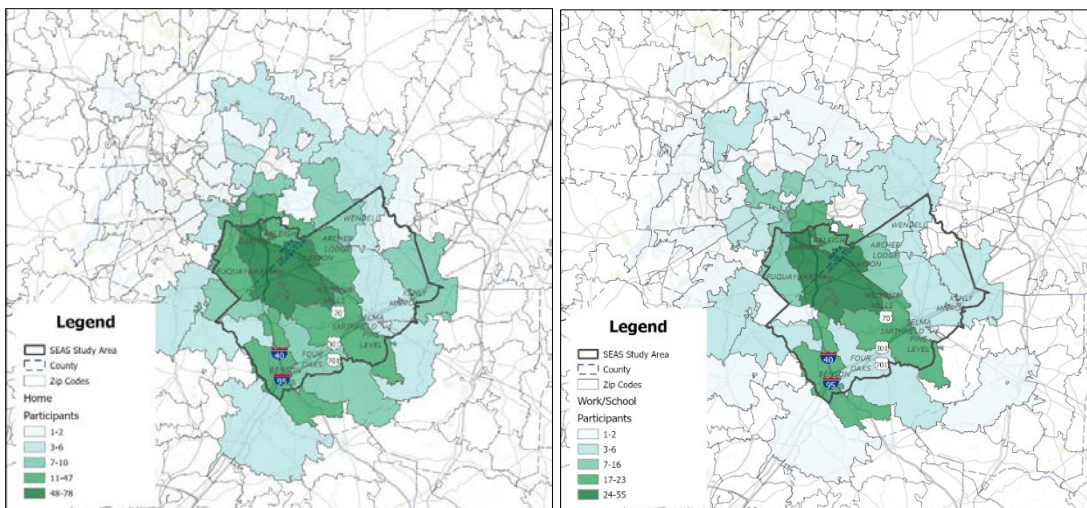
To ensure that the survey responses reflected the views of people who live, shop, work, or are otherwise invested in the study area, respondents were asked to describe their relation to the study area by choosing the options that described them from a list. 82% responded that they lived in the study area, and a majority also shopped, dined, or recreated within the study area and/or drove through the study area. A significant amount (about a fourth) also worked or went to school in the study area.



The survey also collected zip codes to get a better understanding of where respondents were from. Of those who answered, most lived in or very close to the study area, with at least one participant from every zip code within the area. Roughly the same pattern emerged in where people worked and went to school, through with slightly more respondents working in the Raleigh area. In all, 86.2% of survey respondents who answered the zip code questions lived in study area zip codes, and 66.1% worked in study area zip codes.

Home Zip Codes

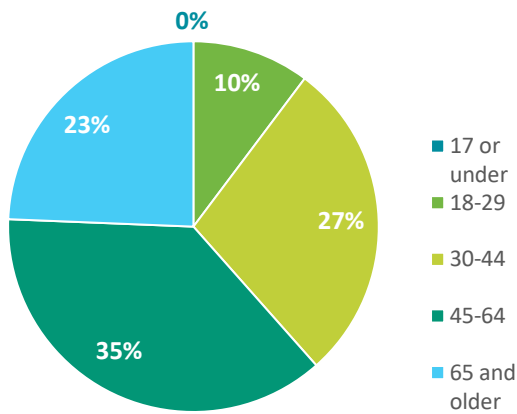
Work/School Zip Codes



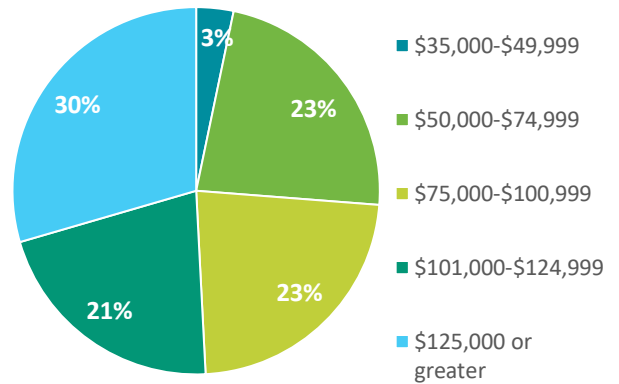


Participants who took the survey and answered the demographic questions were distributed fairly evenly across all age and income ranges with the exception of those under 17 years of age and those with a household income of less than \$50,000. Moving forward, engagement should attempt to reach more lower income groups of people.

**What is your age group?**

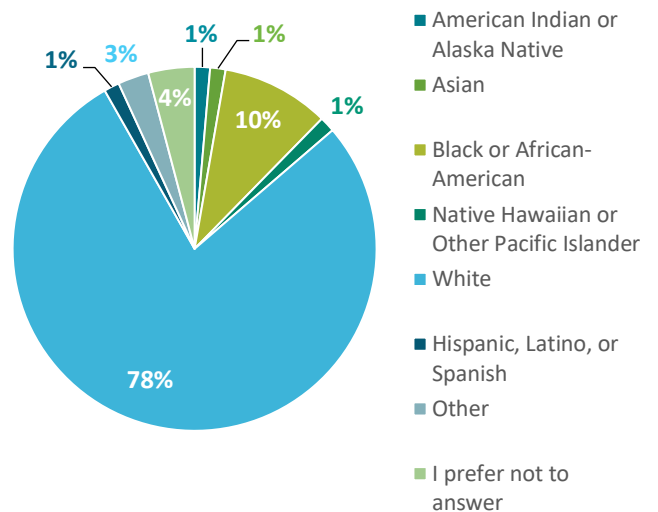


**What is your household income range?**



Approximately 78% of participants who also answered the demographic questions were white, this is about 10% greater than the study area’s white population. About 22% of the respondents answered that they were people of color, with the largest (10%) being Black or African American. This representation is about 10% less than the representation of people of color in the study area according to the 2020 Census. While the racial representation of those who took the SEAS Update survey is not extremely far off from the demographic makeup of the study area, future outreach efforts should strive to match the demographic makeup even more closely.

**What is your race/ethnicity?**



## Themes and Key Takeaways

The following section identifies themes that arose from the feedback received from Phase 1 Engagement. Themes are organized by transportation and land use topics and key takeaways are identified for each theme.

### ROADWAY

#### **Improve congestion and prepare for future traffic with incoming growth**

- Rural congestion was noted as a problem, as rural roads were not made to handle current/projected levels of traffic
- Congestion on routes into the Triangle, both rural routes and highways
- Traffic congestion seen as the worst transportation issue by far in survey
- “Traffic Flow” (reducing congestion, improving roadway operations) seen as second most important guiding principle
- Problem intersections with congestion issues
- Lack of alternatives to driving on major corridors worsens traffic
  - Limited or non-existent transit options
  - Lack of safe ways to walk or bike to destinations
  - Concentration of shops and jobs in certain towns, requiring driving longer distances for many to reach
  - Lack of connections between developments, minor roads concentrate traffic onto larger already-congested roadways
- Emphasis on keeping traffic from worsening on major arteries
  - Reducing how much/how far people must drive for shopping, groceries, parks, libraries, and other amenities
  - Roadway connections that provide alternatives to major arteries for local traffic, bypasses for through traffic
- Some major corridors are being or need widening to address flow, expected growth (ex. NC-42 from two lane rural road to divided four-lane highway)

### BIKE/PED

#### **Create regional connectivity for bicyclists and pedestrians**

- Increased desire for bike/ped facilities connecting different jurisdictions, communities across the region
  - Neuse River Trail Extension & future connections will help
- Greenways and shared use paths parallel to major travel corridors that can act as alternatives to driving
  - Part of multimodal strategy- should connect to transit stations/connections, etc.
  - Need access points to communities, developments along routes
- Bike lanes or shared-use paths along major corridors
  - Shared-use paths can help address both bike & ped needs
- Connections between major destinations (shopping, schools, etc.) and residential developments

**Make communities more walkable and bikeable through infrastructure and safety improvements**

- Safe walkability within communities, jurisdictions in high demand
- Safety and lack of adequate pedestrian facilities 3rd and 4th highest transportation priorities in survey, relatively high emphasis
- Both maintenance of existing sidewalk networks and expansion needed
- Safe pedestrian crossings for major arteries, highways, rail corridors, etc.
- Providing dedicated paths/lanes that get cyclists and pedestrians out of traffic lanes, protect from traffic
  - Protected bike lanes and bike intersections in dense areas

## TRANSIT

**Make transit a viable alternative to driving**

- Emphasis on transit as opportunity for mode shift to relieve congestion
  - Lack of adequate transit second biggest transportation priority in survey, partially because of transit as an alternative to driving on congested roads per comments
- Prioritize regional transit connections between study area and Triangle
  - Alternatives to congested car commute
- Coordinate transit with land use strategy
  - Areas of transit-supportive density around routes could help support residential growth with less of a growth in car traffic
  - Affordable housing with transit access needed
- Will need first-mile last-mile connection options for routes into Triangle
  - Adequate park-and-rides
  - Connections to greenways, walking trails, bike lanes for walking/biking to and from stops/stations
  - Potentially neighborhood bus routes where possible, though likely far future
- Potential for microtransit within communities & areas not dense enough to support fixed route service
- Consider needs of individuals who need alternatives to driving (ex. senior citizens aging in place)

## LAND USE/DEVELOPMENT

**Growth with purpose and direction by balancing it with both community and natural area preservation**

- Area growing very fast, especially high residential growth
- Population seems increasingly okay with growth, but sees need to moderate growth
- Cannot be at the expense of livability/community character
  - Livability most important guiding principle in survey- "...quality of life through transportation and land use decisions that support public health, education, parks and recreation, public art, and local character"
- Infrastructure like water/sewer, internet, and schools need to be able to keep up with and support growth
- Ensure rural, agricultural areas, natural areas are preserved

- Rural/country/natural character is part of what people love about the area- work to preserve
- Development tailored to needs of each community (level of density, types, mix of uses)
- Density as compact walkable nodes/corridors along highways, transit corridors, in central/downtown areas
  - Avoid encroachment on rural/agricultural areas
  - Avoid uncontrolled sprawl/development patterns that could worsen congestion
- Desire to attract more shops, jobs to help fill gaps of missing amenities in different communities
  - Shopping, restaurants, destinations in each community help take people off the road, reduce need to drive longer distance to reach amenities in other communities
  - Growth in local jobs that don't require a commute to the Triangle
  - Less increase in congestion than residential growth
  - Food deserts that need grocery stores/supermarkets
- Desire for more public amenities (parks, libraries, etc.) in areas that currently lack them
  - Unincorporated parts of the study area, especially in west Johnston County

## EQUITY

### **Ensure recommendations are developed through a lens of equitability**

- Committees and jurisdictions noted equity needed to be a focus of the study

## Next Steps

The project team will take the feedback we received from this first phase of engagement and use it to create a first draft of recommendations that will be taken into the second phase of engagement.

Phase 2 engagement will involve presenting initial study findings back to the CTT, SOT, and public through an educational approach with the goal of seeking valuable input on draft recommendations.

Phase 2 engagement is anticipated to last from September 2022 through March 2023.

# APPENDICES





## Appendix A: CTT and SOT Meeting Summaries



A

# SEAS

S O U T H E A S T   A R E A   S T U D Y

## UPDATE

**What:** Joint Core Technical Team and Stakeholder Oversight Team Kickoff Meeting

**When:** Thursday, May 19, 2022  
2 - 4 pm

**Where:** Zoom | <https://zoom.us/join>  
Meeting ID: 968 9607 4165  
Passcode: 890220  
Phone: +1 301 715 8592

## SEAS UPDATE CTT/SOT KICKOFF MEETING

### Introduction

This document summarizes the Southeast Area Study (SEAS) Update kickoff meeting with the project's Core Technical Team (CTT) and Stakeholder Oversight Team (SOT). This summary provides an overview of the meeting agenda, presentation, and discussion. It's accompanied by a video recording of the meeting and a presentation that includes the results of the interactive polling. These items are found on the project website at: <https://seareastudyupdate.com/>

### Summary

#### Introductions

The project team initiated the meeting by reviewing the agenda and explaining meeting logistics including the use of the online interactive polling tool, Mentimeter. The project team then established the purpose and intended outcome of the meeting, shown in the table below. Introductions began by highlighting the partnership between the Capital Area Metropolitan Planning Organization (CAMPO), the Upper Coastal Plain Rural Planning Organization (UCPRPO), and the North Carolina Department of Transportation (NCDOT) that is involved in the development of the SEAS Update. Following introductions of the project team, participants were asked to introduce themselves using the polling feature. The meeting had a total of 72 attendees. The full participant list is included as an attachment at the end of this document.

<i>Meeting Purpose</i>	<i>Meeting Outcome</i>
The objective of this meeting was to initiate the SEAS Update with both the Core Technical Team (CTT) and Stakeholder Oversight Team (SOT) members.	Members came away with a clear understanding of the 2017 SEAS, the purpose of the SEAS Update, and their role and responsibility in the planning process. Participants also initiated conversations about opportunities and challenges facing the Southeast Area.

## Project Background

### WHAT'S BEEN ACCOMPLISHED AND WHAT'S CHANGED

In the next section, the project team detailed the purpose of the study which is to integrate land use and transportation planning in an effort to accommodate existing and future travel needs through recommendations that will ultimately be included in the next Metropolitan Transportation Plan (MTP) update. The presenters then identified roadway improvement projects that have been accomplished since the 2017 SEAS. Meeting participants were then asked to identify completed and ongoing plans in their jurisdictions because these plans will inform the SEAS Update. The answers are displayed below. The presenter then demonstrated changes from 2017 by comparing the previous study area boundary to the new one which extends east of I-95.

#### *Are there plans or projects that you have completed since 2017 or have underway?*

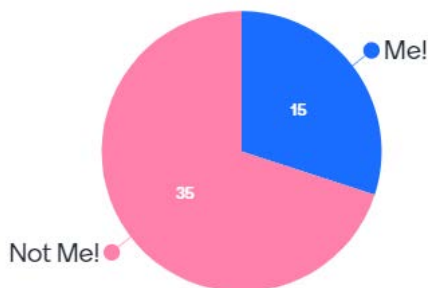
- |   |   |  |
|---|---|--|
| <ul style="list-style-type: none"> <li>• 2020 Raleigh-Fayetteville passenger rail study, 2019 Commuter Corridor Study, R.E.D. Priority Bus Lanes Study</li> <li>• 2045 Growth Plan; Unified Development Code Update; Future I-42/NC 42 Small Area Plan; Downtown Master Plan Update</li> <li>• 3 small area plans - along 540 corridor (2022/2023) upcoming</li> <li>• Benson Exit 79 interchange and roundabout at Us 301 and Hwy 50 begins soon</li> <li>• BRT extension to Knightdale, BRT corridor to Garner, and the commuter rail to Clayton</li> <li>• CAMPO Northeast Area Study Update completed last year</li> <li>• Capital Boulevard North Corridor Study- City of Raleigh goes to council this summer</li> <li>• Commuter rail technical study will be completed this summer</li> <li>• Completed Local Comprehensive Transportation Plan 2021.</li> <li>• County Wide Recreation Master Plan Update 2020 Neuse River Trail Feasibility Study (MST and ECG) Scheduled to complete June 2022 Johnston County Comprehensive Trail and Greenway Plan (Grant Applied For)</li> <li>• Development and opening of new Wake County Public Schools in/near the study area</li> <li>• Eastfield Crossing project (Exits 97 and 98 of I-95); Selma 2040 LUP</li> <li>• Four Oaks Under way</li> <li>• Garner - Character and Land Use elements update (2022 - upcoming)</li> <li>• Garner Forward - Comprehensive Land Use Plan &amp; Transportation Plan Update;</li> </ul> | <ul style="list-style-type: none"> <li>Garner Transit Plan; Garner UDO Update</li> <li>• Garner Pedestrian Plan (underway)</li> <li>• Greater Triangle Commuter Rail impacts the SEAS area (Raleigh-Garner-Clayton portion)</li> <li>• Habitat Wake's Garner development</li> <li>• JCATS long range plan</li> <li>• JoCo Land use plan update</li> <li>• Johnston Co. Land Use Plan</li> <li>• Johnston County Neuse river trail Commuter rail Transportation plan concurrent with SEAS</li> <li>• Mobility Management Implementation Study underway</li> <li>• Neuse River Trail Feasibility Study</li> <li>• New UDO, New Comprehensive Land Use Plan, new Future Land Use Plan, Working on Transportation Study</li> <li>• New Unified Development Ordinance for the Town of Archer Lodge, Working on updates to Comprehensive Land Use Plan</li> <li>• Open space preservation via Triangle Land Conservancy (Marks Creek, Walnut Hill/Williamson Preserve and Smithfield/Johnston Co.)</li> <li>• Planning for Unified Development Code Update; Completed Comprehensive Land Use Plan</li> <li>• PLANWake Wake County Comprehensive Plan; Lower Swift Creek Area Plan (first of six area plans)</li> <li>• PLANWake; Lower Swift Creek Area Plan</li> <li>• Proposed Amendments to Wake County Voluntary Agricultural Districts Code Ordinance</li> </ul> | <ul style="list-style-type: none"> <li>• Public transportation-rapid bus or rail</li> <li>• Raleigh Community Climate Action Plan</li> <li>• Raleigh Southeast Special Study, in progress expected for Council review in July</li> <li>• Rapid Bus Extension Major Investment Study - Garner to Clayton is underway</li> <li>• Robeson County CTP - underway</li> <li>• Smithfield Ped Plan</li> <li>• Smithfield updated its comp plan and transportation plan using K-H. Data has already been sent.</li> <li>• Smithfield's transportation and land use plan was completed.</li> <li>• Southeast Special Area Study- City of Raleigh</li> <li>• Southern and Western BRT, Station Area Planning- Design Phase</li> <li>• The Town of Knightdale is underway with a Comprehensive Transportation Plan. Adoption is anticipated in early fall 2022.</li> <li>• TJCOG Land Use and Affordable Housing analysis done as part of the Greater Triangle Commuter Rail study.</li> <li>• Town of Benson Community Transportation Plan and Comprehensive land use plan</li> <li>• US 70 upgrade to Interstate I-42</li> <li>• W-5704E and 80094</li> <li>• Wake County Board of Education 7-year Capital Improvement Plan Update</li> <li>• Wake County Consolidated Open Space, Affordable Housing</li> <li>• Wake County Health Needs Assessment</li> <li>• Wake Transit Plan Update</li> <li>• White Oak Roundabout (Hebron Church/Ackerman roads)</li> </ul> |
|---|---|--|

## SCHEDULE AND INVOLVEMENT

Next, the project team talked through the 15-month planning process and the project schedule, detailing what would occur during each phase of the study. The CTT and SOT members were then informed of their job descriptions, as defined in the table below. Participants were then asked to vote in a poll indicating their involvement in the SEAS in 2017, shown in the pie chart below. To close this section of the presentation, the project team explained the other parties involved in this process including the CAMPO Technical Coordinating Committee (TCC) and Executive Board, elected officials, local jurisdiction members, key community stakeholders, and the general public.

<i>SOT Job Description</i>	<i>CTT Job Description</i>
<ul style="list-style-type: none"> <li>• Represent diverse community interests</li> <li>• Provide guidance and direction on substance</li> <li>• Provide input at key decision points</li> <li>• Participate at public events</li> <li>• Disseminate information through individual networks</li> <li>• Meet formally up to <b>four times</b> at key steps</li> </ul>	<ul style="list-style-type: none"> <li>• Represent various planning entities and jurisdictions within the southeast area in the process and substance of the plan</li> <li>• Provide local insight and institutional knowledge on planning issues</li> <li>• Aid in engagement and communication</li> <li>• Plan liaison for agency staff, elected officials, and SOT</li> <li>• Meet formally up to <b>seven times</b> and informally throughout</li> </ul>

*How many of you participated in the 2017 SEAS?*



## Public Engagement Plan and Member Involvement

In the next section of the presentation, the project team discussed the engagement strategy for the SEAS Update which is broken up into three phases:

- Phase 1: *Discover*: Educate the public after a review of previous studies and data collection to seek input on vision, goals, and study area challenges
- Phase 2: *Involve*: Educate the public about Phase 1 public input, alternative options, and seek input on potential preferred/recommended alternatives
- Phase 3: *Consult*: Present final recommendations to the public for review and comment

The events and activities planned to occur during each of the phases are detailed in the Public Engagement Plan (PEP). The PEP also establishes engagement goals and performance measures to guide participation and outreach throughout the planning process. The project team then emphasized the importance of involving historically underrepresented communities in the process and asked attendees for resources to engage these communities. The members were then asked to provide any contacts for stakeholders that need to be active participants in this process. The answers provided to those two questions are below. The feedback received was used to inform the PEP.

*What are some historically underrepresented neighborhoods/businesses/organizations in your area?*

- Affordable Housing Advocates/Developers (DHIC/Raleigh-based)
- African American pop
- Agricultural areas. Sharing road with vehicles
- All chambers in the area map
- Are there especially large multifamily developments/complexes?
- Churches known for partnering to help spread the word, etc?
- Blind Disabled
- Brightleaf Fleamarket
- business in general
- CASA?
- child and elder care providers
- Community and senior services
- Community and Senior Services in Smithfield
- Commuters - both residents of the area that commute out daily (big percentage) and others who commute into area daily. When, where are how to engage so their input can be captured.
- Directors of the Wake Health and Human Services Regional Centers
- El Centro Hispano
- Focus housing near transit and walkable nodes
- Food Banks
- Friends of Johnston County Parks Johnston County Ag Ext
- Hispanic and Latino populations (we have 40%); incredibly low income residents
- Homeless shelters
- Johnston County NAACP
- latino/hispanic organizations
- Local developers
- Low Income Areas
- mobile homes
- Mobile homes, agriculture, POCs
- Most Southeast Raleigh neighborhoods
- Non-profit organizations that serve underrepresented communities
- Our engagement efforts in this area have been challenging because of large size of area and lack of central gathering places.
- People that don't have a vehicle
- People with disabilities such as being wheelchair bound
- Progressive Men's Club (Smithfield)
- Raleigh Regional Association of Realtors
- Rental tenants (vs. landowners/business owners)
- residents living in public housing and mobile home park communities; farmers of all operations types and scales
- Residents/business beyond the study area that regularly travel the study area and stand to benefit from improvements.
- Seasonal / migrant farm workers and their families.
- Selma has underserved neighborhood of Hispanic, Black as well as poor Whites who have both housing and transportation issues.
- Small business owners- especially businesses focused on serving ethnic communities. Gaining trust in these communities takes time.
- Students needing to get to Johnston Community College campuses and workforce development center
- Support existing walkable nodes and create more.
- there are no real public transportation options in our area
- There are places along the 96 and 39 corridors south of Downtown Zebulon
- Tier 1 areas of JoCo to be more complete answer
- Transit dependent
- Use Regional Centers and churches to access poor people. Let them tell you what the issues are.
- Wake Tech (potentially on the edge of the area) or other community colleges

*What groups of people can you help bring into this process?*

- Affordable Housing Advocates/Developers (DHIC/Raleigh based)
- Also have done some recent outreach to apartment complex managers in Garner - typically are also residents.
- Benson Chamber of Commerce
- Chambers of Commerce, Relators Associations
- Churches, Regional Centers, Oak City Cares, JCATS drivers/staff
- Construction Waste Landfill
- Contacts with large, private landowners
- County Soil & Water Conservation Districts; Wake County Public Housing; Capital Area Workforce Development
- Department of Health/Health and Human Services
- Downtown Garner Association
- Everyone - Planning Board, community, BOC
- Food Bank of Central NC
- Garner Economic Development Corporation
- Garner Senior Center & PRCR Advisory Committee
- Johnston Co. Health Dept
- Johnston County Airport - JNX
- Johnston-Lee-Harnett Community Action, Inc.
- Local Housing Authorities
- Local Planning Boards
- Local religious, social organization leaders
- Neighborhood Associations
- Neuse River Resource Recovery Facility
- New Garner Indoor Recreation Center is open - high traffic. Also Senior Center is a good resource
- Progressive Men's Club Smithfield
- JoCo NAACP
- Friends of JoCo parks
- JoCo Ag Ext
- Public Schools (have had success sending information / links to public surveys to schools and then the teachers distribute to students who give it to their parents)
- Raleigh Regional Association of Realtors
- Recreational Partners and Schools. Friends of Johnston County Parks
- SNAP
- SRTS
- Triangle Land Conservancy
- Truck route considerations to alleviate bin town truck traffic
- Wake County Reentry Council
- Wake County Schools
- Contacts for Springfield Baptist Church and a few others in the area who have been doing expansion/development work
- WIC

The project team ended this section by explaining the information sharing logistics with the CTT and SOT. Members were also told that their facilitation of engagement in this process would be accompanied by an Outreach Toolbox—to be added to the project website—that includes educational information and resources for public involvement.

## Idea Gathering

The next portion of the meeting was an interactive activity intended to spur discussion and gather feedback about opportunities and challenges in the southeast area. The presenter first asked polling questions about what people most love about the study area and what opportunities this study can address. The answers to those questions are below.

### *What do you love most about the southeast area today?*

- Affordability (although this is shifting, it's still more affordable than neighboring areas)
- Agriculture and open space still around
- As for Garner, it's got that small town feel but is still close to everything...
- BBQ
- Closely located to major industry and education centers
- Community, close to city with town feel
- Convenience and affordability & opportunities for growth.
- Diversity of people. Unique towns. Safe.
- Downtown breweries and cool small businesses.
- Easy access to highways
- Farm stands and agribusiness
- Funding
- Get plans in place before homes are built. Subdivisions account for future transportation rather than the other way around
- Getting everyone to work together.
- Good highway system, in spite of ongoing work on I40!
- Growing more and more diverse each day, walkable neighborhoods
- growing more and more diverse each day, walkable neighborhoods
- Growth and job opportunities
- I love the rural setting, the natural areas, and the simpler life. It is hard to watch it disappear one development at a time.
- I think you will find this season a volatile time to speak in some communities if your methods are not culturally sensitive and open to their real challenges.
- I-40 improvements.
- Improving access for all, not just people in cars
- Improving coordination between land use and transportation
- Inclusion and equity
- Increase in development/market activity associated with I-540
- JCATS expansion
- Keeping small towns compact and walkable. Preserving natural areas and agriculture. Increasing opportunities for trails and biking. Making it easier to travel between towns and getting from the metro areas to the small towns without a car
- Laid back lifestyle and friendliness of people overall
- Location, location, location
- Main Street communities- shopping, local restaurants, and events
- Mountain to sea trail and east coast greenway other greenways
- Neuse river
- Neuse River and trail, Williamson Preserve
- Neuse River Trail
- Open space & rural feel
- Opportunities for families to live work learn and play
- Our location
- People in JoCo
- Politics
- Proximity to Ocean
- Proximity to Triangle area
- Quiet country setting. Away from the big city, even though I drive into Raleigh daily.
- Rural landscapes and buying foods from local farms.
- rural/small town feel
- Shopping opportunities, new residential housing stock
- Small town feel, access to many amenities
- Small town feel
- Small town feel/community close to urban areas and activities
- small town feeling
- Still holds onto a small town feel for the most part, and a "neighborly" atmosphere, despite the growth
- That plans today to be implemented in the next ten years will not be sufficient - think bigger
- That rural roads can handle the volume of traffic from growth
- The diversity of places. Rural, urban, suburban
- The long time it takes to build and make improvements
- The people
- The rolling landscape, trees and agriculture, Natural areas, and trails. Beautiful backroads and charming and walkable downtowns
- Transition farm to market road network to better match current/future development patterns
- Transportation options
- Transportation, housing, jobs, education
- Variety of lifestyles
- Vision for next 20 years and beyond



*What are some of the most important opportunities for this plan to address?*

- Address tools available for us to help keep congestion off of the main arteries.
- addressing congestion
- Affordable housing near transit
- Aging in place & access to transportation services for senior citizens
- Attitudes against managed growth
- Better bike facilities
- Bike & Ped accommodation
- bike facilities
- Bus routes that don't require me to go downtown and then catch a connection, it kill so much time...
- Climate change
- Connectivity
- Continued improvements to transportation infrastructure.
- Coordination with all freight Railroads
- Economic Development opportunities and impacts of transportation decisions and prioritization
- Economic growth
- Equity in transportation decision making
- FUNDING!!!!
- How to support that diversity of land uses - where you can have urban areas and farm/ag areas
- How travel patterns and project needs may change after 540 is fully completed
- I think you need to identify where people need to access public assistance and communicate with human services to understand in which communities their clients and participants live. They can provide a lot information about these communities.
- Identifying grocery store locations would help flag food deserts
- Inclusive planning
- Increase public transit opportunities for those who need it most
- Keeping Johnston county residents working in Johnston County
- Land use and transportation connection
- land use planning that is supportive of transportation investment decisions and vice versa
- Maintain livability and diversity
- Multimodal access for Selma, Smithfield, Wilson Mills as the populations expand will definitely be needed
- Multi-modal transportation
- One day Neighborhood routes in Garner, right now it's hard to ride transit due to having to park and ride
- Ongoing funding for road improvements, behind the eight ball on addressing traffic congestions in rural areas. Horrible traffic on rural roads.
- Planning for transit services
- public transportation needs
- Public transportation needs in RURAL communities in the project area
- Reduced VMTs
- Road Conditions
- Smart growth
- the need for multimodal transportation, rather than focusing on automobile dependent uses
- The Tomato Map (2050 congestion, even after factoring in all of the new highway improvements)
- Traffic
- Transit oriented development
- Transit supportive land use
- Transit, housing affordability, and land use
- transportation alternatives that provide for health and well-being while giving opportunities for varied experiences
- walkability
- Walkability and connectivity

**MAPPING ACTIVITY**

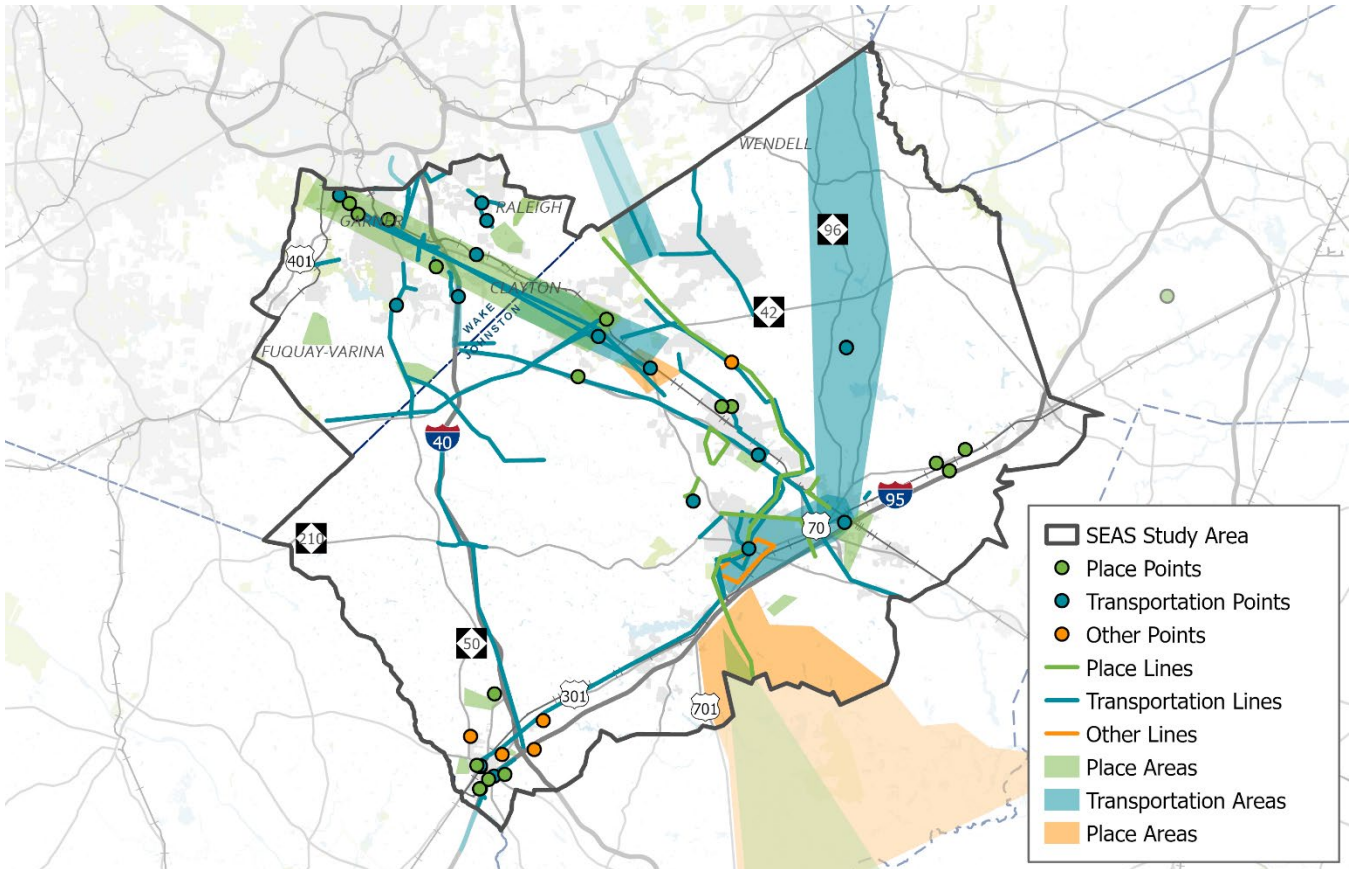
The next and final activity of the meeting was identifying needs and opportunities related to places, transportation, and any other ideas on an interactive online map. The mapping activity posed the questions below. The results of the activity are on the following page, both shown on a figure and summarized in a table.

**Activity Instructions**

<i>Places</i>	<i>Transportation</i>	<i>Other Ideas</i>
As the area grows, what would make the places better? Share your ideas about: <ul style="list-style-type: none"> <li>• Places that reflect well on the community</li> <li>• Places that need to be improved</li> <li>• Places that need to be protected, maintained, or preserved</li> </ul>	As the area grows, what would improve how people travel? Share your ideas about: <ul style="list-style-type: none"> <li>• Safety</li> <li>• Congestion</li> <li>• Transit</li> <li>• Bike/ped infrastructure</li> </ul>	What else should be considered in this plan? Share your ideas about: <ul style="list-style-type: none"> <li>• Utilities</li> <li>• Schools</li> <li>• Economic development</li> <li>• Regional collaboration</li> </ul>

**Activity Results**

The map below shows that needs and opportunities are mostly concentrated in the existing urban, or built, areas and along exiting roadways.



Places	Transportation	Other Ideas
<ul style="list-style-type: none"> <li>Schools and their student capacity were marked</li> <li>Development sites were identified for industrial, residential, and commercial land uses</li> <li>Downtowns to be preserved and enhanced were denoted</li> <li>General development opportunities were drawn</li> </ul>	<ul style="list-style-type: none"> <li>Areas of high traffic were highlighted</li> <li>Roadway and intersection improvement opportunities were noted</li> <li>Existing transit options and potential transit opportunities were identified</li> <li>Bike/ped improvements were marked</li> </ul>	<ul style="list-style-type: none"> <li>Comments identified areas of preservation and economic development</li> <li>Schools at or above capacity were noted</li> <li>Sewer expansion in Benson was marked</li> </ul>

**Wrap Up and Next Steps**

Following the interactive mapping and discussion, the project team wrapped up the presentation with a review of next steps which included launching the project website, initiating the State of the Region Report, and beginning Phase 1 engagement in July. The meeting concluded with the project team thanking the CTT and SOT members for their time and any closing remarks.

## Attachment 1 | Attendance List

First Name	Last Name	Agency	SEAS Role
Julie	Maybee	Archer Lodge	CTT
Erin	Joseph	Benson	CTT
Jerry	Medlin	Benson	SOT
Kimberly	Pickett	Benson	CTT
Bonnie	Parker	CAMPO	Project Team
Shelby	Powell	CAMPO	Project Team
Alex	Rickard	CAMPO	Project Team
Brandon	Watson	CAMPO	Project Team
Crystal	Odum	CAMPO - MCC	CTT
Mike	Bruff	CAMPO - TRM	CTT
Anna	Stokes	CAMPO - Wake Transit	CTT
Porter	Casey	Clayton	SOT
Ben	Howell	Clayton	CTT
Dana	Wooten	Clayton Chamber of Commerce	SOT
Frances	Bisby	Community Partner Network of Raleigh	SOT
Pauline	Ketchum	Four Oaks	CTT
Kathy	Behringer	Garner	SOT
John	Hodges	Garner	CTT
Gaby	Lontos-Lawlor	Garner	CTT
Ken	Marshburn	Garner	SOT
Jeff	Triezenberg	Garner	CTT
Elmo	Vance	Garner	SOT
Lamara	Williams-Jones	Garner - Transit/Transportation Citizen Representative	SOT
David	Eatman	GoRaleigh	SOT
David	Walker	GoRaleigh	CTT
Will	Allen	GoTriangle	SOT
Jay	Heikes	GoTriangle	CTT
Sharon	Peterson	GoWake Access Transportation Advisory Board	CTT
Brian	Stoker	Grifols	SOT
Neal	Davis	JCATS	SOT
Butch	Lawter	Johnston County	SOT
Braston	Newton	Johnston County	CTT
Bonnie	White	Johnston County Association of Realtors	SOT
Adrian	O'Neal	Johnston County Parks, Greenways, and Open Space	SOT
Donna	Bailey-Taylor	Johnston County Visitors Bureau	SOT
Tina	Ray	Johnston-Lee-Harnett Community Action, Inc.	SOT
Samantha	Borges	Kimley-Horn	Project Team
Allison	Fluitt	Kimley-Horn	Project Team
Kristina	Whitfield	Kimley-Horn	Project Team
Andrew	Spiliotis	Knightdale	SOT
Neil	Perry	NCDOT Rail	SOT
Carlos	Moya	NCDOT TPD	CTT
Scott	Walston	NCDOT TPD	SOT
Jennifer	Collins	NCDOT-Div 4	CTT
Sam	Lawhorn	NCDOT-Div 4	CTT
Bob	Deaton	NCDOT-Div 5	CTT
Brandon	Jones	NCDOT-Div 5	SOT
David	Keilson	NCDOT-Div 5	CTT
Shaylah	Nunn Jones	NovoNordisk	SOT
Anne	Conlon	Raleigh	CTT
Chris	Golden	Raleigh	SOT
Paul	Kallam	Raleigh	SOT
Bynum	Walter	Raleigh	SOT
Joe	Milazzo	RTA	SOT

SEAS Southeast Area Study Update  
 Joint CTT and SOT Kickoff Meeting Summary  
 May 19, 2022

First Name	Last Name	Agency	SEAS Role
Randy	Cahoon-Tingle	Selma	CTT
Bruce	McKay	Selma	SOT
Michael	Scott	Smithfield	CTT
Stephen	Wensman	Smithfield	CTT
Matt	Day	TJCOG	SOT
Maureen	McGuinness	Triangle East Chamber	SOT
Brenna	Thompson	Triangle Land Conservancy	SOT
Kim	Johnson	Triangle Transportation Choices	SOT
James	Salmons	UCPRPO	CTT
Betty	Parker	Wake Co Schools	SOT
Tim	Gardiner	Wake County	CTT
Akul	Nishawala	Wake County	CTT
Terry	Nolan	Wake County	CTT
Sharon	Peterson	Wake County	CTT
Asa	Fleming	Wake County Planning Board	SOT
Danny	Kadis	Wake County Planning Board	SOT
Nathan	Spencer	Wake up Wake County	SOT
Wendy	Oldham	Wilson's Mills	CTT
Mike	Clark	Zebulon	SOT

# SEAS

S O U T H E A S T   A R E A   S T U D Y

## UPDATE

**What:** Core Technical Team Meeting No.2

**When:** Friday, August 19, 2022  
1:00-2:30 pm

**Where:** Hybrid  
In-Person: Clayton Town Hall | 111 E. Second St  
Virtual: Microsoft Teams Call

## SEAS UPDATE CTT MEETING NO. 2

### Introduction

This document summarizes the second Core Technical Team (CTT) meeting for the Southeast Area Study (SEAS) Update. This summary provides an overview of the meeting agenda, presentation, and discussion, and is accompanied by the meeting presentation. A total of 31 people attended the meeting, including those in-person and online. The full participant list is included as an attachment at the end of this document.

### Summary

#### Project Progress

The project team initiated the meeting by introducing themselves, reviewing the agenda, and explaining meeting logistics including the unique hybrid format. The project team then established the purpose and intended outcome of the meeting, shown in the table below.

<i>Meeting Purpose</i>	<i>Meeting Outcome</i>
The objective of this meeting is to update the Core Technical Team (CTT) on project progress, finalize the plan's Vision and Guiding Principles, and initiate scenario planning.	Members will be informed of the plan's progress and be introduced to the scenario planning process in order to provide information on known developments and future land use.

Next, the presentation kicked off with some information about progress since the last meeting in July. The presenters reviewed some key results from the existing conditions analysis including demographic data and mobility trends in the SEAS area.

#### Phase 1 Engagement

The next portion of the presentation was a review of the public outreach efforts that occurred as part of Phase 1 Engagement. This included information about the advertising and social media sharing, the eight pop-up events that were held, initial online survey results, and the small group jurisdictional meetings.

The preliminary survey results showed that over 600 people took the survey, all living, working, or owning property in the study area. The jurisdictional meetings included in-person meetings in small groups with the jurisdictions involved in the SEAS. The project team shared the key takeaways from these meetings broken down by category. The takeaways spurred discussion between the CTT members about what it might mean to address safety issues and if that conflicts with congestion problems.

## Vision & Guiding Principles

The next part of the presentation presented the SEAS Update guiding principles using the SEAS guiding principles from 2017 as a starting point and feedback from the public survey to update and adjust them.

The CTT suggested some edits to wording and descriptions of the guiding principles. These edits were incorporated into the final guiding principles.

## Land Use Scenario Planning

Most of the meeting was spent discussing land use scenario planning and educating the CTT members about the process. The project team described the scenario planning process within the construct of the Five W's and H: who, what, where, when, why, and how.

### GROUP ACTIVITY

The CTT members were tasked with updating and validating the existing land use place type and development status data via a mapping activity. Members who attended in person wrote on physical maps in the room, and members who attended virtually could provide comments on an online web-based mapping platform.

The results of the mapping activity will result in the study's first scenario, the Existing Land Use scenario. These results will be included in upcoming documentation.

## Wrap Up and Next Steps

The project team wrapped up the presentation with a review of next steps including finalizing the Regional Snapshot existing conditions report. The team discussed upcoming meetings with the CTT, and asked the group to complete the breakout activity as a homework assignment.



## Attachment 1 | Attendance List

First Name	Last Name	Agency	SEAS Role
Erin	Joseph	Benson	CTT
Kimberly	Pickett	Benson	CTT
Bonnie	Parker	CAMPO	Project Team
Shelby	Powell	CAMPO	Project Team
Alex	Rickard	CAMPO	Project Team
Tim	Shortley	CAMPO	Project Team
Mike	Bruff	CAMPO - TRM	CTT
Anna	Stokes	CAMPO - Wake Transit	CTT
Ben	Howell	Clayton	CTT
Pauline	Ketchum	Four Oaks	CTT
John	Hodges	Garner	CTT
Gaby	Lontos-Lawlor	Garner	CTT
Braston	Newton	Johnston County	CTT
Samantha	Borges	Kimley-Horn	Project Team
Allison	Fluitt	Kimley-Horn	Project Team
Kristina	Whitfield	Kimley-Horn	Project Team
Nick	Morrison	NCDOT IMD	CTT
Brian	Murphy	NCDOT Safety	CTT
Phil	Geary	NCDOT TPD	CTT
Carlos	Moya-Astudillo	NCDOT TPD	CTT
Jennifer	Collins	NCDOT-Div 4	CTT
James	Salmons	NCDOT-Div 4	CTT
Bob	Deaton	NCDOT-Div 5	CTT
David	Keilson	NCDOT-Div 5	CTT
Don	Belk	Raleigh	CTT
Anne	Conlon	Raleigh	CTT
Chris	Golden	Raleigh	CTT
Randy	Cahoon-Tingle	Selma	CTT
Stephen	Wensman	Smithfield	CTT
Ben	Bearden	TJCOG	
Terry	Nolan	Wake County	CTT

# SEAS

S O U T H E A S T   A R E A   S T U D Y

## UPDATE

**What:** Stakeholder Oversight Team Meeting No. 2**When:** Tuesday, August 23, 2022  
11:00am - 12:30pm**Where:** Zoom (meeting link below)

# SEAS UPDATE SOT MEETING NO. 2

## Introduction

This document summarizes the second Stakeholder Oversight Team (SOT) meeting for the Southeast Area Study (SEAS) Update. This summary provides an overview of the meeting agenda, presentation, and discussion, and is accompanied by the meeting presentation and recording. A total of 63 people attended the meeting via Zoom. The full participant list is included as an attachment at the end of this document.

## Summary

### Project Progress

The project team initiated the meeting by introducing themselves, reviewing the agenda, and explaining meeting logistics including the use of an online polling tool. The project team then established the purpose and intended outcome of the meeting, shown in the table below.

<i>Meeting Purpose</i>	<i>Meeting Outcome</i>
The objective of this meeting is to update the Stakeholder Oversight Team (SOT) on project progress, finalize the plan's Vision and Guiding Principles, and introduce the members to scenario planning.	Members will be informed of the plan's progress and be introduced to the scenario planning process initiated during the most recent Core Technical Team (CTT) meeting.

Next, the presentation kicked off with some information about the progress since the last meeting in July. The presenters reviewed some key results from the existing conditions analysis including demographic data and mobility trends in the SEAS area.

### Phase 1 Engagement

The next portion of the presentation involved a review of the public outreach efforts that occurred as part of Phase 1 Engagement. This included information about the advertising and social media sharing, the eight pop-up events that were held, select online survey results, and the small group jurisdictional meetings.

The survey results showed that over 600 people took the survey, all living, working, or owning property in the study area. The project team shared some key takeaways from the survey feedback.

The jurisdictional meetings included in-person meetings in small groups with the jurisdictions involved in the SEAS. The project team shared the key takeaways from these meetings broken down by category. The project team emphasized that the takeaways would not be fully representative of the SEAS project area as a whole, but rather would provide ideas tailored to the different area communities.

Attendees also engaged in discussion about the role of transit for the future of the Southeast Area and asked about to what level of detail the SEAS Update transit recommendations would be. Shelby Powell clarified that the study would evaluate transit propensity throughout the study area, but recommendations would not result in specific routing designations.

## Vision & Guiding Principles

The next part of the presentation presented the SEAS Update guiding principles using the SEAS guiding principles from 2017 as a starting point and feedback from the public survey to update and adjust them. A consensus of the SOT approved of the draft guiding principles.

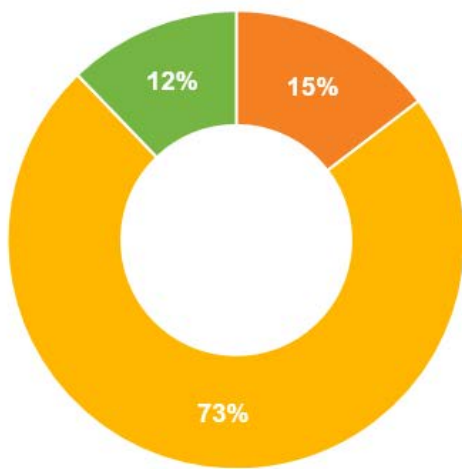
## Land Use Scenario Planning

Most of the meeting was spent discussing land use scenario planning and educating the SOT members about the process. The project team described the scenario planning process within the construct of the Five W's and H: who, what, where, when, why, and how.

### POLLING ACTIVITY

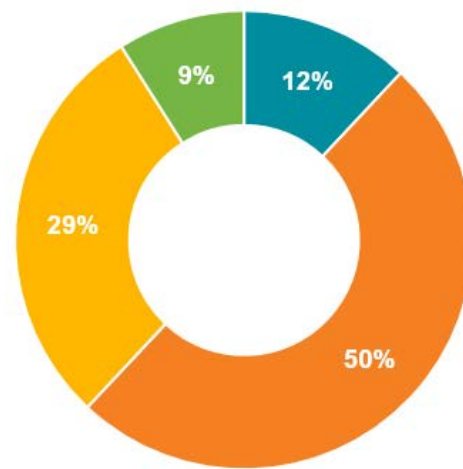
The interactive polling activity collected feedback to guide scenario development. This feedback was compared with survey results and some information from the 2017 SEAS to understand changes between 2017 and now, and where the SOT and the public might agree or disagree. The results of the online polling activity are below:

*How much growth is ideal for the Southeast Area?*



■ No growth    ■ A little growth  
 ■ More growth    ■ A lot of growth

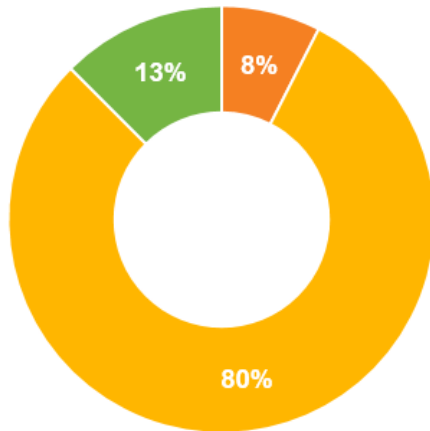
**SOT Feedback**



■ No growth    ■ A little growth  
 ■ More growth    ■ A lot of growth

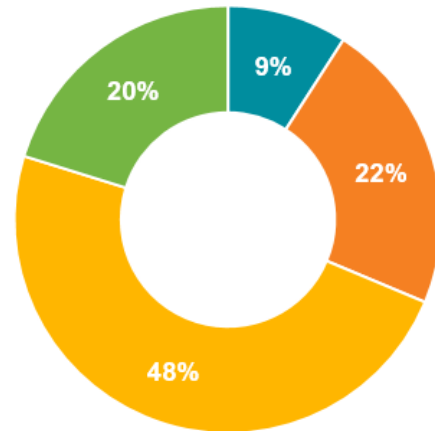
**Public Survey Feedback**

*What type of growth is ideal for the Southeast Area?*



- Mostly residential
- Somewhat more residential
- Somewhat more shops and jobs
- Mostly shops and jobs

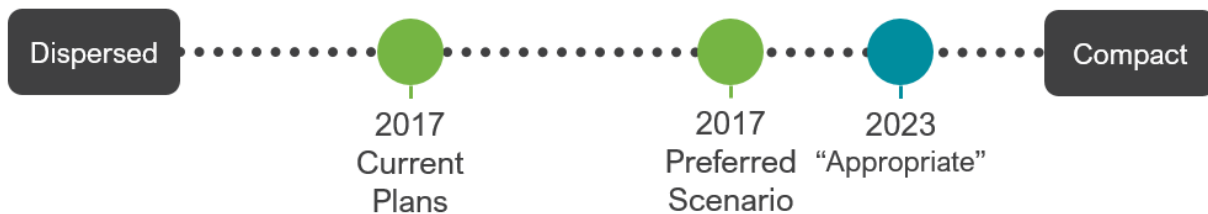
**SOT Feedback**



- Mostly residential
- Somewhat more residential
- Somewhat more shops and jobs
- Mostly shops and jobs

**Public Survey Feedback**

*In the last SEAS we considered compact vs dispersed growth. What do you think is appropriate for the SEAS Study Area now?*



- 2017 SEAS
- 2023 SEAS Update

**Wrap Up and Next Steps**

The project team wrapped up the presentation with a review of next steps including finalizing the Phase 1 Engagement Summary and finalizing the Regional Snapshot existing conditions report. The team identified upcoming meetings with the CTT.

## Attachment 1 | Attendance List

First Name	Last Name	Agency	SEAS Role
John	Buzzeli	Archer Lodge	SOT
Julie	Maybee	Archer Lodge	CTT
Erin	Joseph	Benson	CTT
Kimberly	Pickett	Benson	CTT
Bonnie	Parker	CAMPO	Project Team
Shelby	Powell	CAMPO	Project Team
Alex	Rickard	CAMPO	Project Team
Crystal	Odum	CAMPO - MCC	CTT
Mike	Bruff	CAMPO - TRM	CTT
Anna	Stokes	CAMPO - Wake Transit	CTT
Porter	Casey	Clayton	SOT
Ben	Howell	Clayton	CTT
Patrick	Pierce	Clayton	CTT
Dana	Wooten	Clayton Chamber of Commerce	SOT
Joe	Geigle	FHWA	SOT
Pauline	Ketchum	Four Oaks	CTT
Kathy	Behringer	Garner	SOT
Gaby	Lontos-Lawlor	Garner	CTT
Jeff	Triezenberg	Garner	CTT
David	Walker	GoRaleigh	CTT
Will	Allen	GoTriangle	SOT
Anita	Davis-Haywood	GoWake Access	SOT
Brian	Stoker	Grifols	SOT
Neal	Davis	JCATS	SOT
Butch	Lawter	Johnston County	SOT
Braston	Newton	Johnston County	CTT
Bonnie	White	Johnston County Association of Realtors	SOT
Chris	Johnson	Johnston County Econ Dev	SOT
James	O'Neal	Johnston County Parks, Greenways, and Open Space	SOT
Donna	Bailey-Taylor	Johnston County Visitors Bureau	SOT
Samantha	Borges	Kimley-Horn	Project Team
Allison	Fluitt	Kimley-Horn	Project Team
Andrew	Spiliotis	Knightdale	SOT
Carlos	Moya-Astudillo	NCDOT TPD	CTT
Scott	Walston	NCDOT TPD	SOT
Jennifer	Collins	NCDOT-Div 4	CTT
Sam	Lawhorn	NCDOT-Div 4	CTT
James	Salmons	NCDOT-Div 4	CTT
Bob	Deaton	NCDOT-Div 5	CTT
David	Keilson	NCDOT-Div 5	CTT
Tracy	Parrott	NCDOT-Div 5	SOT
Shaylah	Nunn Jones	NovoNordisk	SOT
Anne	Conlon	Raleigh	CTT
Chris	Golden	Raleigh	SOT
Paul	Kallam	Raleigh	SOT
Bruce	McKay	Selma	SOT
Stephen	Wensman	Smithfield	CTT
Matt	Day	TJCOG	SOT
Maureen	McGuinness	Triangle East Chamber	SOT
Kim	Johnson	Triangle Transportation Choices	SOT
Tim	Gardiner	Wake County	CTT
Akul	Nishawala	Wake County	CTT
Chris	Snow	Wake County Parks, Recreation, and Open Space	SOT

SEAS Southeast Area Study Update

SOT Meeting No. 2 Summary

August 23, 2022

First Name	Last Name	Agency	SEAS Role
Asa	Fleming	Wake County Planning Board	SOT
Danny	Kadis	Wake County Planning Board	SOT
Mike	Clark	Zebulon	SOT

*There were five unidentifiable attendees*



## Appendix B: Jurisdictional Group Meetings Summary



B

## JURISDICTIONAL GROUP MEETINGS SUMMARY

As part of the Southeast Area Study Update, a series of three meetings were held with planning staff from jurisdictions across the Southeast Area to better understand their biggest desires and concerns and how things have changed in their jurisdictions since the 2017 study. Between August 3<sup>rd</sup> and August 5<sup>th</sup>, the SEAS Project Team met with groups of planning staff from Southeast Area municipalities as well as from county planning departments (Wake and Johnston Counties) to discuss land use and transportation priorities.



Meeting 1

August 3<sup>rd</sup>

- Archer Lodge
- Clayton
- Garner
- Raleigh
- Johnston and Wake Counties



Meeting 2

August 4<sup>th</sup>

- Benson
- Four Oaks
- Kenly\*
- Pine Level
- Johnston County



Meeting 3

August 5<sup>th</sup>

- Smithfield
- Selma
- Wilson's Mills\*
- Johnston County

*\*Planners from Kenly and Wilson's Mills were unable to attend.*

### Meeting 1- August 3<sup>rd</sup>

The August 3<sup>rd</sup> meeting focused on the northwestern area of the study area, including Archer Lodge, Clayton, Garner, Southeast Raleigh, and Johnston and Wake Counties.

#### Archer Lodge

##### GROWTH PATTERNS

- Updating ordinance and plans for density

##### TRAFFIC AND ROADWAY

- Ongoing concerns about high traffic
  - Impact on the town, projected increase
  - Castleberry Road is congested
  - Buffalo Road continues to be congested even after widening

### BIKE AND PEDESTRIAN

- Importance of multimodal connections
- Recently adopted a bicycle and pedestrian plan in 2020 that showed a desire for connections to Clayton

### POLICIES AND PROGRAMS

- Retail leakage analysis to promote mixed use development as tool for influencing elected officials

### TOP PRIORITIES

- Need for interconnectivity and supportive policies to make it happen.
  - Recently finished updating their Unified Development Ordinance with density in mind
  - Currently working on updating their Comprehensive Land Use Plan.

## Clayton

### GROWTH PATTERNS

- Clayton and its surrounding areas seeing massive growth, see need for growth to be multimodal
  - Adding about 15,000 new units of residential, with industrial and commercial growth following suit.
  - Need development to mitigate sprawl
  - Comprehensive plan encourages mixed-growth and higher density, town is rewriting UDO & modernizing it to create density
  - Major highways as transit corridors with dense development around and along them
  - Opportunity for BRT, but also consideration for future phase of commuter rail

### TRAFFIC AND ROADWAY

- Significant traffic needs overall
  - Congestion along connections from Clayton and Archer Lodge into Raleigh
  - Church and Cornwallis backing up during peak periods
  - BUS-70 sees traffic comparable to I-95
  - Shotwell Rd backing up to the Walmart for about a mile
- Projects to alleviate some traffic
  - I-40 East project
  - Need to finish 540
- NC-42 serves as the main east-west corridor through Clayton.
  - NC-42 East- widening and work on Ranch Road to connect NC-42 East to US-70 bypass both noted as accomplishments since the 2017 SEAS.
  - NC-42 West is a major priority for the town
    - Improvement/widening of the road itself
    - Growth and development along the corridor, especially around Johnston Medical Center Clayton.
    - Small area plan along NC-42 West from Amelia Church to Cornwallis

### BIKE AND PEDESTRIAN

- Need bike/ped access across Business 70
- Greenways parallel to transit corridors that could branch out to create connections to transit
- Prioritize critical connections between jurisdictions

### POLICIES AND PROGRAMS

- Clayton starting work on their transportation plan in coming months.

### TOP PRIORITIES

- Further evaluating the planned Northern and Southern Connectors. Both roadway proposals are needed and planned, but neither is currently funded. Wants to study closer to see if one should be prioritized over the other.
- Identifying projects that cross jurisdictional lines to work towards together

## Garner

### GROWTH PATTERNS

- Significant pushback locally to higher density
  - Older residents oppose
  - Challenge to get mix of housing types

### TRAFFIC AND ROADWAY

- Need to maximize efficiency of the roadway network
  - Trying to improve connectivity of smaller roads to get people off major roads
- Not a lot of east-west connectivity in town
  - Kills projects when town wants development to pay for road connections
- Doesn't see benefit in widening roads, would like to shift away from single occupancy vehicles
- US 70 needs better access management
- 70/Mechanical/US 401 – needs some LU planning and access management recommendations
- Will see more growth at 540/50/401- want to maximize potential
- 40/70 Catalyst site
  - Timber Dr East extension- looked at crossing 40 on other side but not feasible
  - Didn't feel like recommendations in area were as realistic

### TOP PRIORITIES

- Access Management Standards, especially along US-70

## Raleigh

### GROWTH PATTERNS

- Amend Future Land Use Map to incentivize mixed-use, denser, compact development
- Rock Quarry Rd and Auburn-Knightdale Rd are being amended for future land use to incentivize density & walkability, city growth area
  - Raleigh's newest growth center, future hot spot
  - Future 540 at Auburn-Knightdale/Hodge Rd area is expecting development

- Rock Quarry Rd will stay the same but be node-focused (Rock Quarry at Whitefield, Battle Bridge)

### TRAFFIC AND ROADWAY

- Working with Garner to change Tryon Rd recommendation to 2 lanes instead of 4
- Street plan designations are being revisited for 6 lane cross sections to see if they can be recommended for 2 or 4 with multimodal accommodation

### TOP PRIORITIES

- BRT and regional transit connections- what policy needs to be adopted for them to succeed

## Wake County

### TRAFFIC AND ROADWAY

- Trying to improve intersections in lieu of costly widenings
- Interchange locations along 540 need connectivity between modes
- I-87/401 corridor

### POLICIES AND PROGRAMS

- Adopted PLANWake to identify community/walkable areas

### TOP PRIORITIES

- Funding

## Meeting 2- August 4<sup>th</sup>

The August 4<sup>th</sup> meeting focused on the areas of the study area in unincorporated Johnston County and jurisdictions roughly along I-95 outside of the Smithfield-Selma area, including Benson, Four Oaks, Pine Level, and Kenly. Planners from Kenly were unable to attend the meeting.

## Benson

### GROWTH PATTERNS

- Lots of residential growth and major subdivisions throughout town
- Growing significantly close to 95/40 interchange
- Subdivisions off Tarheel Road
- Farm, commercial, & residential land for sale
- Older buildings being improved and redeveloped

### TRAFFIC AND ROADWAY

- Exit 79 to Main Street has improvements being made
- The bridge on NC 50/Main St connects the east and west parts of town
- Planned traffic circle at US-301 and Main- important
- The I-95 widening is important
- Plans to add flyover bridge to connect Cub Road and Market St over I-95, will take traffic off 301 and East Main St

- NC-242 near I-40 taken out of STIP, but could be put back in
  - Widening of NC 242 between Tar Heel and I-40
  - 242 North is a major commuter corridor

### BIKE AND PEDESTRIAN

- Good base network of sidewalks
- More walking trails wanted
- Would like connectors to Selma & Wilson's Mills

### POLICIES AND PROGRAMS

- Update to Comprehensive Land Use Plan completed last year, working on UDO this year
  - UDO will require sidewalks
- CTP that's not yet adopted- new facility on farm is controversial
- Banner Elk Road- circulate access to 242
- Wants to revisit connectivity beyond CTP
  - Connect road stub out streets
  - CTP has good greenway connection

### TOP PRIORITIES

- Parking and Zoning
- Diverting freight traffic with help of STIP projects

## Four Oaks

### GROWTH PATTERNS

- Main subdivision in town has 33 houses now and will build out to 100 (Civitan & Hatcher)
- Major subdivision coming on Thunder Rd
- Just got funds for Main St maintenance
- 2 developments off Old School Road coming

### TRAFFIC AND ROADWAY

- NCDOT Roundabouts on NC-90
- Civitan Road and Hatcher Rd needs a turn lane
- Just got funds for Main St maintenance- NCDOT gave town control of street, concern about trucks speeding down Church

### BIKE AND PEDESTRIAN

- Desire for safe bike facilities
  - Black Creek has bicycle event twice a year

### TOP PRIORITIES

- Historic mixed use of buildings
- Dealing with freight traffic through BD plant



## Pine Level

### GROWTH PATTERNS

- About 600 homes coming in, but no sewer capacity or water infrastructure to serve them so subdivision on hold until hopeful sewage capacity increase in 2024-2025
- Led to a moratorium on subdivisions- need to be able to provide water/sewer/trash pickup, but can't yet
- Town anticipating further growth from new I-42 designation

### TRAFFIC AND ROADWAY

- Turn lane on Micro-Pine Level Rd

### BIKE AND PEDESTRIAN

- Desire for new, improved sidewalks (citizens asking)
- Existing sidewalks that need maintenance
- Not much desire for bike facilities
- Most people drive to large park, but park is walkable and accessible to the town

### POLICIES AND PROGRAMS

- No current connectivity policies
- New Land Use Plan adopted this summer

### TOP PRIORITIES

- Density in the center of town in historic part
- Parking in downtown (important and a challenge because of the railroad running through)

## Johnston County

### TRAFFIC AND ROADWAY

- NC-210 from Raleigh Rd to NC 50
  - Funded project, targeted for small area plan
- I-95 getting worse- increased speeding, congestion, volumes
  - Widening I-95 is an NCDOT priority
- Unincorporated areas of the county have freight issues

### BIKE AND PEDESTRIAN

- Neuse River Trail Extension should be adopted in September by McAdams/RPO
- Johnston County & RPO plan to do a county-wide greenway study
  - Goal to connect schools

### POLICIES AND PROGRAMS

- ~2 months away from adopting new land use plan
  - Identifying growth areas and densities
  - Creating an action plan, prioritizing next steps
  - Used implementation toolkit in Johnston County Land Use Plan
  - Data from original SEAS policy review was used in updating the plan

### TOP PRIORITIES

- Cornwallis Road

## Meeting 3- August 5<sup>th</sup>

The August 5<sup>th</sup> meeting focused on the area around and including Smithfield, Selma, and Wilson's Mills as well as some of the surrounding unincorporated areas of Johnston County. Planners from Wilson's Mills were unable to attend the meeting.

### Smithfield

#### GROWTH PATTERNS

- Smithfield Land Use Plan talked about dense nodes
- Supporting mixed use – the “compact” areas
- Need lateral connectivity between developments
- Focus on economic toolbox
- Expecting growth on east BUS-70, development east of I-95 wasn't part of the last study
  - Potential to expand water/sewer east of I-95
- Development along 210 to Cleveland
- Potential for new industrial demand around Smithfield

#### TRAFFIC AND ROADWAY

- Concerns about control of access along 301/39/96, US 70 Business
- Priority projects: 301, Wilsons Mills Rd, Buffalo Rd
- US 301 from Smithfield to Four Oaks is important, but only the bridge replacement is funded
- All projects identified in original SEAS still critical
- Amazon is driving up truck traffic on Swift Creek Rd, which is being addressed in upcoming updates to town Transportation Plan
  - Piece of Swift Creek Rd in front of airport is funded
- NC 210 is seeing lots of development, difficult to preserve ROW for improvements without NCDOT support
- Interchanges important to the town – I-42 / US 70 interchange, and Brogden Rd interchange (funded for 2029)
- Roundabouts on Exit 90 are in STIP
- Truck route around downtown would be ideal
- Wilsons Mills Rd from Durwood Stephenson to Market St widening

#### BIKE AND PEDESTRIAN

- NC 210 at Market St is a terrible angle for adequate bike/ped access/visibility
- Pedestrian crossing lights downtown poorly timed – need more pedestrian facilities
- Need ways to move people across the freight corridors safely
- Wants trails and sidewalk on all major corridors in Smithfield to be multimodal
- West side of town lacks Bike/Ped facilities

- Need NCDOT to plan more ROW for bike/ped improvements

### #1 ISSUES TO ADDRESS

- US-301- Improvement, visualization

## Selma

### GROWTH PATTERNS

- Buffalo Rd is a priority – town thought NCDOT had completed ROW acquisition, but it appears not
- On US 301/NC 39 area – appx 500 proposed residential structures
- The new Food Hall is driving some redevelopment on the southeast side of I-95
- New developments forthcoming on Old Beulah Rd and on old Sysco property
- Eastfield Business Park is developing with office and retail
- Solar farm near ETJ

### TRAFFIC AND ROADWAY

- US 301 between Smithfield and Selma is funded in the STIP for ROW 2025 and CON 2027
  - Potential hotspot at Ricks Rd/US 301/39/96
- Anderson Street / Rail yard coming into Selma is an issue
  - Would like to study for gateway into Selma, has been trying to get feasibility study
- Preserving ROW during new developments is a priority
- Traffic calming is needed in neighborhoods
- Problems with access control
  - Industrial sites are not allowed to turn left

### #1 ISSUES TO ADDRESS

- US-301- expedite project

## Other Topics

### Hot Spot Discussions

- NC-210 from Raleigh Rd or Lassiter Rd to NC 50 is funded but delayed; needs small area plan
- US 301 at E Main St (Benson) is on the way
- Cub Rd (Benson)
- NC-242 North – subdivisions from Tarheel Rd
- I-42 new crossovers needed – has a few service roads
- US-301 Smithfield to Selma – needs access management

### Transit

- JCATS Pilot study, potential for microtransit
- RPO pushing to extend Piedmont Amtrak service through the study area to serve Selma, Pine Level, Clayton

- BRT being studied to Clayton
- Potential future extension of commuter rail through Clayton (& beyond)

## Key Takeaways

### Roadway

- Congestion needs from 2017 SEAS still prevalent
- Desire for a safety-first strategy
- Strategic connections of road network needed
  - Connections between developments, smaller roads to provide alternative routes to major corridors
  - Connections that reduce travel time/provide more direct routes
  - Connections around jurisdictions (strategic bypasses)

### Bike/Ped

- Increased demand/desire especially for facilities providing regional connectivity
  - Intermodal strategy- greenway/sidewalk connections to transit, etc.
  - Walkability within nodes/areas
- Need for safe bike/ped accommodation both along and across major corridors
- NCDOT Complete Streets Policy may provide more funding
- Need NCDOT assistance preserving right-of-way for bike/ped infrastructure along major corridors amidst development

### Transit

- Prioritize regional connectivity to the Triangle
- Emphasis on opportunity for mode shift to relieve congestion
- Coordination between transit corridors/stations and land use

### Land Use/Development

- Fast growing, especially high residential growth
- Mixed-use development is more desired now vs 5 years ago
  - Important to consider different types and tailor to needs of each jurisdiction
  - Options for gentle density, missing middle housing- doesn't have to be all vertical density
- Need to consider infrastructure (ex. water, sewer) as growth expands to new areas
- Policies and plans need to be updated to incentivize type of development desired
  - ex. Zoning, UDOs, Land use plans. Progress being made.

### Other

- Develop standardized guides and educational materials
  - Access management retrofit standards

- Cost of sprawl educational materials
  - Traffic generation by lot guide
  - Transit supportive density guide
- Equity should be a focus of the study

## Appendix C: Pop-Up Events Summary and Materials

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C



## POP-UP EVENTS SUMMARY

As part of the process of developing the Southeast Area Study Update, a series of eight pop-up events were held at community events and locations throughout the study area to further engage with the public about their desires and concerns. Representatives were stationed at the following eight events throughout July 2022:

### Smithfield StrEATery

July 15<sup>th</sup> 6-9pm in Smithfield

### Wilson's Mills Farmers Market

July 16<sup>th</sup> 8am-2pm in Wilson's Mills

### Rockin' on Raiford Concert Series

July 21<sup>st</sup> 5-8pm in Selma

### Clayton Farmers Market

July 23<sup>rd</sup> 9am-1pm in Clayton

### Brightleaf Flea Market

July 24<sup>th</sup> 9am-2:30pm in Smithfield

### SE Regional Library (Storytime & Yoga)

July 27<sup>th</sup> 10am-12pm in Garner

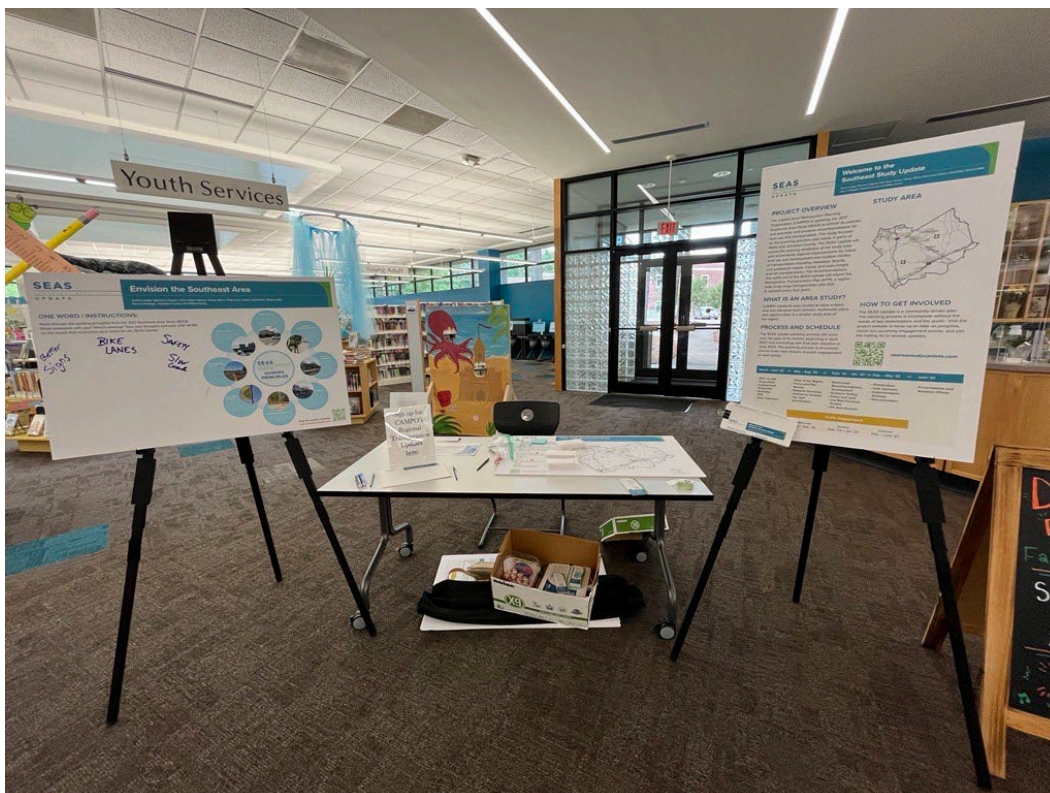
### Clayton Last Friday Event

July 29<sup>th</sup> 6-9pm in Clayton

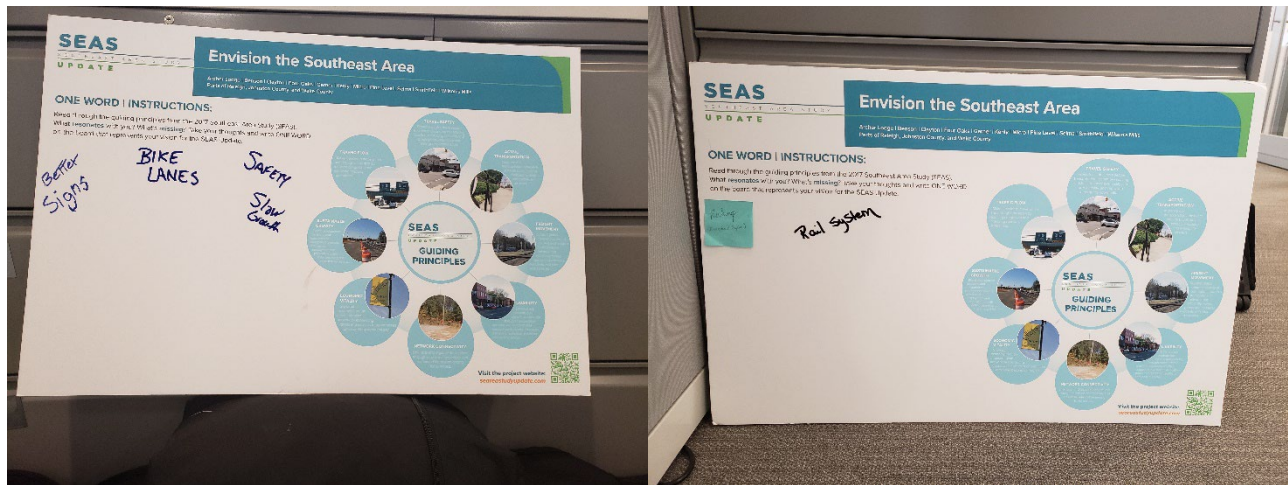
### SE Regional Library (Drum Performance & Workshop)

July 30<sup>th</sup> 1:30-4pm in Garner

Each pop-up station included three boards, one with an overview of the SEAS Update project, one with a place for comments on the vision and planning principles for the study area, and one with a map of the study area for to mark thoughts and suggestions on transportation, places, or other ideas.

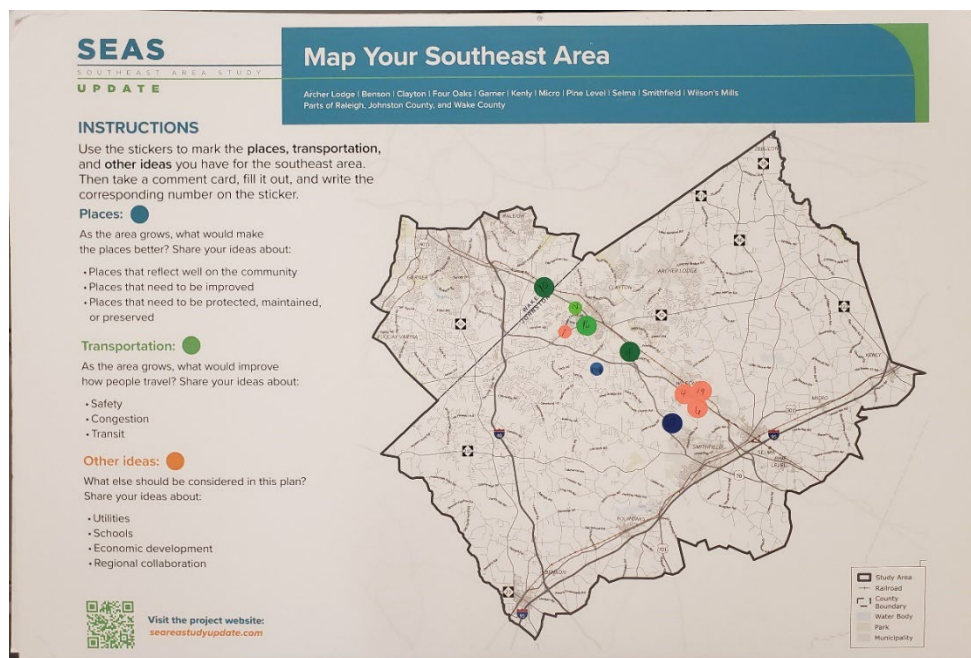


## VISION AND PLANNING ACTIVITY



As part of the vision and planning section, participants were asked to give one word about their vision for the study area, either about what resonated with them or what they felt was missing. Comments centered around safety and navigation, transportation alternatives, and growth patterns.

## MAPPING ACTIVITY



At the mapping board, participants were asked to leave comments about places, transportation, or other ideas about the study area and to mark the relevant location on the map. Most comments were about places that need intersection improvements for safety or congestion, while several others left comments on other modes such as public transit and bicycling. Other comments addressed disparities in school quality and a demand for restaurants near new employment centers.



# SEAS

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S O U T H E A S T   A R E A   S T U D Y

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U P D A T E

Archer Lodge | Benson | Clayton | Four Oaks | Garner | Kenly | Micro | Pine Level | Selma | Smithfield | Wilson's Mills  
Parts of Raleigh, Johnston County, and Wake County

The  
***Southeast  
Area Study***  
is being  
updated and  
we need to  
hear from  
**YOU!**

Share *your vision*  
for the future of  
transportation and  
land use in the area.



**SCAN HERE** for  
more information  
and upcoming  
engagement  
events.

***seareastudyupdate.com***

# SEAS

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S O U T H E A S T   A R E A   S T U D Y

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U P D A T E

Archer Lodge | Benson | Clayton | Four Oaks | Garner | Kenly | Micro | Pine Level | Selma | Smithfield | Wilson's Mills  
Partes de Raleigh, Condado de Johnston, y Condado de Wake

**El *Estudio del Área del Sureste* está siendo actualizado ¡y queremos escucharte!**

Comparte *tu visión* del futuro del transporte y el uso de tierras en el área.



**ESCANEA  
AQUÍ** para más información de los eventos de participación.

***seareastudyupdate.com***



## Welcome to the Southeast Study Update

Archer Lodge | Benson | Clayton | Four Oaks | Garner | Kenly | Micro | Pine Level | Selma | Smithfield | Wilson's Mills  
Parts of Raleigh, Johnston County, and Wake County

### PROJECT OVERVIEW

The Capital Area Metropolitan Planning Organization (CAMPO) is updating the 2017 Southeast Area Study (SEAS) to refresh its policies and practices and produce recommendations for land use and transportation. The study focuses on the evolving priorities and needs in parts of Wake and Johnston County. The SEAS Update will review the existing conditions of the study area and recommend regional improvements for future land use and development and multiple modes of transportation including roadways, bicycle, and pedestrian needs, transit, and even freight and rail considerations. The recommendations that come out of the SEAS Update will inform the Metropolitan Transportation Plan (MTP), a region-wide long-range transportation plan that is updated every four years.

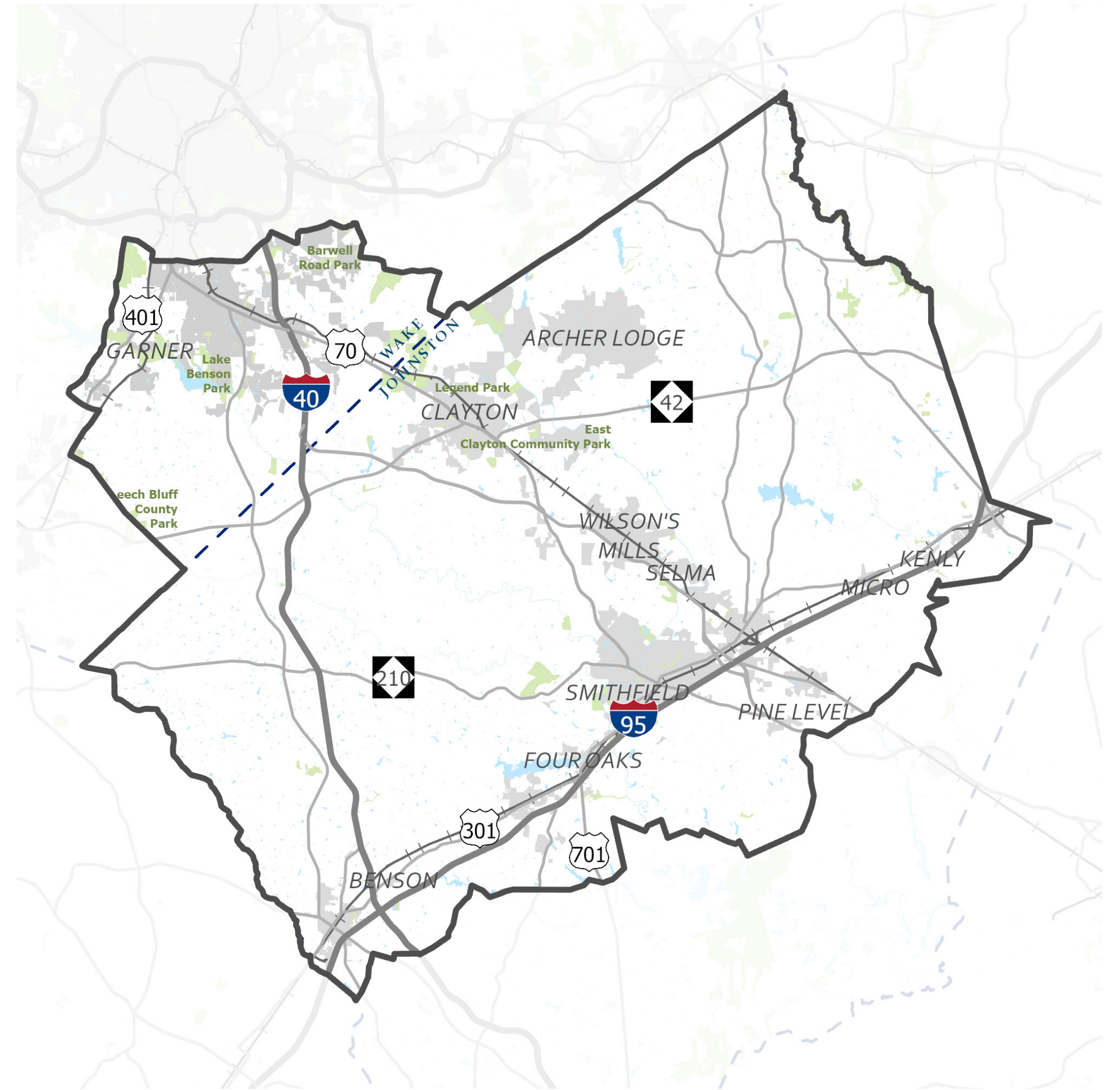
### WHAT IS AN AREA STUDY?

CAMPO conducts area studies to allow a deep dive into the local road network, multimodal plans, and opportunities in a smaller study area of the region.

### PROCESS AND SCHEDULE

The SEAS Update planning process will occur over the span of 14 months, beginning in April 2022 and concluding with final plan adoption in June 2023. The planning process is structured around three main phases of public engagement as seen below:

### STUDY AREA



### HOW TO GET INVOLVED

The SEAS Update is a community-driven plan. The planning process is incomplete without the voices of key stakeholders and the public. Visit the project website to keep up-to-date on progress, check out upcoming engagement events, and join the mailing list to receive updates.



[seareastudyupdate.com](https://seareastudyupdate.com)

March – April '22	May – Aug. '22	Sept. '22 – Jan. '23	Feb. – May '23	June '23
<ul style="list-style-type: none"> <li>Start up and Preparation</li> <li>Engagement Diagnostic</li> <li>Branding</li> <li>PEP</li> <li>Data Collection</li> </ul>	<ul style="list-style-type: none"> <li>State of the Region</li> <li>Policy and Plan Review</li> <li>Baseline Scenarios</li> <li>Deficiency Analysis</li> <li>Hot Spot Identification</li> </ul>	<ul style="list-style-type: none"> <li>Multimodal Recommendations Development</li> <li>Scenario Testing</li> <li>Policy and Land Use Best Practices Toolbox</li> <li>Hot Spot Analysis</li> </ul>	<ul style="list-style-type: none"> <li>Prioritization</li> <li>Cost Opinions</li> <li>Implementation Strategy</li> <li>Documentation</li> </ul>	<ul style="list-style-type: none"> <li>Presentations and Adoption Efforts</li> </ul>
<b>Public Engagement</b>				
	<p>Discover May – Aug. '22</p>	<p>Involve Sept. '22 – Jan. '23</p>	<p>Consult Feb. – June '23</p>	



## Bienvenido a la Actualización del Estudio del Área Sureste

Archer Lodge | Benson | Clayton | Four Oaks | Garner | Kenly | Micro | Pine Level | Selma | Smithfield | Wilson's Mills  
Partes de Raleigh, Condado de Johnston, y el Condado de Wake

### DESCRIPCIÓN DEL PROYECTO

La organización de planificación del area metropolitana (CAMPO) está actualizando el Estudio del Área Sureste (SEAS en inglés) de 2017 para actualizar las políticas y prácticas y crear recomendaciones para el uso de tierras y transporte. El estudio se enfoca en las prioridades que evolucionan y las necesidades en partes de los Condados de Wake y Johnson. La actualización del SEAS revisará las condiciones existentes en el área de estudio y recomendará mejoras regionales para el uso futuro de tierras y múltiples modos de transporte incluyendo calles, necesidades de bicicletas y peatones, tránsito, carga y ferrocarril. Las recomendaciones que vengan del SEAS informarán el Plan Metropolitano de Transporte (MTP en inglés), que es un plan de largo plazo de transporte que se actualiza cada cuatro años.

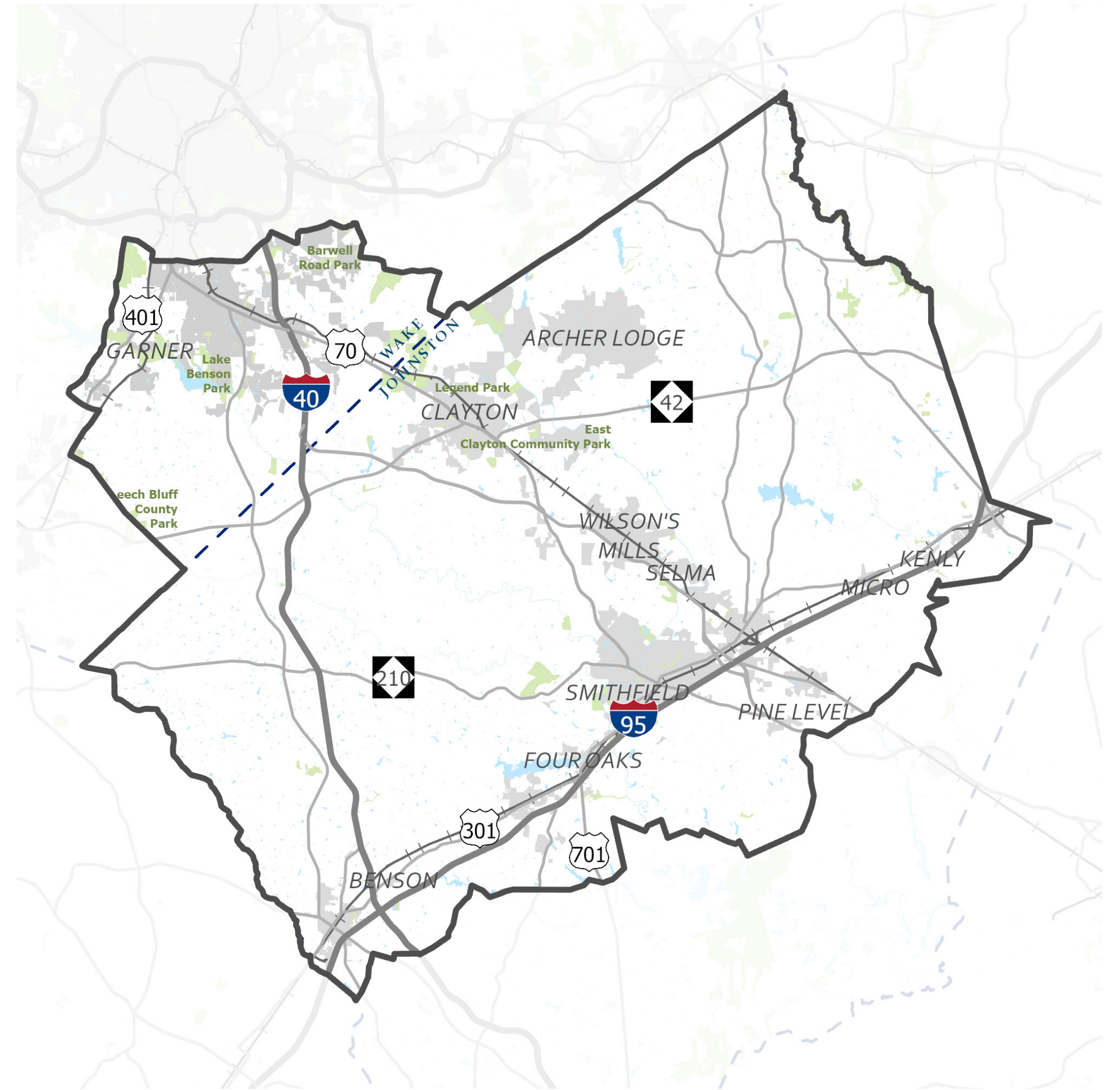
### ¿QUE ES UN ESTUDIO DE ÁREA?

CAMPO conduce estudios de áreas que permitan enfocarse en la red de calles, planes multimodos y oportunidades en un área más pequeña de la región.

### PROCESS AND SCHEDULE

Las actualizaciones del SEAS ocurrirán en los próximos 14 meses, empezando en Abril de 2022 and concluyendo en Junio de 2023. El proceso está estructurado en tres fases de involucramiento:

### ÁREA DE ESTUDIO



### CÓMO INVOLUCRARTE

La actualización del SEAS es un plan guiado por la comunidad. El proceso estaría incompleto sin las voces de los entes interesados y el público. Visita la página web para mantenerte al día con el progreso, eventos y unirte a la lista de correos para recibir notificaciones.



[seareastudyupdate.com](https://seareastudyupdate.com)

Mar – Abr '22	May – Ag '22	Sept '22 – Ene '23	Feb – May '23	Junio '23
<ul style="list-style-type: none"> <li>Comienzo y Preparación</li> <li>Diagnóstico de Participación</li> <li>Marca</li> <li>PEP</li> <li>Recolección de Datos</li> </ul>	<ul style="list-style-type: none"> <li>Estado de la Región</li> <li>Revisión de Política y Planes</li> <li>Escenarios referencia</li> <li>Análisis Deficiencias</li> <li>Identificación Zonas</li> </ul>	<ul style="list-style-type: none"> <li>Desarrollo de Recomendaciones Multimodo</li> <li>Pruebas de Escenarios</li> <li>Herramientas de Prácticas de Políticas y Uso de Tierras</li> <li>Análisis de Zonas</li> </ul>	<ul style="list-style-type: none"> <li>Priorización</li> <li>Opiniones de Costos</li> <li>Implementación de Estrategias</li> <li>Documentación</li> </ul>	<ul style="list-style-type: none"> <li>Presentación y Esfuerzos de Adopción</li> </ul>
<b>Opinión Pública</b>				
<i>Descubrir</i> Mayo – Ag '22		<i>Involucrar</i> Sept '22 – Ene '23		<i>Consultar</i> Feb – Junio '23



# Envision the Southeast Area

Archer Lodge | Benson | Clayton | Four Oaks | Garner | Kenly | Micro | Pine Level | Selma | Smithfield | Wilson's Mills  
Parts of Raleigh, Johnston County, and Wake County

## ONE WORD | INSTRUCTIONS:

Read through the guiding principles from the 2017 Southeast Area Study (SEAS).  
What **resonates** with you? What's **missing**? Take your thoughts and write ONE WORD  
on the board that represents your vision for the SEAS Update.



Visit the project website:  
[seareastudyupdate.com](http://seareastudyupdate.com)





# Imagina el Área Sureste

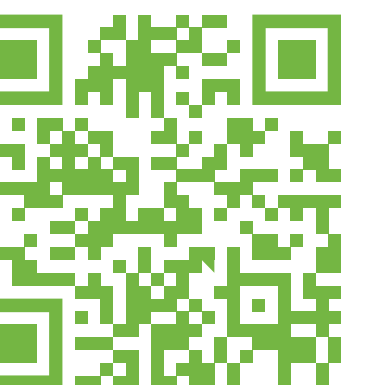
Archer Lodge | Benson | Clayton | Four Oaks | Garner | Kenly | Micro | Pine Level | Selma | Smithfield | Wilson's Mills  
Partes de Raleigh, Condado de Johnston, y Condado de Wake

## UNA PALABRA | INSTRUCCIONES:

Lee sobre los principios directores del Estudio del Área del Sureste (SEAS) de 2017. ¿Qué **resona** contigo? ¿Qué **hace falta**? Escribe UNA PALABRA en la pizarra que represente tu visión para la actualización del SEAS.



Visite la Página  
Web del Proyecto:  
[seareastudyupdate.com](http://seareastudyupdate.com)





# Map Your Southeast Area

Archer Lodge | Benson | Clayton | Four Oaks | Garner | Kenly | Micro | Pine Level | Selma | Smithfield | Wilson's Mills  
Parts of Raleigh, Johnston County, and Wake County

## INSTRUCTIONS

Use the stickers to mark the places, transportation, and other ideas you have for the southeast area. Then take a comment card, fill it out, and write the corresponding number on the sticker.

### Places: ●

As the area grows, what would make the places better? Share your ideas about:

- Places that reflect well on the community
- Places that need to be improved
- Places that need to be protected, maintained, or preserved

### Transportation: ●

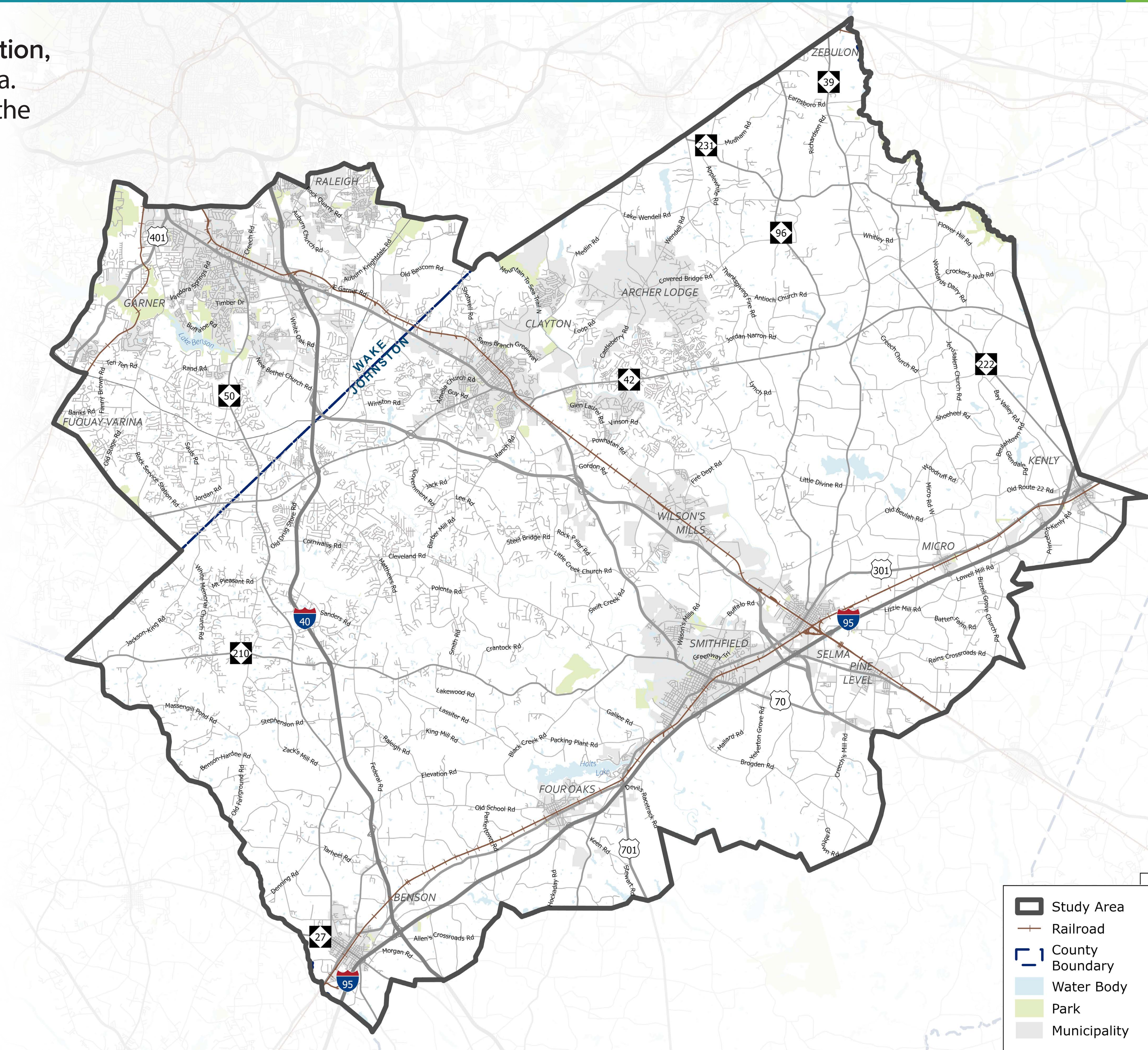
As the area grows, what would improve how people travel? Share your ideas about:

- Safety
- Congestion
- Transit

### Other ideas: ●

What else should be considered in this plan? Share your ideas about:

- Utilities
- Schools
- Economic development
- Regional collaboration



Visit the project website:  
[seareastudyupdate.com](http://seareastudyupdate.com)



# Localiza en el Área Sureste

Archer Lodge | Benson | Clayton | Four Oaks | Garner | Kenly | Micro | Pine Level | Selma | Smithfield | Wilson's Mills  
Partes de Raleigh, Condado de Johnston County, y Condado de Wake

## INSTRUCCIONES

Usa las pegatinas para identificar sitios, transporte u otras ideas que tengas para el área sureste. Luego usa una tarjeta de comentarios, rellénala y escribe el número correspondiente con la pegatina.

### Sitios:

Así como el área crece, ¿Qué haría falta para hacer los sitios mejores? Comparte tus ideas sobre:

- Sitios que reflejen bien tu comunidad
- Sitios que necesiten mejoras
- Sitios que tienen que ser protegidos, mantenidos o preservados

### Transporte:

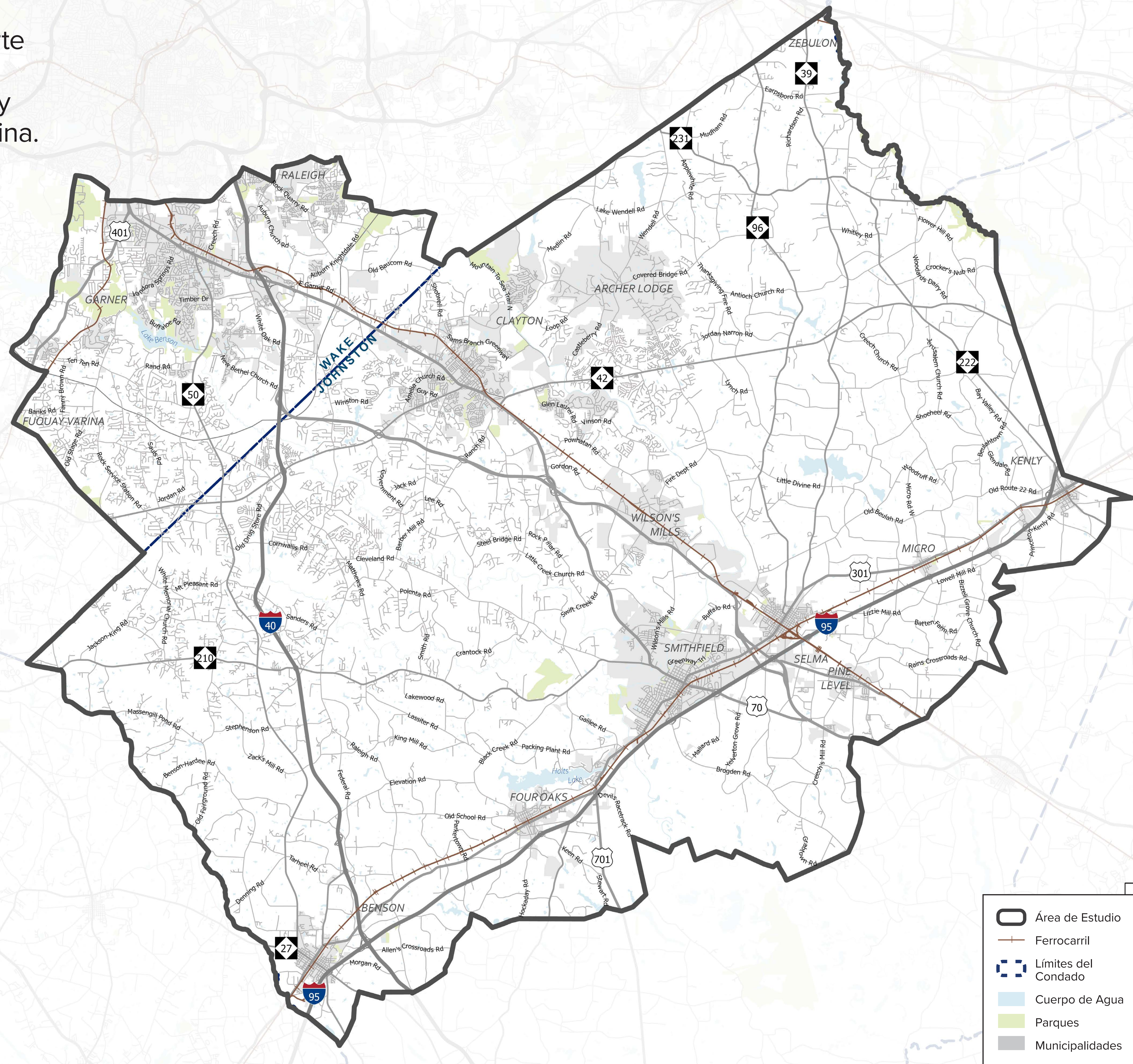
Así como el área crece, ¿Qué haría falta para mejorar cómo viaja la gente? Comparte tus ideas sobre:

- Seguridad
- Tráfico
- Tránsito

### Otras Ideas:

¿Qué otras cosas considerarías en este plan? Comparte tus ideas sobre:

- Servicios públicos
- Escuelas
- Desarrollo económico
- Colaboración regional



Visita la página web del proyecto:  
[seareastudyupdate.com](http://seareastudyupdate.com)



## Appendix D: Public Survey Summary



D

# SURVEY RESULTS SUMMARY

## Introduction

As part of the process of developing the Southeast Area Study Update, an online survey was used to gain public feedback. The survey ran from July 6<sup>th</sup>, 2022 to July 31<sup>st</sup>, 2022. **601 individuals participated**, answering questions on their vision and priorities for the study area and their thoughts on transportation and land use. A subset of these questions included a mapping component that invited respondents to map locations of concerns or needs. Several questions within the survey also invited respondents to leave open-ended comments if desired. A total of **818 comments** were received.

## Table of Contents

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Priorities.....	3
Interactive Maps.....	4
Demographics.....	10



# Visioning

THE LIST BELOW SHOWS THE EIGHT (8) GUIDING PRINCIPLES OF THE 2017 SEAS. PLEASE SELECT THREE (3) THAT ARE MOST IMPORTANT TO YOU.

## Guiding Principles

**Livability:** Enhance and promote our region's quality of life through transportation and land use decisions that support public health, education, parks and recreation, public art, and local character.

**Traffic Flow:** Make it easier to move within and through our region by reducing congestion and improving roadway operations.

**Sustainable Growth:** Blend development decisions and transportation strategies to promote and sustain employment and population growth while preserving the area's natural features.

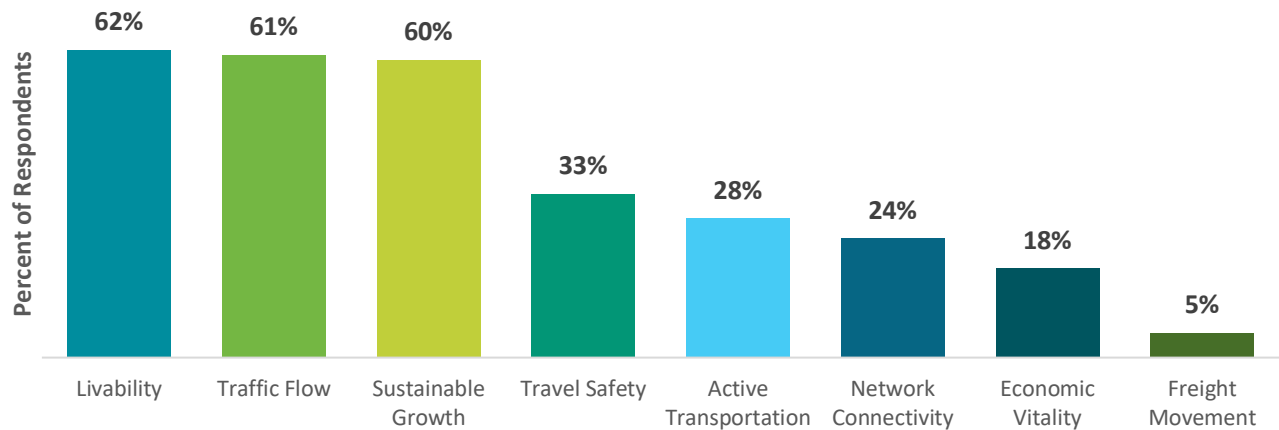
**Travel Safety:** Promote a safer, more secure transportation system by reducing crashes, enhancing reliability and predictability, and improving emergency coordination.

**Active Transportation:** Integrate our transportation network to provide travel choices, especially walking and cycling, for all users.

**Network Connectivity:** Link local and regional destinations through improved connections and enhanced integration among travel modes.

**Economic Vitality:** Grow our economy through a transportation network by connecting goods and services to opportunities within and beyond our region.

**Freight Movement:** Support global competitiveness of our region through a transportation network that efficiently moves goods and connects residents with jobs and services.



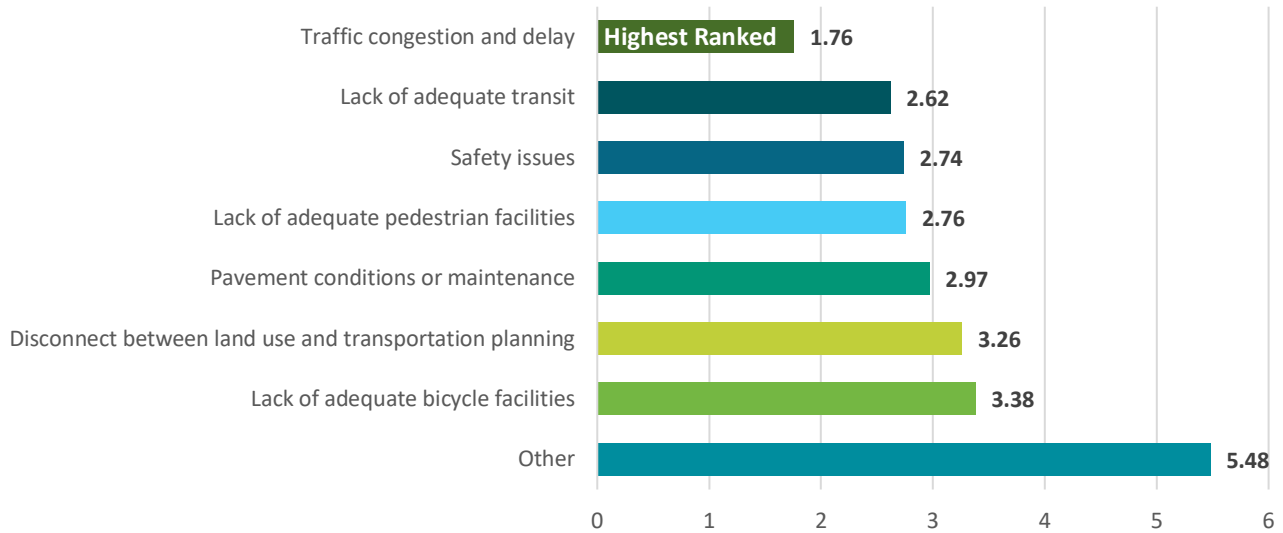
Comments included:

- concerns about uncontrolled growth and resulting congestion
- need to preserve natural resources and natural land
- desire for more greenways, trails, and spaces
- need for alternative modes to provide alternatives to driving that won't worsen congestion

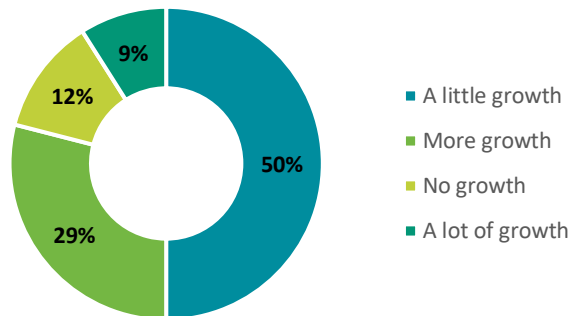
## Priorities

### WHAT ARE THE MOST CRITICAL TRANSPORTATION ISSUES TO ADDRESS IN THE STUDY AREA?

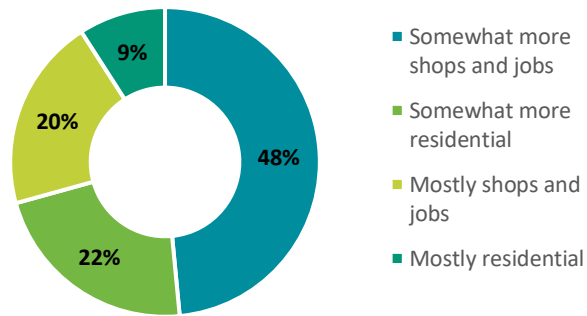
A lower number value indicates a higher ranking because the value is closest to 1, representing respondents' highest priority.



### HOW MUCH GROWTH IS IDEAL FOR THE STUDY AREA?

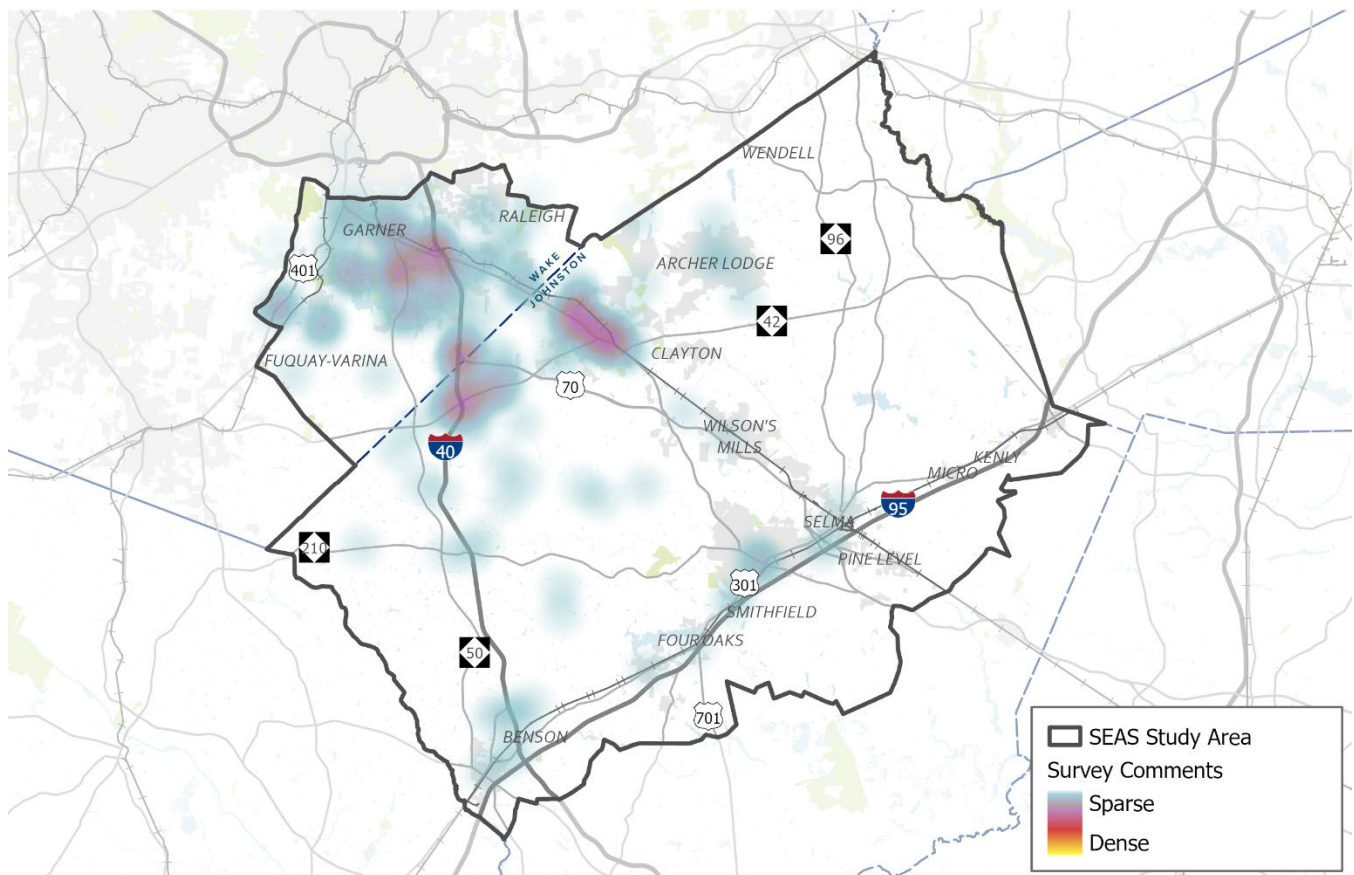


COMPARED TO TODAY, WHAT KIND OF GROWTH IS IDEAL FOR THE STUDY AREA?



## Interactive Maps

TRANSPORTATION: AS THE AREA GROWS, WHAT WOULD IMPROVE HOW PEOPLE TRAVEL? SHARE YOUR IDEAS ABOUT SAFETY, CONGESTION, TRANSIT, BICYCLE, AND PEDESTRIAN INFRASTRUCTURE.



Comments focused primarily on the following:

### Roadway

- I-40 Corridor
  - I-40 congested from Raleigh to Benson
  - I-40 at 70 Business- congestion and poor ramp design
  - I-40 at 70 bypass start of worst delays commuting into Triangle
  - Entire area surrounding I-40/NC-42 interchange needs major rework
    - Turn lanes
    - Lane reduction bottlenecks
    - Issues with Cleveland Rd/NC-42 & Cornwallis Rd/NC-42
  - I-40 interchanges with NC-242, NC-210 getting worse
    - New interchanges from I-40 to Sanders Rd, New Bethel Rd could help
- NC-42 Corridor
  - NC-42 congested all the way from NC-50 to Clayton
  - Widen and improve NC-42 for better east-west connection
  - NC-42W and NC42E need more direct connection
- US-70 Corridor
  - US-70/US-401 merge needs improvement, Tryon Rd intersection dangerous with merging traffic
  - Grade separate US-70 Business through Clayton
  - Improve signal timing on US-70 through Garner
  - Finish realignment of Jones Sausage across US-70, widen Jones Sausage
  - Widen South Market St/Business US-70 in Smithfield
- Connections
  - Extend Vandora Springs to US-401
  - Extend New Bethel to connect to White Oak or beyond
  - Connect Timber Dr Ext to Greenfield Rd
  - Bypasses for East Clayton and Archer Lodge
- Other roadway comments
  - Shotwell Rd intersections (Covered Bridge, Business US-70) need improvement
  - Routes into Archer Lodge not built for current level of traffic, unsafe
  - Widen NC-50 (reiterated by several comments)
  - Widen Ten-Ten Rd
  - White Oak Road congested
  - Old Stage Road congested
  - Improve lighting on NC-210 west of I-40
  - Widen US-301 south of Smithfield
  - Direct commuter traffic around Smithfield where possible
  - Fix turn lanes on Timber Dr and Aversboro Rd
  - Reduce parking on Market St/Business US-70 through downtown Smithfield to one side
  - Road improvements not keeping pace with pace of development

**Bike/Pedestrian**

- Add greenways
  - In Garner
  - In Benson/South Johnston area
  - Connecting Smithfield through Wilson's Mills to Clayton (planned Neuse River Trail extension)
  - Paralleling I-95 and I-40
- Add bike lanes and Sidewalks
  - Bike lanes and sidewalks along NC-50
  - Sidewalks/walkways around I-40/NC-42
  - Sidewalks and bike lanes along Cleveland Rd from NC-42 to Grill Rd or beyond- demand with schools, residential, and growing cyclist population
  - Pedestrian access to south Garner neighborhoods from White Oak Rd
  - Connect White Oak area to sidewalks on Timber Dr and White Oak Rd
  - Sidewalks and bike lane or greenway from Buffaloe Grove neighborhood to Lake Benson Park
  - Sidewalks around Clayton Middle School
  - Bike lanes and safe pedestrian access around Timber Dr and US-70
  - Bike/ped access around Battle Bridge Rd and Rock Quarry Rd
  - Crosswalk at Main St/US-70 Business in Clayton
  - Safe bike/ped access along US-301 between Smithfield and Four Oaks
  - Safe bike/ped access from I-95 into central Four Oaks
  - Provide protected bike facilities and bike intersections in dense areas

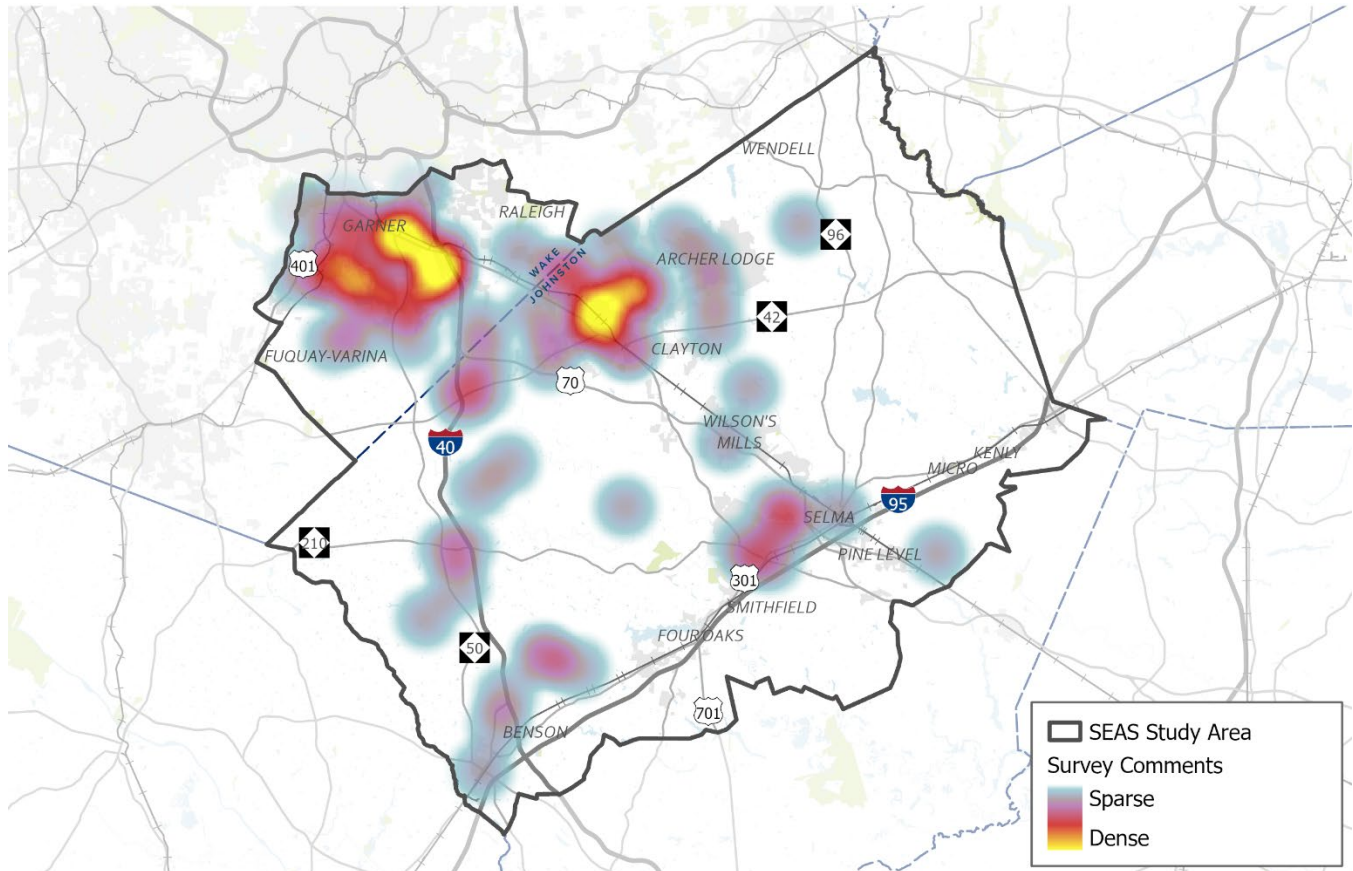
**Transit**

- Commuter Rail
  - At least from Clayton and Garner into Raleigh, but comments wanted service from Smithfield/Selma and even Benson
  - Transit-oriented development zoning around stations
  - Adequate park and rides
- Frequent Transit options to Clayton (potentially BRT extension)
- Transit needed from I-95 towns into Raleigh
- Transit to 40/42
- Transit to Archer Lodge
- Intermodal connections between local bus, BRT, commuter rail, potentially RDU airport

**Other**

- I-40 corridor, west Johnston County lacking in parks, libraries, safe walk and bike areas
- Not enough grocery stores
- Need more goods and services for amount of people
- Limited economic development in rural areas (along NC-210, etc), but strictly controlled to protect environment
- Economic development needed in Garner but not at cost of livability or environment
- Commercial development needed away from Business US-70 in Clayton area
- Retail and commercial development in Clayton so people don't have to drive to Garner or Smithfield

PLACES: AS THE AREA GROWS, WHAT WOULD MAKE THE PLACES BETTER? SHARE YOUR IDEAS ABOUT PLACES THAT REFLECT WELL ON THE COMMUNITY, PLACES THAT NEED TO BE IMPROVED, PLACES THAT NEED TO BE PROTECTED, MAINTAINED, OR PRESERVED.



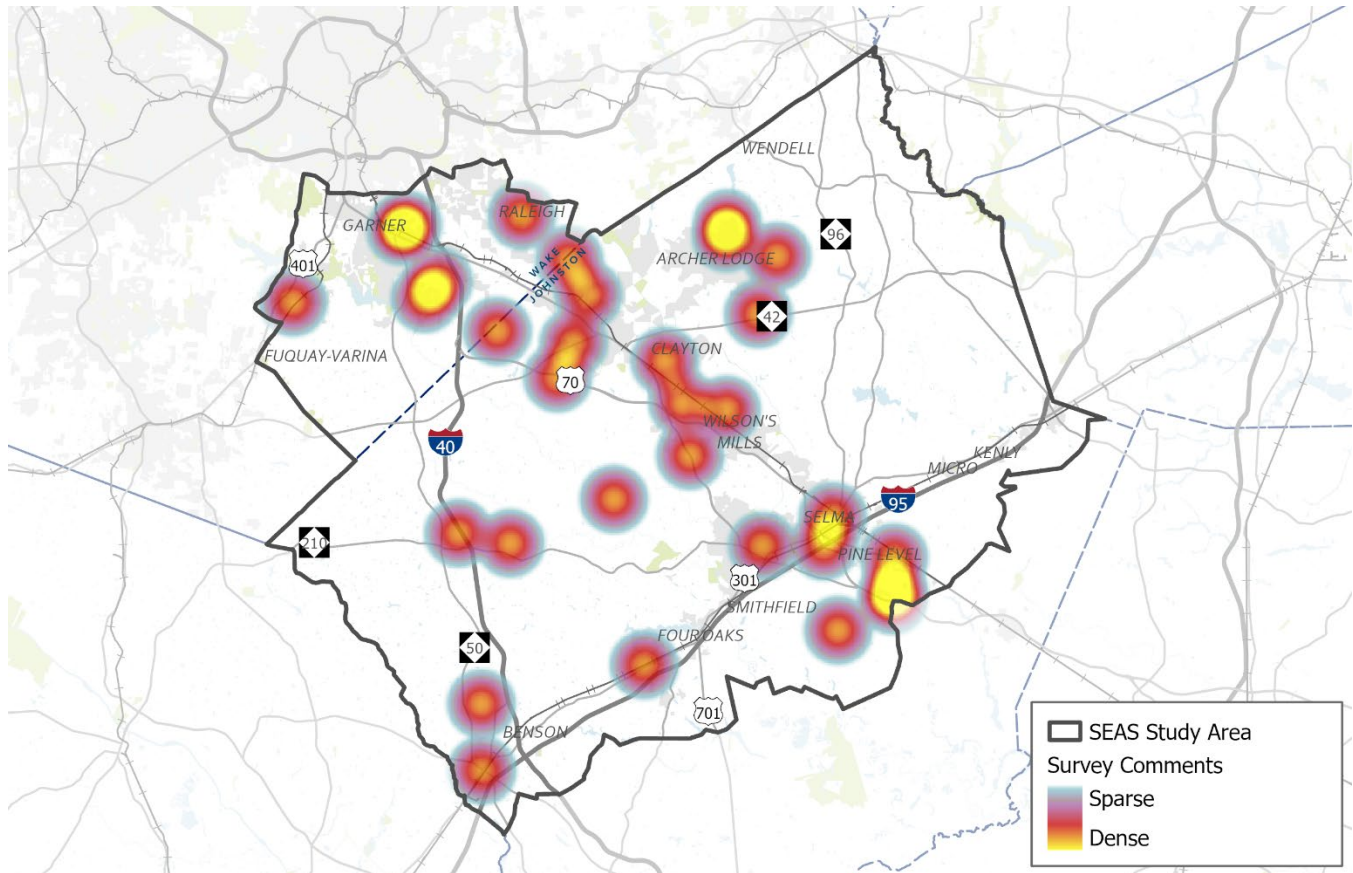
Comments mostly focused on the following themes:

- Infrastructure
  - Development outpacing school/water/sewer capacity (especially west Johnston County from Benson north)
- Missing Amenities/Access
  - Restaurants/shops in Benson
  - Recreational facilities in Cleveland, West Johnston area
  - Supermarkets near S. Garner/White Oak
  - Supermarkets in North Smithfield
  - Diversification of uses by US-401/US-70
  - Diversification uses in Forest Hills Area
  - Restaurants, boutiques along Main St in Clayton
  - Places to hang out in Clayton
  - Fitness facilities in Garner
- Preserve
  - Rural farms and open spaces, especially in E. Clayton, Benson, area south of White Oak
  - Creeks, rivers, and bodies of water

- Historic sites
- Lake Benson/White Deer Park
- Historic Yates Mill Park
- Avoid mass clearing for developments
- Transportation
  - Roadway
    - NC-42 Congestion
    - Connect NC-42W more directly to NC-42E
    - Fix interchanges at 40-42, US-401/US-70
  - Bike and Pedestrian Infrastructure
    - NC-210 near I-40
    - Aversboro Rd
    - Buffalo Rd
    - Garner Rd
    - Around White Oak
    - Safe access to schools
  - Transit
    - Commuter rail (Raleigh, Garner, Clayton, Selma/Smithfield)
    - City based microtransit or rideshare
    - Transit service along 401
    - Better transit near White Oak
- Assets
  - Downtown Clayton
  - Johnston Medical Center Clayton
  - Historic Yates Mill Park
  - Lake Benson/White Deer Park
  - Juniper Level Botanical Garden
  - Selma (noted for vibrancy)



OTHER: WHAT ELSE SHOULD BE CONSIDERED IN THIS PLAN? SHARE YOUR IDEAS ABOUT UTILITIES, SCHOOLS, ECONOMIC DEVELOPMENT, ETC.

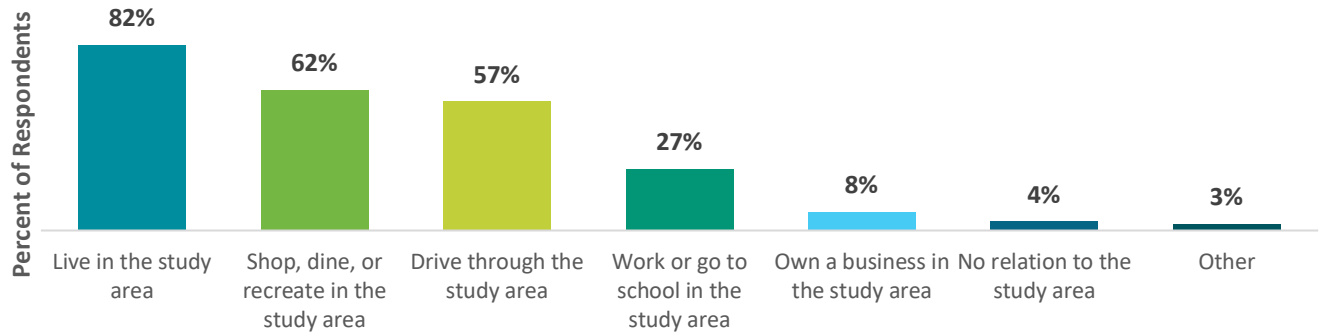


Comments largely focused on the following themes:

- Development where needed or optimal
  - More entertainment, restaurants outside of Smithfield/Clayton
  - More retail and commercial in Clayton to reduce congestion to destinations in Garner or Smithfield
  - Attracting more high paying jobs (bio, pharma, engineering) to Clayton/Powhatan
  - Potential density and mixed use
    - along Business 70 between Clayton and Smithfield
    - near Randleigh Park (Garner)
  - Transit to reduce vehicle dependency to Triangle work sites/jobs
- Planning for growth/understanding of limitations
  - Safety in/around Garner as it grows
  - Concerns about uncontrolled growth east of I-95, disrupted floodplain & agriculture
  - Need more schools around Clayton, Flower's Plantation, Benson
  - Internet access, cable, and more recreation facilities needed in west Johnston County, in/around Benson to support growth
  - Water/Sewer needed north of Clayton, south of Pine Level
  - Schools causing congestion on Buffalo Rd near Archer Lodge

# Demographics

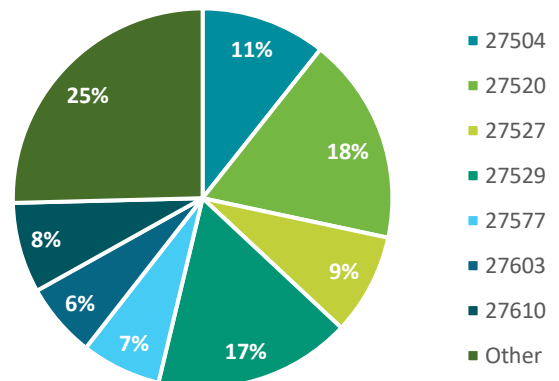
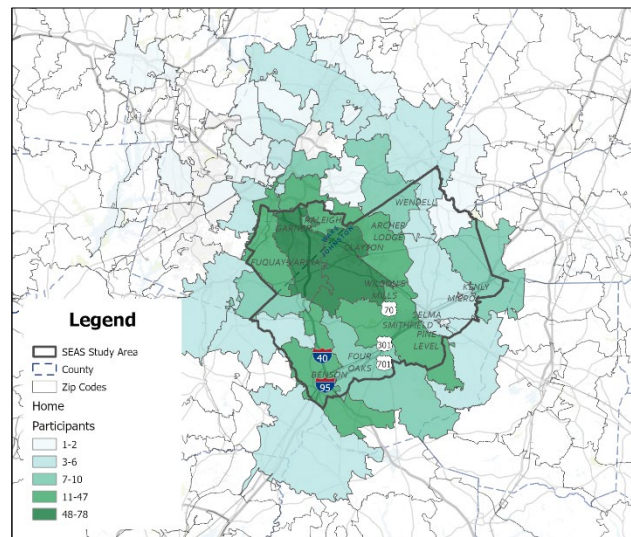
USING THE STUDY AREA MAP FOR REFERENCE, WHICH OF THE FOLLOWING DESCRIBES YOU? (CHECK ALL THAT APPLY.)



## WHAT IS YOUR HOME ZIP CODE?

Highlighted zip codes in table are within or partially within the study area.

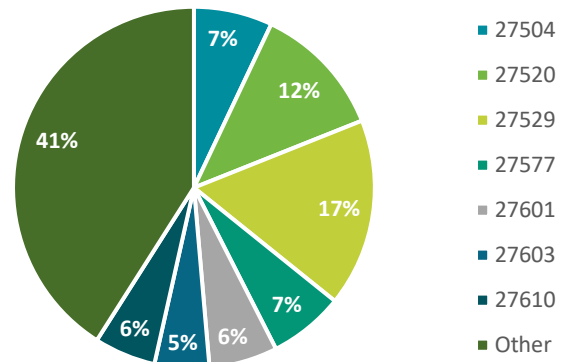
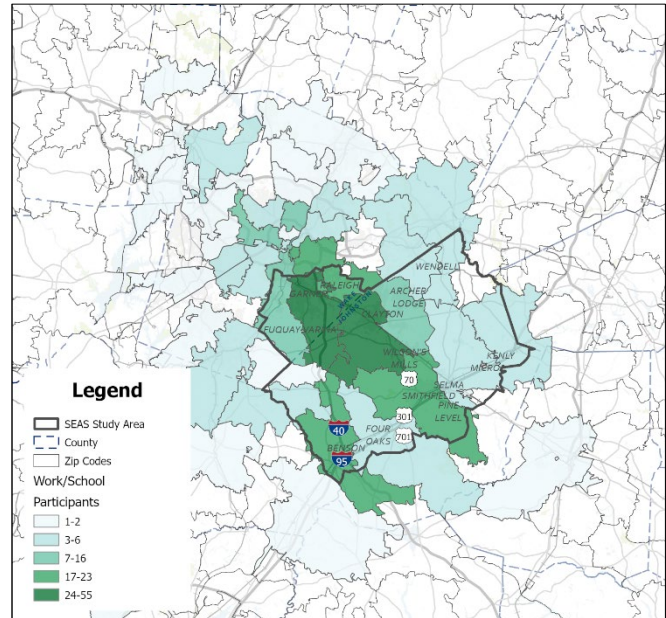
Zip Code	Count	Zip Code	Count
19006	1	27597	4
27358	1	27601	4
27501	5	27603	28
27504	47	27604	9
27511	1	27605	2
27519	1	27606	6
27520	78	27607	2
27524	10	27608	1
27526	4	27609	3
27527	38	27610	34
27529	74	27612	2
27542	7	27613	1
27545	1	27614	1
27557	2	27615	5
27568	1	27619	1
27569	3	27701	1
27571	1	27705	1
27576	4	28334	3
27577	30	28345	1
27587	4	28527	1
27591	8	28614	1
27592	7	28756	1
27596	1		



WHAT IS YOUR WORK/SCHOOL ZIP CODE?

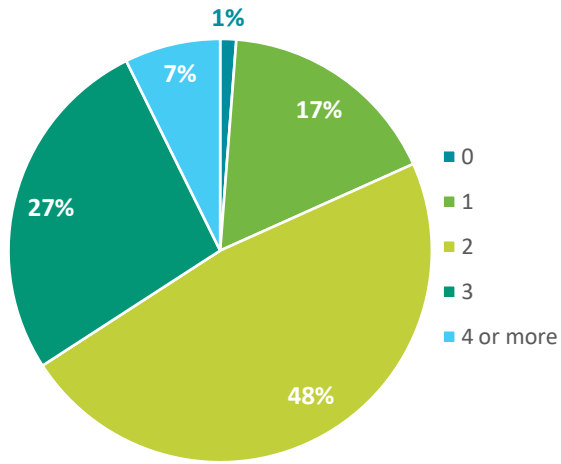
Highlighted zip codes in table are within or partially within the study area.

Zip Code	Count	Zip Code	Count
27407	1	27601	20
27501	4	27602	2
27502	1	27603	16
27504	23	27604	5
27506	2	27605	3
27511	3	27606	4
27513	1	27607	10
27518	5	27608	1
27520	39	27609	10
27524	3	27610	18
27526	3	27612	4
27527	14	27614	2
27529	55	27615	2
27530	1	27616	3
27531	1	27617	1
27540	2	27695	3
27542	6	27701	2
27546	1	27703	4
27560	2	27707	2
27568	1	27709	1
27576	6	27712	1
27577	22	27713	2
27587	1	28310	1
27591	5	28334	1
27592	1	28594	1
27597	3	28607	2

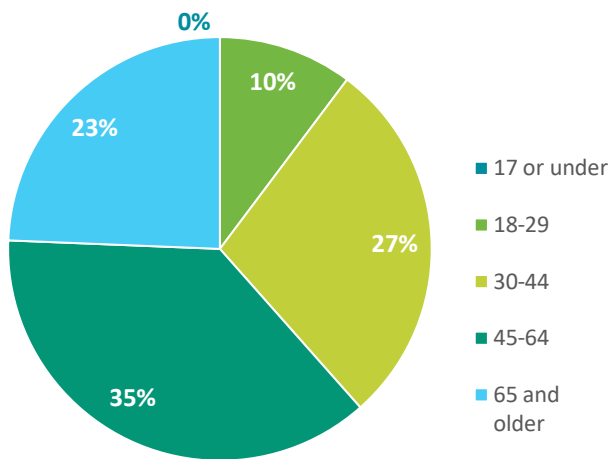


27601 is not within the study area. However, it contains much of downtown Raleigh, so the respondents who work in 27601 may commute to work in Raleigh from homes within the study area.

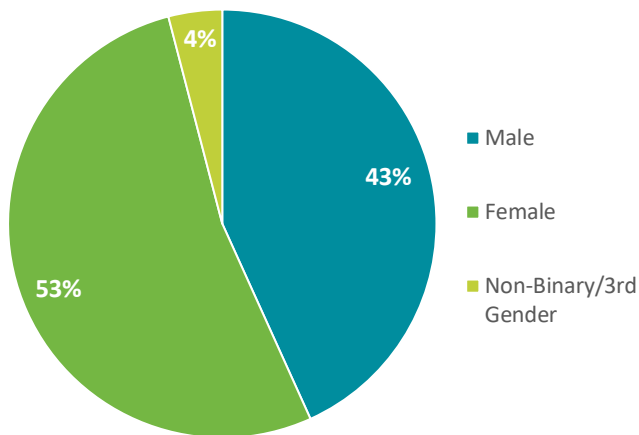
HOW MANY MOTOR VEHICLES ARE AVAILABLE FOR USE IN YOUR HOUSEHOLD?



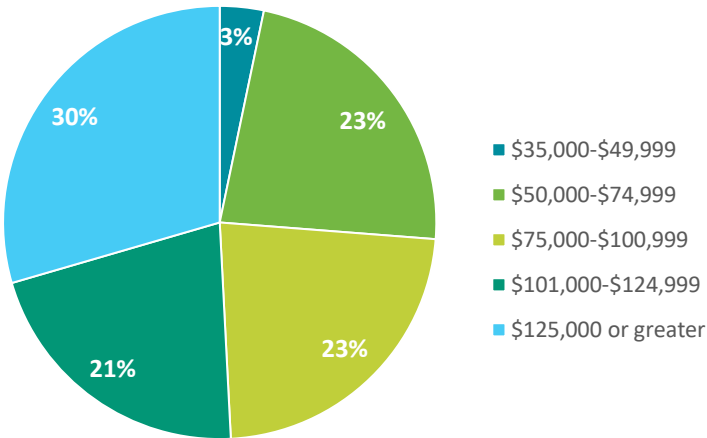
WHAT IS YOUR AGE GROUP?



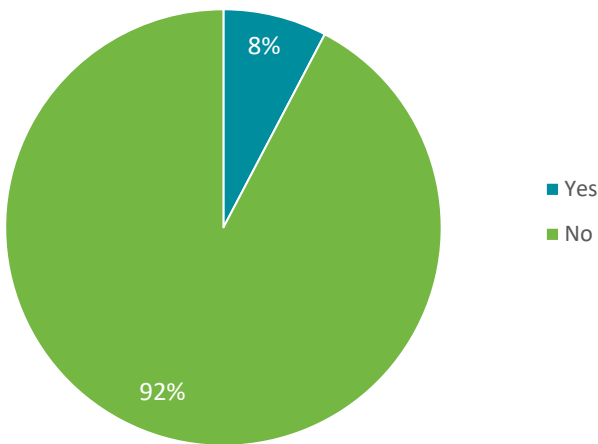
WHAT IS YOUR GENDER?



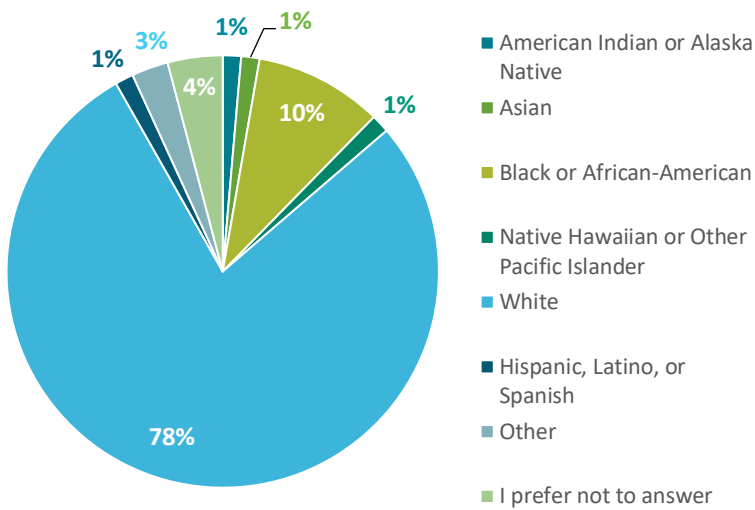
WHAT IS YOUR HOUSEHOLD INCOME RANGE?



DO YOU HAVE A DISABILITY?



WHAT IS YOUR RACE/ETHNICITY?



# PHASE 2 OUTREACH SUMMARY: INVOLVE

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## Executive Summary

### Purpose of Engagement

Phase 2 of the engagement process involved educating the public about the results of previous public input on visions, goals, and challenges from Phase 1, while discovering public sentiments and about initial transportation recommendations. This phase focused on seeking input on potential preferred/recommended modal alternatives. Phase 2 engagement lasted from October 2022 through July 2023.

#### ENGAGEMENT TIMELINE



### Engaging with Committees

Phase 2 Engagement included a series of meetings with the Core Technical Team (CTT) and Stakeholder Oversight Team (SOT) where stakeholder and local jurisdiction input informed the scenario planning process and helped guide initial recommendations.

Work with the SOT continued with a meeting in October 2022. As part of the scenario planning process, committee members were asked to rank the guiding principles on a spectrum by whether, in order to achieve a given principle, land use should be more compact or more dispersed and whether the transportation should lean towards more mode choices or be more car oriented. Livability, Sustainable Growth, Travel Safety, Active Transportation, Network Connectivity, and Economic Vitality all had most responses favoring more mode choices and more compact land use, while Traffic Flow and Freight had more varied results with even splits on land use and only a slight lean towards mode choice.

Committee members were also asked to rank potential indicators for measuring each guiding principle by importance.

The project team also held meetings with planners from the different jurisdictions within the planning area in January 2023 to get more specific feedback on each municipality's needs. Planners discussed priority growth corridors and centers, areas with unique needs or considerations, progress on priority land use policy strategies since the 2017 SEAS, and the direction of the hot spots going forward.

After the jurisdiction group meetings, additional meetings with the CTT, Capital Area Metropolitan Planning Organization's (CAMPO) Technical Coordinating Committee (TCC) and Technical Advisory Committee (TAC), and the Upper Coastal Plain Rural Planning Organization's (UCPRPO) TCC and TAC were held to discuss the comments received from the various jurisdictions, specific land use scenarios,



early draft modal recommendations, and other previous engagement to review key takeaways. A final SOT meeting was held in combination with a public symposium.

## Engaging with the Public

The project team also engaged in-person with the public through a public symposium and 6 pop-up events held throughout the study area in June and July 2023, as well as online through a survey open for responses from June 16-July 16 2023.

The public symposium was held at Garner Town Hall on June 22<sup>nd</sup>, and included an overview of the project, the outcomes of the scenario planning process and various tradeoffs of compact development, recommendation boards for each mode, and a survey where participants were asked to comment on draft recommendations and prioritization criteria.

Acting as an abbreviated version of the symposium, pop-ups were located at events like downtown festivals and farmers' markets or at locations like the Garner regional library on days of scheduled activities in hopes of meeting people where they were. Each pop-up included an overview board, a one-page worksheet, and the survey. All pop-up materials were provided in English and Spanish.

The online survey was crafted to mirror the information and feedback receive at the public symposium and pop-up events by including background information and questions about project priorities as well as a series of interactive maps that allowed people to comment on the different recommendations. Public comments were received from people across the study area, with the vast majority living in the study area or having other meaningful connections to the area.

## Success and Next Steps

The following table measures the success of this phase of engagement against the performance measures established in the Public Engagement Plan (PEP). All the measures were met and the method through which they were achieved is detailed in the table as well.

**MEASURES OF SUCCESS**

Measure	Indicator	Met	Achieved With
<b>Number</b>	Active participation by SOT/CTT members through events they attend/host, social media posts/emails they send	✓	Pop-up events; CTT/SOT meetings; outreach toolbox
	Project email updates sent at the beginning and end of each public engagement phase	✓	Email updates
	Geographic coverage of study area in event locations and social media targeting	✓	Social media blasts; pop-up events; zip codes of survey; Justice 40 block groups
	Materials translated to or available in Spanish	✓	Website, video, online survey, pop- up event and symposium materials
<b>Inclusivity</b>	Ensuring that engagement materials and activities are broadly available in four ways:		
	Across a variety of mediums (i.e., online, in-person, and passively)	✓	Website; video; pubic symposium; pop-up events; online survey
	Dispersed geographically (i.e., in both the urban and rural areas of the study area)	✓	Pop-up events; zip codes of survey
	Cognizant of user types (i.e., commuters, visitors, residents, recreational users, renters, property owners, etc.)	✓	Pop-up events; online survey; social media
	Accessible to a diverse audience regardless of race, ethnicity, sex, education level, disability, or language	✓	Pop-up events; website; social media
<b>Quality</b>	The intentional timing of engagement with project milestones to ensure feedback aligns with decision points	✓	Draft Multimodal Project Recommendations; Prioritization
	The evaluation of feedback for its value added to the planning process	✓	Draft Multimodal Project Recommendations; Prioritization

**NEXT STEPS**

The project team will take the feedback received from committee members and the public to finalize the modal recommendations and draft the final summary report. The SEAS Update will be released for public commented during the final touchpoint with the community.

# Engagement Approach

## Purpose and Goals

Phase 2 of the engagement process involved educating the public about the results of previous public input on visions, goals, and challenges from Phase 1, while discovering public sentiments about initial transportation recommendations. This phase focused on seeking input on potential preferred/recommended alternatives. Phase 2 engagement lasted from October 2022 through July 2023.

## Promotion Methods

The following platforms were used to advertise and promote awareness of the SEAS Update.

### EMAIL AND SMS MESSAGE BLAST

An email blast updating recipients on the process and informing them about the public symposium and online survey opening in June was sent out. Identical information was also sent out via text message to mobile sign ups.

### SOCIAL MEDIA POSTS

Between June and July social posts about Phase 2 Engagement were made across Twitter, Facebook, and Instagram, including posts about pop-up events across the study area.

## Outreach Materials

The following materials were developed, and platforms used to collect feedback during Phase 2 Engagement. These are included in Appendix C.

### OUTREACH TOOLBOX

Committee members were provided with an “Outreach Toolbox” located on the project website that included email and social media post templates, a digital advertisement, bookmarks, presentation slides, a one-pager informational sheet, a paper survey, overview boards, and the Phase 2 Engagement video to further engage and spread awareness of the SEAS Update in their communities.

### EMAIL TEMPLATE

The email template allowed CTT and SOT members to conveniently tailor a pre-written email for their communities and constituents.

### SOCIAL MEDIA BLASTS

Social media advertisements were created for Facebook, NextDoor, and Twitter to allow CTT and SOT members to post on their organizational and personal socials about the SEAs Phase 2 Engagement events and public survey,

### BOOKMARKS

Bookmarks advertising the project and providing a QR code to the project website were given to CTT members to display at town halls or bring to council and board meetings. These were also handed out at the public symposium and the pop-up events.

### ONE-PAGER

An informational one-pager that provided a project update and established the purpose of Phase 2 Engagement was shared with CTT and SOT members and shared via the Outreach Toolbox, email, the public symposium, and the pop-up events.

### POP-UP EVENT BOARDS

Each pop-up event included two overview boards in English and Spanish with project background and information.

### NARRATED PRESENTATION

The project team recorded a brief narrated presentation that gave an update to the study, including the outcomes of the scenario planning process and the draft modal recommendations.

### PRESENTATION SLIDES

An in-depth presentation was made available to the CTT/SOT members via the Outreach Toolbox for the purposes of allowing them to give local board and council updates about the SEAS Update.

## Events and Activities

The following section describes the events and activities that occurred during Phase 2 Engagement. The full summaries of each event are included in the appendices.

### CTT AND SOT MEETING (10/23 [2022])

The meeting on October 23rd acted as a visioning session for the SOT to:

- understand and shape how the scenario planning process would aim to reflect the plan's guiding principles
- decide what criteria could be used to measure the performance of the scenario planning process

As part of the scenario planning process, committee members were asked to rank the guiding principles on a spectrum by whether, in order to achieve a given principle, land use should be more compact or more dispersed and whether the transportations should lean towards more mode choices or be more car oriented. Committee members were also asked to rank potential indicators for measuring each guiding principle by importance.

### JURISDICTIONAL GROUP MEETINGS (1/11)

The project team held meetings with planners from the different jurisdictions within the study area in January 2023 to get more specific feedback on each municipality's needs. Two meetings were held, each focusing on a specific group of jurisdictions.

- Benson, Four Oaks, Kenly, Micro, Pine Level, Smithfield, Selma, Wilson's Mills, and Johnston County
- Archer Lodge, Clayton, Garner, Raleigh, Wake and Johnston Counties

Planners discussed the result of the SOT guiding principles activity and noted priority growth corridors and centers, areas with unique needs or considerations, progress on priority land use policy strategies since the 2017 SEAS, and the direction of the hot spots going forward.

### CTT MEETING (3/30)

The March 30<sup>th</sup> CTT meeting was held virtually over Zoom and focused on discussing the scenario planning process, performance measures, and presenting the initial three future land use scenarios (*Existing Plans, Corridors, and Centers*).

### CAMPO TCC AND TAC MEETINGS (4/6; 4/19)

These meetings were with CAMPO leadership to inform and update them on the study's progress.

### UCPRPO TCC AND TAC MEETINGS (5/2; 5/10)

These meetings covered largely the same topics as the April TCC and TAC meetings to inform and update UCPRPO leadership.

### CTT MEETING (5/24)

The May 24<sup>th</sup> CTT meeting was in person at Clayton Town Hall and focused on the results of the scenario planning process and an intro to the modal recommendations. The project team recapped the scenario planning process and presented the *Preferred* land use scenario and its scored results. There was also a brief discussion of the Best Practices Toolbox and what tools should be prioritized before discussing in more detail the first draft of the modal recommendations.

### PUBLIC SURVEY (OPEN JUNE 16-JULY 16, 2023)

A public survey using the Public Input platform was used to target online feedback regarding prioritization criteria and individual modal project recommendations. The survey was open for one month and included general questions about the draft recommendations and prioritization criteria, as well as a series of interactive maps for people to leave comments on individual projects. The survey also asked a series of demographic questions.

### PUBLIC SYMPOSIUM (6/22)

A public symposium was held at Garner Town Hall on June 22<sup>nd</sup> to introduce the public to the draft recommendations and the prioritization process. The first half of the meeting consisted of an SOT Orientation where members were "walked through" the display boards via a formal presentation given by the project team. Boards included information about the scenario planning process and results, the land use best practices toolbox, the multimodal recommendations, and an overview of the CAMPO project prioritization process. Following this, the event became open for the public to view the boards and speak with the project team.

### POP-UP EVENTS (THROUGHOUT JUNE/JULY 2023)

Six pop-up events were held across the study area during June and July 2023 to engage with people in person across the study area. Pop-ups were located at events like downtown festivals and farmers' markets or at locations like the Garner regional library on days of scheduled activities in hopes of meeting people where they were. Each pop-up included an overview board, the project one-pager, bookmarks, and paper surveys. These materials were intended to summarize the feedback received from Phase 1 Engagement, introduce the purpose of Phase 2 Engagement, and allow for meaningful feedback from the public.

# Engagement Results

## Demographics and Representation

### CTT/SOT

The Core Technical Team includes individuals from planning departments across the study area jurisdictions as well as people with CAMPO, UCPRPO, and NCDOT. Entities represented include:

- Archer Lodge
- Benson
- CAMPO (MCC, TRM, Wake Transit)
- Clayton
- Four Oaks
- Garner
- GoRaleigh
- GoTriangle
- GoWake Access Transportation Advisory Board
- Johnston County
- NCDOT TPD
- NCDOT-Div 4
- NCDOT-Div 5
- Raleigh
- Selma
- Smithfield
- UCPRPO
- Wake County
- Wilson's Mills

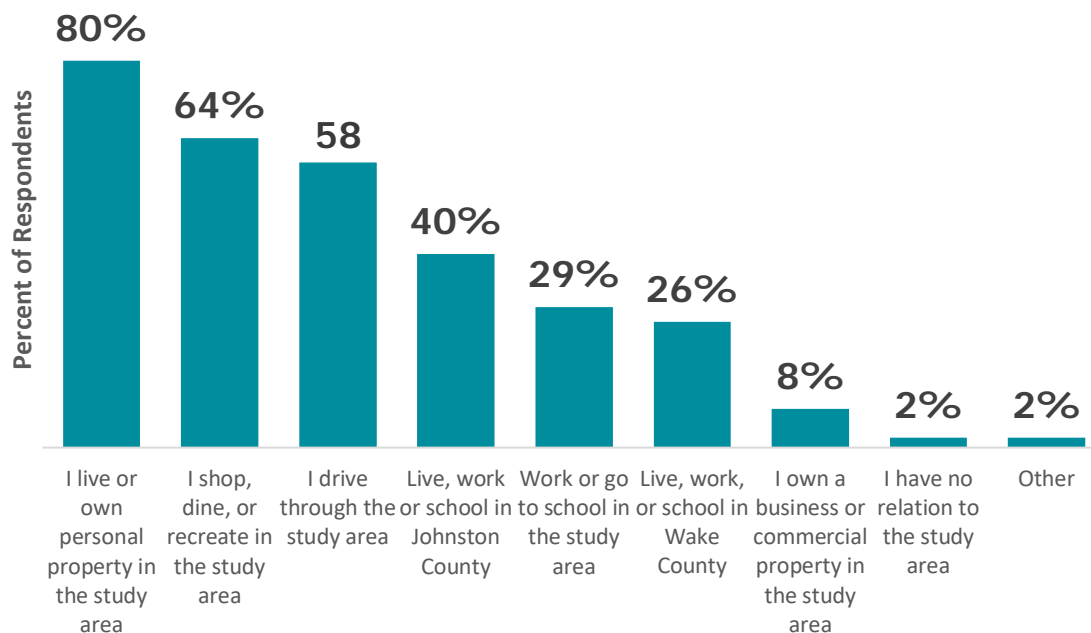
The Stakeholder Oversight Team includes individuals from town and county leadership from jurisdictions in and surrounding the study area, as well as representatives from different agencies and organizations including school systems, the Triangle J COG, area chambers of commerce, visitors' bureaus, transit systems (and rider representatives), and advocacy groups for things like parks, land conservation, and transportation options. Major employers Grifols and Novo Nordisk also had representatives on the committee. Locations and agencies represented include:

- Benson
- Clayton
- Clayton Chamber of Commerce
- Community Partner Network of Raleigh
- Garner
- Garner- Transit/Transportation Citizen Representative
- GoRaleigh
- GoTriangle
- Grifols
- JCATS
- Johnston County
- Johnston County Association of Realtors
- Johnston County Parks, Greenways, and Open Space
- Johnston County Visitors Bureau
- Johnston-Lee-Harnett Community Action
- Knightdale
- NCDOT Rail
- NCDOT TPD
- NCDOT-Div 5
- Novo Nordisk
- Raleigh
- RTA
- Selma
- TJCOG
- Triangle East Chamber
- Triangle Land Conservancy
- Triangle Transportation Choices
- Wake County Schools
- Wake County Planning Board
- Wake up Wake County
- Zebulon

## PUBLIC SURVEY

A digital public survey was open for most of June and July allowing the public to provide feedback on the draft transportation recommendations and prioritization criteria.

To ensure that the survey responses reflected the views of people who live, shop, work, or are otherwise invested in the study area, respondents were asked to describe their relation to the study area by choosing the options that described them from a list. 80% responded that they lived in the study area, and a majority also shopped, dined, or recreated within the study area and/or drove through the study area. Of respondents, about 40% lived, worked, or went to school in Johnston County versus 26% in Wake County.

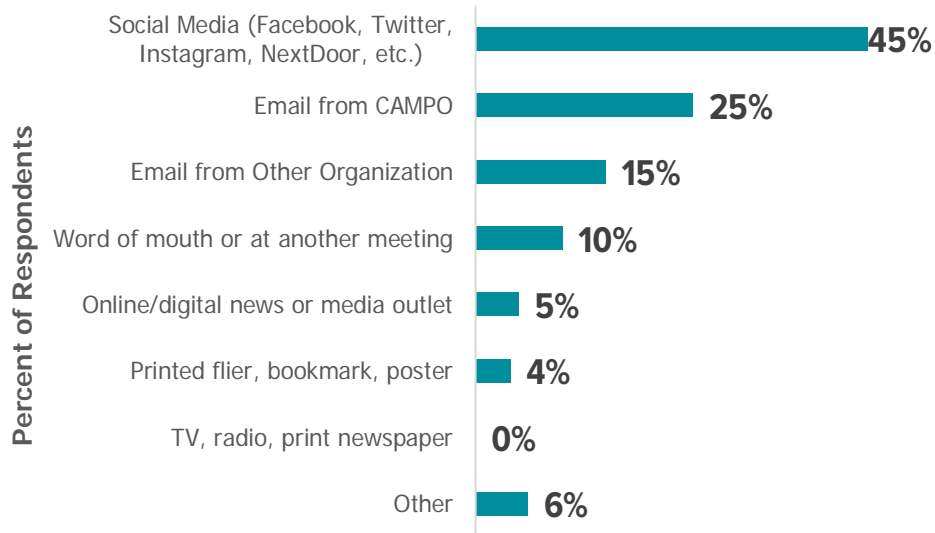


Out of participants who took the survey and answered the demographic questions:

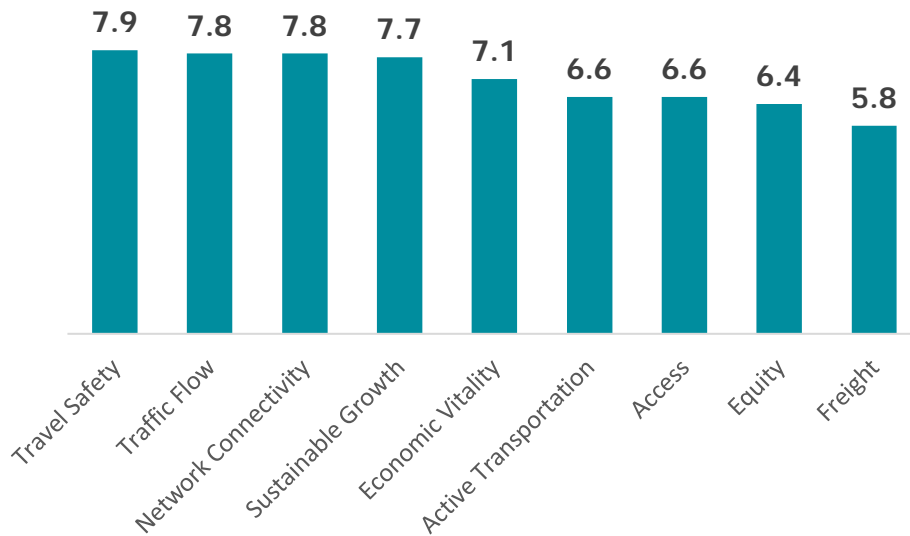
- **94%** of respondents were **fluent or primary English speakers**
- **73%** were **25-64 years old**, while **21%** were **65 years or older** and only **3%** were **under 24** (2% 18-24 years old, 1% 17 years old or younger)
- **11%** of respondents were from households with **incomes under \$53,000 a year**
- **10%** were **minority races or multiple races**; **3%** were of **Hispanic, Latino, or Spanish origin**.
- **47%** of respondents identified as a **woman**, **36%** identified as a **man**. Two respondents identified as non-binary or other gender.
- **8%** were from **households of five people or more**.
- **3%** were or were considered to be **disabled**

Almost half of respondents heard about the SEAS Update survey from social media, while others heard about it from emails from CAMPO or other organizations.





When asked to rank importance of a series of criteria for selecting roadway projects to recommend and prioritize on a scale of 1 (least important) to 10 (most important), participants emphasized travel safety, traffic flow, network connectivity, and sustainable growth as the most important. Freight was ranked as the least important.



## Themes and Key Takeaways

The following section identifies themes that arose from the feedback received from Phase 2 Engagement. Themes are organized by transportation and land use topics and key takeaways are identified for each theme.

### SCENARIO PLANNING/LAND USE

*Note that the following represents Jurisdiction, CTT, and SOT feedback*

#### **Compact development that favors more mode choices best accomplishes the guiding principles**

- In SOT activity, Livability, Sustainable Growth, Travel Safety, Active Transportation, Network Connectivity, and Economic Vitality all had most responses favoring more mode choices and more compact land use
- Only Traffic Flow and Freight had more varied results, split on land use and with a slight lean towards mode choices

#### **Focus growth in centers to minimize sprawl and conserve rural areas**

- Based on committee feedback, the preferred scenario was created as a variation of the centers scenario that focused growth in agreed upon town clusters and new centers while going further to minimize encroachment on rural areas and rural corridors

#### **Focus growth in centers and corridors identified by jurisdictions**

- Some jurisdictions were working from centers and corridors already identified in local plans
  - Ex. Smithfield (Town Plan), Wake County (PlanWake)
- Some jurisdictions noted existing growth areas to shape
  - Benson noted growth along NC 242, NC 27, and US 301
  - Johnston County noted increases in development along NC 96/NC 231 and up near Wendell
- Other jurisdictions noted areas they wanted to shape going forward
  - Wilson's Mills is working to create new mixed-use center near downtown as the shape of the town changes from US 70 grade separation
  - Raleigh working to shape the
- Corridors suggested were often not the biggest highways, but centers tended to be at key nodes
  - Major crossroads (ex. US 70/NC 42, US 70 Bus/I-95, NC 50/NC 540, White Oak area)
  - Future transit nodes (ex. Garner Station area around BRT stop)

## ROADWAY AND INTERSECTION RECOMMENDATIONS

*Note that the following represents public feedback*

### **Widenings and new connections sometimes concern the public due to the potential for decreased safety and environmental impacts**

- Some new location connections faced opposition due to the risk of adding more fast moving through traffic into local communities posing safety risks to people living and playing along the route
- Widenings also faced opposition for safety reasons, concerned about more lanes and faster traffic.
- Other new location roadways or roadway widenings faced opposition due to concern of environmental impacts on parks, natural areas, and wetlands

### **Minimize or deprioritize widenings if intersection improvements, modernization, and transit alternatives can help resolve most issues**

- Several intersection and roadway comments noted locations where proper turn lanes, better signal timing, and other improvements could potentially resolve issues enough to not need a widening
- Added or improved transit alternatives in some cases may be enough to make substantial widenings unnecessary, especially if rail

### **Prioritize intersections that are unsafe or confusing and intersections that are regional congestion points**

- Several intersections noted as priorities were either actively unsafe or caused significant backups or other needs/issues that caused additional backups

## BIKE/PED

*Note that the following represents public feedback*

### **Ensure areas of new development are included in recommended connections**

- Some areas of growing development would benefit greatly from connections to the planned network
  - These new subdivisions increasingly have internal sidewalk and path networks but currently lack connections to any key destinations or surrounding areas

### **Greenways should be carefully planned with natural environment to maximize usefulness and minimize environmental impact**

- Greenways and shared use paths should minimize harm to wetlands, riparian buffers, etc
- Provide alternative routes at points of greenways prone to flooding to ensure they remain usable during flooding

**Provide bike and pedestrian crossing improvements for crossing dangerous roads, connecting key neighborhoods, or accessing key destinations like schools and parks**

- Crossings at places like Powhatan Elementary, Smithfield Middle and Smithfield-Selma High School helps ensure children are connected to nearby parks and have safe routes to and from school
- Crossings in communities divided by large thoroughfares, especially with destinations like shopping centers
- Improve crossings at dangerous intersections where they do exist

**Continue to provide additional alternative connections to major greenways from different neighborhoods for regional connectivity that allows greenways to be used both recreationally and occupationally for commuting**

- The Clayton/Garner/Southeast Raleigh area saw a lot of support for connections that made it easier for different neighborhoods to safely access the Neuse River Greenway or continue into downtown Raleigh
  - Routes that connected into downtown Clayton from the northwest and southeast sides of town/continued the Sam's Branch Greenway were popular for providing additional connections more directly to downtown than the current connection

**Adding paved shoulders on narrow country roads is also helpful for safety**

- Paved shoulders are not a replacement for bike lanes, shared paths, or other dedicated infrastructure, but can make it safer for people who walk, bike, or run along the road
- In cases where a rural road is not expected to see development to warrant sidewalks or multiuse paths, ensuring adequate shoulders can make the road safer

*Note that the following represents CTT and public feedback*

**Work to find solutions for tension between need to access destinations along major corridors and danger or major corridors themselves**

- Some public and CTT comments noted that some major corridors may be too dangerous for certain kinds of shared or bike facilities (ex. NC 50, US 70/US 70 Business) due to speeds, width, and number of driveways. The CTT generally recommended parallel routes, and parallel routes in Clayton and Garner saw a lot of support
- However, some of these routes were also seen as important connections by the public due to destinations along the route

## TRANSIT

*Note that the following represents public feedback*

### **Ensure sure major regional destinations are served/well connected**

- Ensure strong regional connections to Johnston Community College, Johnston UNC Health, and Downtown Smithfield in addition to downtown Selma/Amtrak
  - Public comment suggested loop or continuation of Clayton-Selma Connector (potentially select trips)
  - Reliable access to regional destinations and employment centers can help drive core ridership
- Consider having Clayton-Garner Circulator include the Clayton Walmart

*Note that the following represents CTT and public feedback*

### **If feasible, include additional service for West Garner and future consideration of other centers in Johnston County**

- Comments noted need for public transit beyond just the US 70 Corridor
- Multiple public comments noted need for improved transit in the US 401/Old Stage/NC 50 areas
- Comment expressed desire for connections from I-40/NC 42 and I-40/NC 210 areas to Smithfield and to Raleigh/BRT
  - CTT discussion implied additional or more direct connections to secondary centers around Benson and west Johnston County and into Raleigh, etc would most likely be a future consideration if demand warrants rather than a current one due to current lack of residential concentration

*Note that the following represents CTT feedback*

### **Work with the Raleigh-Garner N-S BRT to ensure routes support each other**

- Routes need to feed into the BRT rather than compete with it to avoid sabotaging ridership
- System is codependent- need to show how lines meet needs and are codependent and work to have them connect efficiently

## Next Steps

The project team will take the feedback received from committee members and the public to finalize the modal recommendations and begin drafting the final summary report. The SEAS Update summary report will then be released for public comment during the final touchpoint with the community with the goal of plan endorsement by CAMPO.

# APPENDICES





## Appendix A: CTT and SOT Meeting Summaries



A

# SEAS

S O U T H E A S T   A R E A   S T U D Y

## UPDATE

### CTT and SOT Land Use Scenario Planning Workshop

**When:** October 21, 2022  
12:00 – 2:00 PM

**Where:** Johnston County Ag  
Center

# JOINT CTT AND SOT SCENARIO PLANNING WORKSHOP

## Introduction

This document summarizes the Southeast Area Study (SEAS) Update scenario planning workshop held with the project's Core Technical Team (CTT) and Stakeholder Oversight Team (SOT). This summary provides an overview of the meeting agenda, presentation, and discussion, and is accompanied by the meeting presentation and recording. A total of 24 people attended the meeting. The full participant list is included as an attachment at the end of this document.

## Summary

### Project Progress

The project team initiated the meeting by introducing themselves, reviewing the agenda, and explaining meeting logistics. The project team then established the purpose and intended outcome of the meeting, shown in the table below.

<i>Meeting Purpose</i>	<i>Meeting Outcome</i>
The objective of this meeting was to introduce the Existing Plans scenario to the Core Technical Team (CTT) and Stakeholder Oversight Team (SOT) members and to get feedback to guide the creation and evaluation of alternative scenarios.	Members were informed of the plan's progress, introduced to the Existing Plans scenario, and engaged in a conversation about tradeoffs and what they wanted to see in alternative scenarios.

Next, the project team briefly recapped the project schedule.

### Land Use Scenario Planning

The next part of the presentation was a brief review of what scenario planning was and of the scenario planning process. The following scenario development and performance measure indicators portions made up the largest portion of the meeting.

## Scenario Development

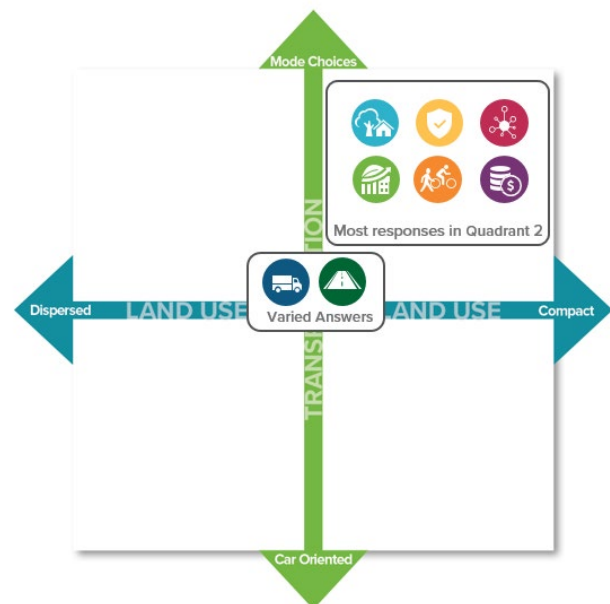
The next part of the presentation introduced the Existing Plans scenario to the committees and began a discussion about what the committees wanted to see emphasized in the two alternative scenarios. Questions included “How and where do we want to grow and transform?” And “What do we need to preserve?”.

The project team recapped previously discussed feedback from polling at previous SOT meetings on how much growth was ideal for the Southeast Area, with results reflecting a general preference for moderate growth leaning towards shops and jobs and more compact development. They also briefly covered notes as import

### GROUP ACTIVITY

CTT and SOT members were given a key that explained each SEAS Update guiding principle. They were then asked to work in groups to rank the guiding principles on a spectrum by whether, in order to achieve a given principle, land use should be more compact or more dispersed and whether the transportation network should lean towards more mode choices or be more car oriented. The results of the activity are below:

- Livability, Sustainable Growth, Travel Safety, Active Transportation, Network Connectivity, and Economic Vitality all had most responses in the top right quadrant, favoring more mode choices and more compact land use.
- Traffic Flow and Freight had more varied results, split on land use and with a slight lean towards mode choices.



The results of the ranking activity were used to understand how our guiding principles should affect the development of the two alternative scenarios.

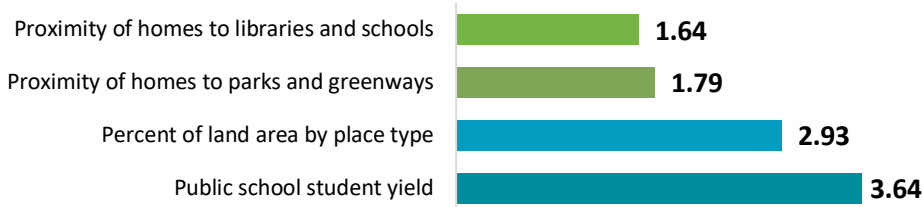
## Performance Measure Indicators

The next part of the presentation explained the idea of performance measures and their purpose in comparing how each land use scenario performs based on measurable indicators.

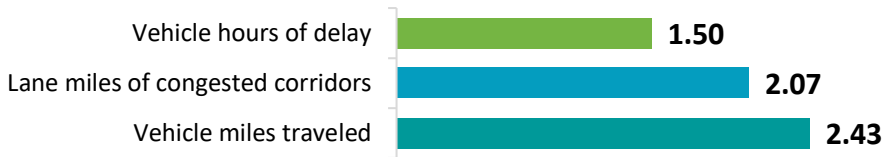
### GROUP ACTIVITY

CTT and SOT members were given a key that included each guiding principle and what draft indicators were associated with each to evaluate how well a scenario was meeting that principle. They were asked to work in groups to rank the draft indicators by importance.

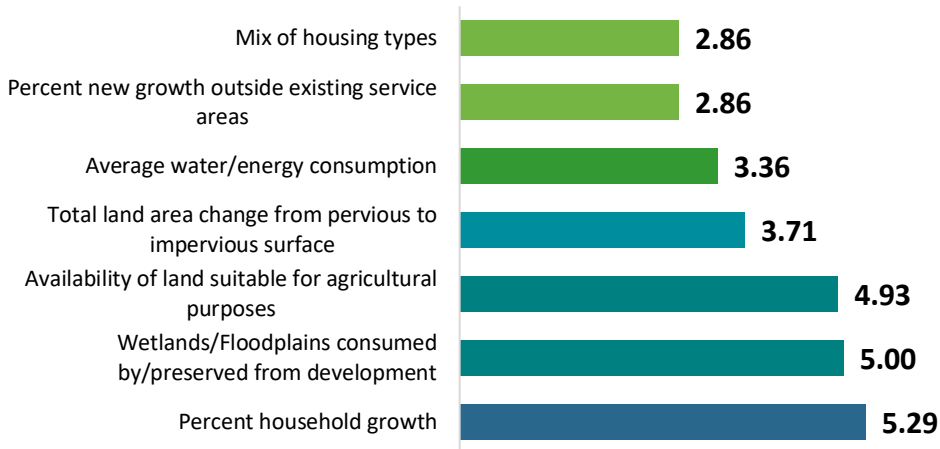
### Livability Indicators



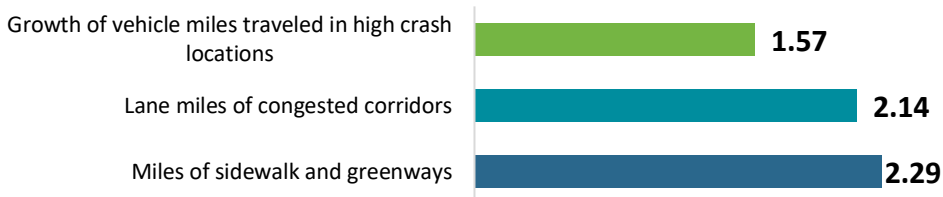
### Traffic Flow Indicators



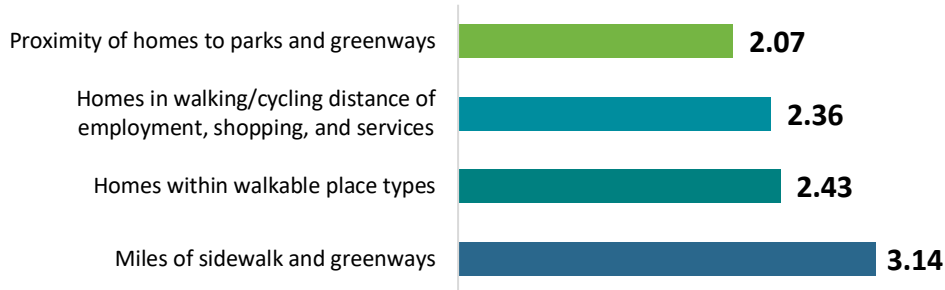
### Sustainable Growth Indicators



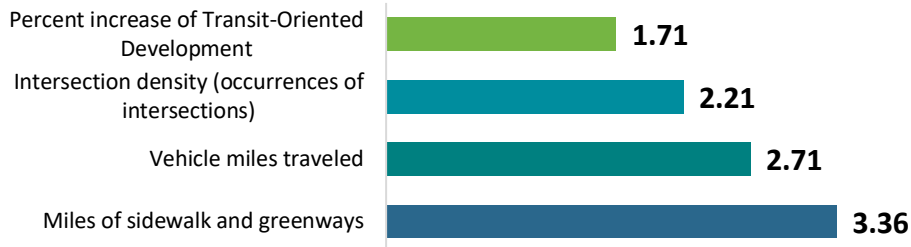
### Travel Safety Indicators



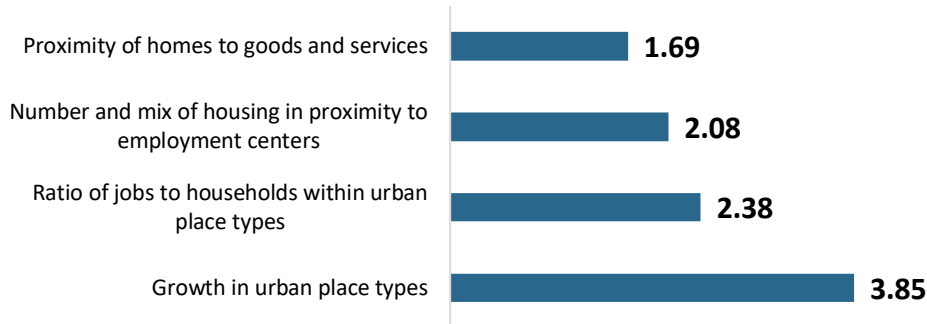
### Active Transportation Indicators



### Network Connectivity Indicators



### Economic Vitality Indicators



## Wrap Up and Next Steps

The project team wrapped up the presentation with a review of next steps including developing and testing the alternative scenarios, continuing policy review and diagnosis, and developing modal recommendations.

## Attachment 1 | Attendance List

First Name	Last Name	Agency	SEAS Role
Erin	Joseph	Benson	CTT
Jerry	Medlin	Benson	SOT
Kimberly	Pickett	Benson	CTT
Shelby	Powell	CAMPO	Project Team
Matt	Day	Central Pines Regional Council (TJCOG)	SOT
Porter	Casey	Clayton	SOT
Ben	Howell	Clayton	CTT
Patrick	Pierce	Clayton	CTT
Kathy	Behringer	Garner	SOT
John	Hodges	Garner	CTT
Gaby	Lontos-Lawlor	Garner	CTT
Ken	Marshburn	Garner	SOT
Neal	Davis	JCATS	SOT
Todd	Marr	Johnston County Planning	
Samantha	Borges	Kimley-Horn	Project Team
Allison	Fluitt	Kimley-Horn	Project Team
James	Salmons	NCDOT-Div 4	CTT
Anne	Conlon	Raleigh	CTT
Bruce	McKay	Selma	SOT
Stephen	Wensman	Smithfield	CTT
Kim	Johnson	Triangle Transportation Choices	SOT
Tim	Gardiner	Wake County	CTT
Akul	Nishawala	Wake County	CTT
Asa	Fleming	Wake County Planning Board	SOT
Fleta	Byrd	Wilson's Mills	SOT

# SEAS

S O U T H E A S T   A R E A   S T U D Y

## UPDATE

**What:** Core Technical Team Meeting No. 3

**When:** Thursday, March 30, 2023  
10:30am -12pm

**Where:** Virtual | Zoom

## CORE TECHNICAL TEAM MEETING NO.3

### Introduction

This document summarizes the third Southeast Area Study (SEAS) Update meeting held with the project’s Core Technical Team (CTT). This summary provides an overview of the meeting agenda, presentation, and discussion, and is accompanied by the meeting presentation.

### Summary

#### Project Update

The project team initiated the meeting by establishing the purpose and intended outcome of the meeting, shown in the table below.

<i>Meeting Purpose</i>	<i>Meeting Outcome</i>
The objective of this meeting is to update the Core Technical Team (CTT) on the scenario development process, discuss the outcomes of the three previously identified scenarios, and get CTT feedback to move towards creating a preferred scenario.	Attendees will have a clear understanding of where the project is in the scenario planning process, will be familiar with the outcomes of each scenario, and be able to provide feedback and preferences that will lead to the development of a final preferred scenario.

Next, the project team briefly recapped the project schedule, progress made to date, and discussed changes to the schedule.

#### Scenario Development

In the next part of the presentation, the project team briefly reviewed the scenario planning process and recapped how the scenario narratives that led to the alternative scenarios were created

#### Scenario Testing

The majority of the meeting focused on the presentation/discussion of the three initial future land use scenarios. The project team presented the two newly developed alternative future land use scenarios, the Corridors and Centers scenarios, to the CTT for the first time while also showing the Existing Plans scenario in more detail for comparison and contrast. This presentation broke each scenario down by place types, distribution of different types of homes and employment, and detailed performance measures such as housing mix, homes and jobs near transit, and vehicle hours of delay.

#### DISCUSSION QUESTIONS

Throughout the presentation, the project team paused for questions and discussion, including:



- Identify what we should aim for in terms of density in our preferred scenario.
- How many (what percent of) homes/jobs should be transit accessible?
- Rank these performance measures in order of importance to you.
- Which Scenario is most consistent with your vision for the Southeast Area?

## Wrap Up and Next Steps

The project team wrapped up the presentation with a review of next steps, including developing the Preferred scenario and the drafting of initial modal recommendations. A public symposium was scheduled to discuss the draft preferred scenario, continued policy review, and draft recommendations.

## Attachment 1 | Attendance List

First Name	Last Name	Agency	SEAS Role
<i>Erin</i>	<i>Joseph</i>	<i>Benson</i>	<i>CTT</i>
<i>Jerry</i>	<i>Medlin</i>	<i>Benson</i>	<i>SOT</i>
<i>Kimberly</i>	<i>Pickett</i>	<i>Benson</i>	<i>CTT</i>
<i>Shelby</i>	<i>Powell</i>	<i>CAMPO</i>	<i>Project Team</i>
<i>Matt</i>	<i>Day</i>	<i>Central Pines Regional Council (TJCOG)</i>	<i>SOT</i>
<i>Porter</i>	<i>Casey</i>	<i>Clayton</i>	<i>SOT</i>
<i>Ben</i>	<i>Howell</i>	<i>Clayton</i>	<i>CTT</i>
<i>Patrick</i>	<i>Pierce</i>	<i>Clayton</i>	<i>CTT</i>
<i>Kathy</i>	<i>Behringer</i>	<i>Garner</i>	<i>SOT</i>
<i>John</i>	<i>Hodges</i>	<i>Garner</i>	<i>CTT</i>
<i>Gaby</i>	<i>Lontos-Lawlor</i>	<i>Garner</i>	<i>CTT</i>
<i>Ken</i>	<i>Marshburn</i>	<i>Garner</i>	<i>SOT</i>
<i>Neal</i>	<i>Davis</i>	<i>JCATS</i>	<i>SOT</i>
<i>Todd</i>	<i>Marr</i>	<i>Johnston County Planning</i>	
<i>Samantha</i>	<i>Borges</i>	<i>Kimley-Horn</i>	<i>Project Team</i>
<i>Allison</i>	<i>Fluitt</i>	<i>Kimley-Horn</i>	<i>Project Team</i>
<i>James</i>	<i>Salmons</i>	<i>NCDOT-Div 4</i>	<i>CTT</i>
<i>Anne</i>	<i>Conlon</i>	<i>Raleigh</i>	<i>CTT</i>
<i>Bruce</i>	<i>McKay</i>	<i>Selma</i>	<i>SOT</i>
<i>Stephen</i>	<i>Wensman</i>	<i>Smithfield</i>	<i>CTT</i>
<i>Kim</i>	<i>Johnson</i>	<i>Triangle Transportation Choices</i>	<i>SOT</i>
<i>Tim</i>	<i>Gardiner</i>	<i>Wake County</i>	<i>CTT</i>
<i>Akul</i>	<i>Nishawala</i>	<i>Wake County</i>	<i>CTT</i>
<i>Asa</i>	<i>Fleming</i>	<i>Wake County Planning Board</i>	<i>SOT</i>
<i>Fleta</i>	<i>Byrd</i>	<i>Wilson's Mills</i>	<i>SOT</i>

# SEAS

S O U T H E A S T A R E A S T U D Y

## UPDATE

**What:** Core Technical Team Meeting No. 4

**When:** Wednesday, May 24, 2023  
2 – 4 pm

**Where:** Clavton Town Hall | 111 E.

# CORE TECHNICAL TEAM MEETING NO. 4

## Introduction

This document summarizes the fourth Southeast Area Study (SEAS) Update meeting held with the project’s Core Technical Team (CTT). This summary provides an overview of the meeting agenda, presentation, and discussion, and is accompanied by the meeting presentation. A total of 21 people attended the meeting. The full participant list is included as an attachment at the end of this document.

## Summary

### Project Update

The project team initiated the meeting by establishing the purpose and intended outcome of the meeting, shown in the table below.

<i>Meeting Purpose</i>	<i>Meeting Outcome</i>
The objective of this meeting is to update the Core Technical Team (CTT) on the outcomes of the preferred land use scenario, introduce and discuss the draft modal recommendations, and discuss the next steps in community engagement.	Attendees will have a clear understanding of the outcomes of the preferred scenario and will be able to provide meaningful feedback on the draft modal recommendations.

Next, the project team briefly recapped the project schedule, progress made to date, and discussed changes to the schedule.

### Scenario Planning

The project team briefly recapped the findings within the Existing Plans, Centers, and Corridors scenarios, then went over some key points that emerged in earlier scenario development meetings, including:

- General preference for the Centers scenario
- Increase Multifamily Housing
- More density was preferred
- Land consumed and housing mix are important metrics

The project team then introduced the preferred scenario, showed how it addresses these points, and presented how it performs against the Existing Plans scenario.

## Land Use Best Practice Toolbox

Next the project team discussed policy priorities and best practice. The team presented findings from evaluating each SEAS communities' plans and codes. All SEAS communities had made progress towards implementing priority strategies through new plans, modified codes, etc. since the original SEAS. However, there were still additional opportunities noted to strengthen plan and code provisions, as well as new and modified priorities. The team emphasized a new focus on implementation through regulations, utility coordination, capital investments, and acting on policies.

## Draft Modal Recommendations

The majority of the meeting was dedicated to presenting the first draft of the draft bike/ped, transit, roadway, and intersection recommendations. The project team explained the recommendation development process, then presented the draft of recommended projects by mode (bike/ped, transit, roadway and intersection) and opened for discussion. Additional policy-based recommendations and considerations were also presented.

The CTT primarily provided feedback about transit recommendations, emphasizing that the projects are dependent on each other. Members suggested tweaks to routes to reflect existing BRT/transit plans and needed connectivity between services.

The team also presented an update on the selected US 70 Business/NC 42/Future Ranch Road hot spot and the reasoning for its selection.

## Public Engagement and Wrap Up

The project team wrapped up the presentation with a review of next steps, including details of the upcoming public symposium and the goals of engagement at the event.

## Attachment 1 | Attendance List

First Name	Last Name	Agency	SEAS Role
Steve	Bzomowski	Alta	Project Team
Matt	Hayes	Alta	Project Team
Erin	Joseph	Benson	CTT
Gaby	Lontos-Lawlor	CAMPO	Project Team
Shelby	Powell	CAMPO	Project Team
Jasmine	Davidson	Clarion	Project Team
Emily	Gvino	Clarion	Project Team
Leigh Anne	King	Clarion	Project Team
	Clayton Intern	Clayton	
Patrick	Pierce	Clayton	CTT
Bruce	Venable	Clayton	
Kyle	Hearing	Foursquare	Project Team
John	Hodges	Garner	CTT
Braston	Newton	Johnston County	CTT
Samantha	Borges	Kimley-Horn	Project Team
Allison	Fluitt	Kimley-Horn	Project Team
Anne	Conlon	Raleigh	CTT
Christopher	Golden	Raleigh	CTT
Stephen	Wensman	Smithfield	CTT
Tim	Gardiner	Wake County	CTT
Akul	Nishawala	Wake County	CTT

## Appendix B: Jurisdictional Group Meetings Summary



B

## JURISDICTIONAL GROUP MEETINGS SUMMARY

As part of the Southeast Area Study Update, a series of two meetings were held with planning staff from jurisdictions across the Southeast Area to better understand their preferred locations for growth and the state of their land use policies, as well as get feedback on potential hot spot study locations. On January 11th, the SEAS Project Team met with groups of planning staff from Southeast Area municipalities as well as from county planning departments (Wake and Johnston Counties) to discuss their priorities for future land use patterns.



### Meeting 1

- Benson
- *Four Oaks\**
- *Kenly\**
- *Micro\**
- *Pine Level\**
- Smithfield
- *Selma\**
- Wilson's Mills
- Johnston County



### Meeting 2

- *Archer Lodge\**
- Clayton
- Garner
- Raleigh
- Johnston and Wake Counties

*\*Planners from Archer Lodge, Four Oaks, Kenly, Micro, Pine Level, and Selma were unable to attend.*

## Meeting 1- January 11<sup>th</sup>

The first January 11<sup>th</sup> meeting focused on the areas of the study area in unincorporated Johnston County, the Smithfield-Selma-Wilson's Mills area, and jurisdictions roughly along I-95. Planners from Four Oaks, Kenly, Micro, Pine Level, and Selma were unable to attend the meeting.

### Benson

#### WHERE SHOULD WE DIRECT GROWTH?- CENTERS AND CORRIDORS

- NC 242 North Corridor
- Exit 325 (I-40 at NC 242)
  - Leads to McGees Crossroads
- New subdivisions on 242 North
- NC 27 and NC 301 are seeing growth



- ETJ expanded greatly recently

### LAND USE POLICY AND CODE DIAGNOSTIC

- Benson is updating their UDO in 2023
- Mixed use along NC 242 is desired
- Area has seen infill development of residential homes
- Gap in affordability

## Smithfield

### WHERE SHOULD WE DIRECT GROWTH?- CENTERS AND CORRIDORS

- Follow the Town Plan
  - *Per Town Plan's future land use map:*
    - *significant mixed use along M. Durwood Stephenson Hwy north of US 301 and on east side of US 70 Business/I-95*
    - *several smaller mixed-use centers throughout the town (ex. US 70 Business at NC 210 and at M. Durwood Stephenson Hwy, Buffalo Rd at M. Durwood Stephenson and at US 70 Bypass, US 301 near Holt Lake, at Brogden Rd, near Hospital Rd)*
    - *Industrial growth along US 70 Business West, Outlet Center Dr, and Wal-Pat Dr*
- US 70 Business east of I-95

### LAND USE POLICY AND CODE DIAGNOSTIC

- New Amazon facility on Business 70- when it opens, where to route trucks?
- New industrial growth in Buffalo Rd area

## Wilson's Mills

### WHERE SHOULD WE DIRECT GROWTH?- CENTERS AND CORRIDORS

- Has new business center coming
- Retail and business growth
- Downtown is considered at the railroad tracks
- Swift Creek Road and service roads as growth areas
  - Closing US 70 (grade separation/access management)
- Connecting between US 70 Bypass and US 70 Business

### LAND USE POLICY AND CODE DIAGNOSTIC

- Developers want to build townhomes- Adding zoning category for just townhomes because the only zoning that currently allows townhomes is mixed-use district

## Johnston County

### WHERE SHOULD WE DIRECT GROWTH?- CENTERS AND CORRIDORS

- 96 and 231 have more development
- Growth in Wendell area
- James Salmons (NCDOT, former UCPRPO):

- NC 210 between McGee's Crossroads and Smithfield
- US 301 between Benson and Smithfield

### LAND USE POLICY AND CODE DIAGNOSTIC

- Sewer capacity not being added until late 2024
- Now directing density to towns (might change with the comp plan on-going)
- Creating McGee small area plan
- Comp plan not yet adopted- delays
  - Agricultural district contention
  - Some don't want to direct density to towns
  - Concerns about residential growth (not preferred) over business/industrial - Benson

### Other

#### LAND USE POLICY AND CODE DIAGNOSTIC

- Pine Level adopted a land use plan in June 2022

## Meeting 2- January 11<sup>th</sup>

The second January 11<sup>th</sup> meeting focused on the northwestern area of the study area, including Archer Lodge, Clayton, Garner, Southeast Raleigh, and Johnston and Wake Counties. Planners from Archer Lodge were unable to attend the meeting.

### Clayton

#### WHERE SHOULD WE DIRECT GROWTH?- CENTERS AND CORRIDORS

- Corridors
  - Ranch Road
  - Oneil Road; Covered Bridge Road
  - Amelia Church Road
  - Cornwallis Road
  - Shotwell Road (maybe)
  - Old US 70 to Amelia Church Rd
  - Guy Road
- Centers
  - Highway 42/US 70 Bypass area
  - Cornwallis/42

#### LAND USE POLICY AND CODE DIAGNOSTIC

- Clayton is currently rewriting UDO
- Downtown Master Plan will be adopted in 2023
- Future I-42/US 70

## Garner

### WHERE SHOULD WE DIRECT GROWTH?- CENTERS AND CORRIDORS

- Corridors
  - Old Stage Road
  - Rock Quarry Road
- Centers
  - NC 540/Old Stage
  - NC 540 at NC 50
  - North/South BRT Station area (US 401 at US 70)
  - Garner Station area

### LAND USE POLICY AND CODE DIAGNOSTIC

- Working on amendment to GarnerForward that will address remaining questions
- Bike/Ped plan being adopted in early spring

## Raleigh

### WHERE SHOULD WE DIRECT GROWTH?- CENTERS AND CORRIDORS

- Rock Quarry Road to have growth at nodes
  - Whitfield Rd intersection
  - Battle Bridge Rd intersection (mixed use node)

### LAND USE POLICY AND CODE DIAGNOSTIC

- Reference Southeast Special Area Study
- Implementing comprehensive plan is difficult

## Wake County

### WHERE SHOULD WE DIRECT GROWTH?- CENTERS AND CORRIDORS

- Follow PlanWake

## Other

### WHERE SHOULD WE DIRECT GROWTH?- CENTERS AND CORRIDORS

- White Oak area between I-40 and NC 540

## Other Topics

### Hot Spot Toolkits

- Rename from Hot Spot Toolkits to avoid confusion with location based Hot Spots
- Combine access management and safety to make an Intersection Control Evaluation (ICE) process to guide development
- Need a metric to measure accessibility

- Smithfield noted importance of Transit Oriented Development as a topic
- Suggestion to reframe cost of sprawl as benefit of compact development
- Student generation as a potential topic (how many new students do certain types of developments tend to create)
- Smithfield suggested video for the broadest audience- Benson added need to have something to take away in conjunction with video
- Any combination of toolkits and hot spot locations should have at least one toolkit

### Hot Spot Locations

- Several hot spots **removed from consideration** based on current plans or projects:
  - US 70 at US 401
  - I-40 at NC 210
  - US 401 at Ten Ten Rd
  - Rock Quarry Rd at New Hope Rd
  - Buffalo Rd at NC 42
  - Garner Rd at Vandora Springs Rd
    - Infeasible to be grade separated so if it could have a different design solution that may be revisited
  - US 301 at Booker Dairy Rd
  - Ricks Rd/Outlet Center Dr
- Suggested hot spots:
  - South Brightleaf Boulevard/US 301
  - Railyard at Selma/I-95
  - Wilson's Mills Rd/Swift Creek Rd/Fire Department Road

### Other

- Currently towns have first choice to sewer developments- conflict between sewer capacity needs vs policy
- Any plans should take into the consideration the fast pace of change
- Who has a strategic plan? Or a plan that sets up more immediate next steps?
  - Should the SEAS set this up?
  - Should tie CIPs, Comp Plans, Strategic Plans together
  - Need to define "strategic," potentially "Strategic Investment Plan"

# Appendix C: Pop-Up Events Summary and Outreach Materials



C

# SEAS

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S O U T H E A S T A R E A S T U D Y

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## UPDATE

Archer Lodge | Benson | Clayton | Four Oaks | Garner | Kenly | Micro | Pine Level | Selma | Smithfield | Wilson's Mills  
Parts of Raleigh, Johnston County, and Wake County

The ***Southeast  
Area Study***  
has draft  
transportation  
recommendations  
and we need  
**YOUR** input!

Share *your ideas* on  
roadway, bicycle,  
pedestrian, and  
transit improvements.



**SCAN HERE** to  
take the online  
survey and for  
more information.

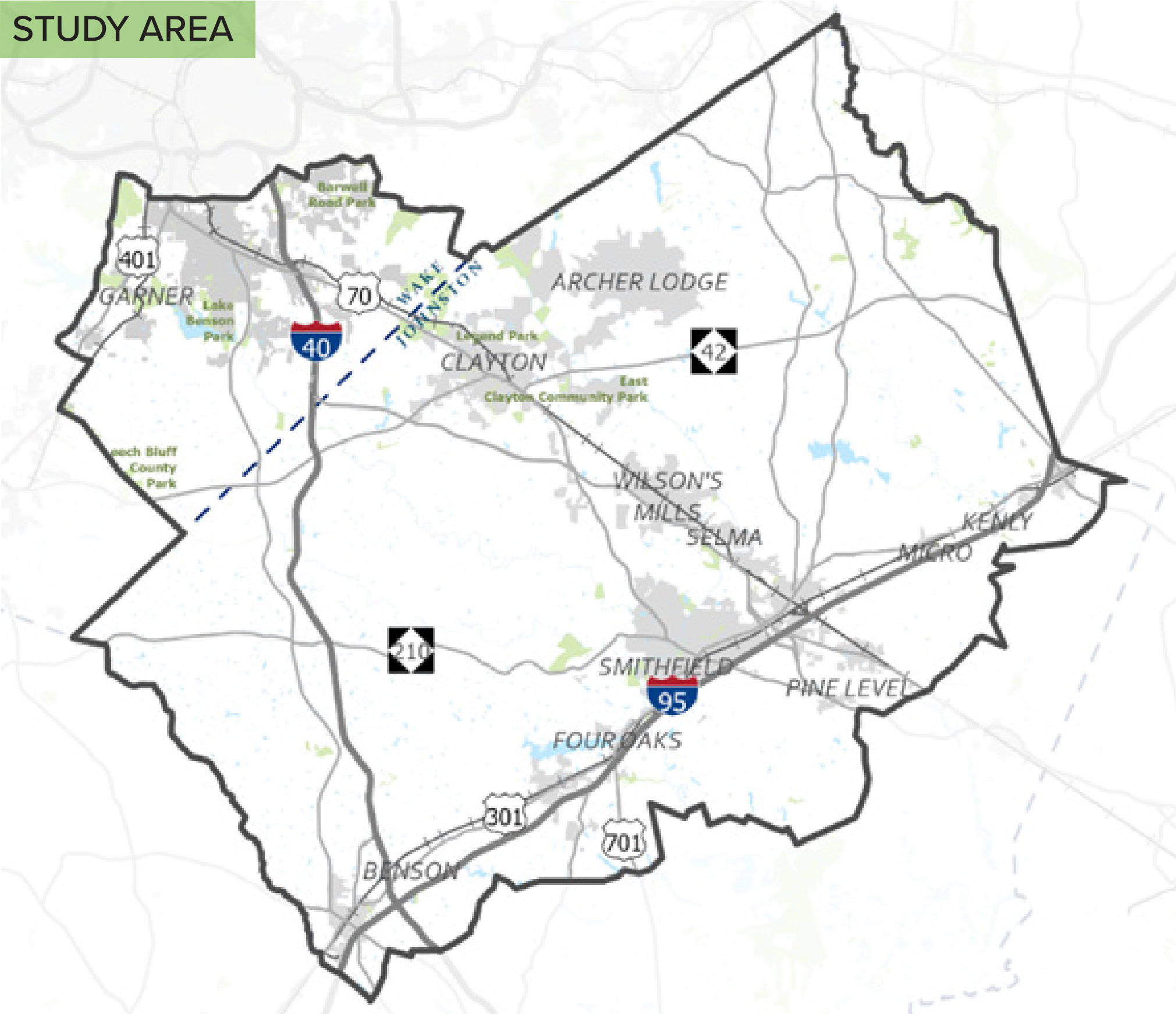
***seareastudyupdate.com***



### PROJECT OVERVIEW

The Capital Area Metropolitan Planning Organization (CAMPO) is updating the 2017 Southeast Area Study (SEAS) to refresh its recommendations for land use and transportation. You can learn more about the study on the project website.

#### STUDY AREA



#### Critical Transportation Issues

We also asked you what the most critical transportation issues in the study area are, and you answered:



### WHAT WE HEARD FROM YOU

Last summer, as part of Phase I Engagement, we asked you about your vision for the SEAS Update. From that feedback we updated the Guiding Principles from the 2017 SEAS to reflect the new goals of the SEAS Update.

#### Guiding Principles



##### LIVABILITY

Enhance and promote our region's quality of life through transportation and land use decisions that equitably support public health, education, parks and recreation, public art, and local character.



##### TRAFFIC FLOW

Make it easier to move within and through our region by reducing congestion and improving roadway operations.



##### SUSTAINABLE GROWTH

Blend development decisions and transportation strategies to promote and sustain employment and population growth by offering housing and neighborhood choices to meet diverse needs while preserving the area's natural features.



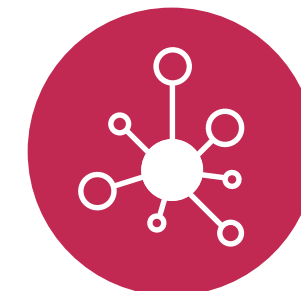
##### TRAVEL SAFETY

Promote a safer, more secure transportation system by reducing crashes, enhancing reliability and predictability, and improving emergency coordination.



##### ACTIVE TRANSPORTATION

Integrate our transportation network to provide travel choices, especially walking and cycling, for all users, regardless of age and ability.



##### NETWORK CONNECTIVITY

Link local and regional destinations through improved connections and enhanced integration among travel modes.



##### ECONOMIC VITALITY

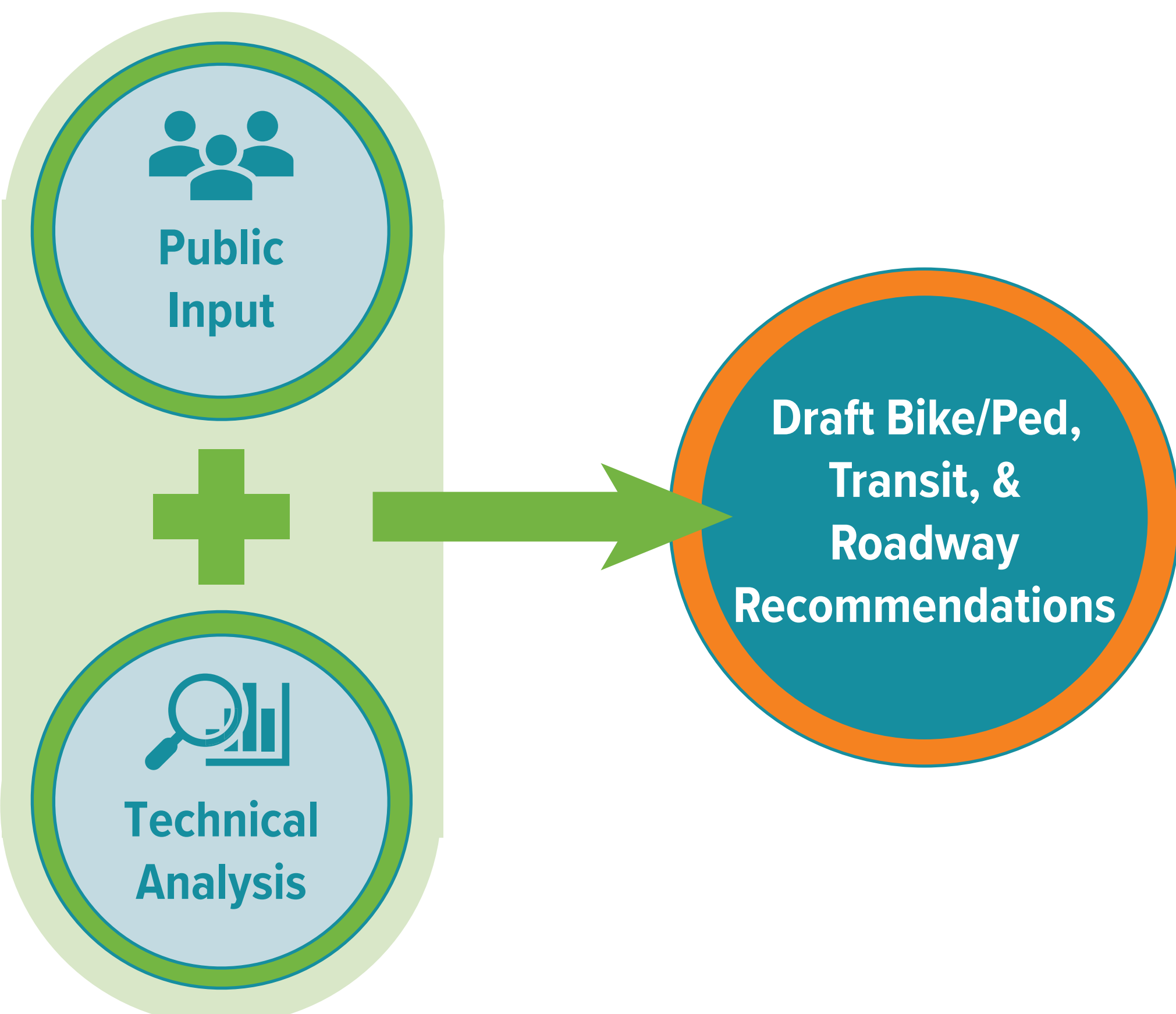
Grow our economy through a transportation network by connecting residents to jobs, goods, services, and opportunities within and beyond our region.



##### FREIGHT MOVEMENT

Support global competitiveness of our region through a transportation network that efficiently moves goods and services.

Visit the project website to read the full summary of Phase 1 Engagement.



### WHAT WE'VE DONE SINCE

In the year since Phase 1 Engagement, we've completed the technical needs and gaps analysis. The results of the analysis combined with the public input helped the project team create draft bicycle and pedestrian, transit, and roadway recommendations.

### WHAT WE NEED FROM YOU

We want to hear from you! We're asking for your feedback on our draft multimodal recommendations. **Do the recommendations address the issues you care about?**

We also want to know about your priorities. **What's important to you?** We need your feedback on how we should prioritize these projects.



[seareastudyupdate.com](http://seareastudyupdate.com)

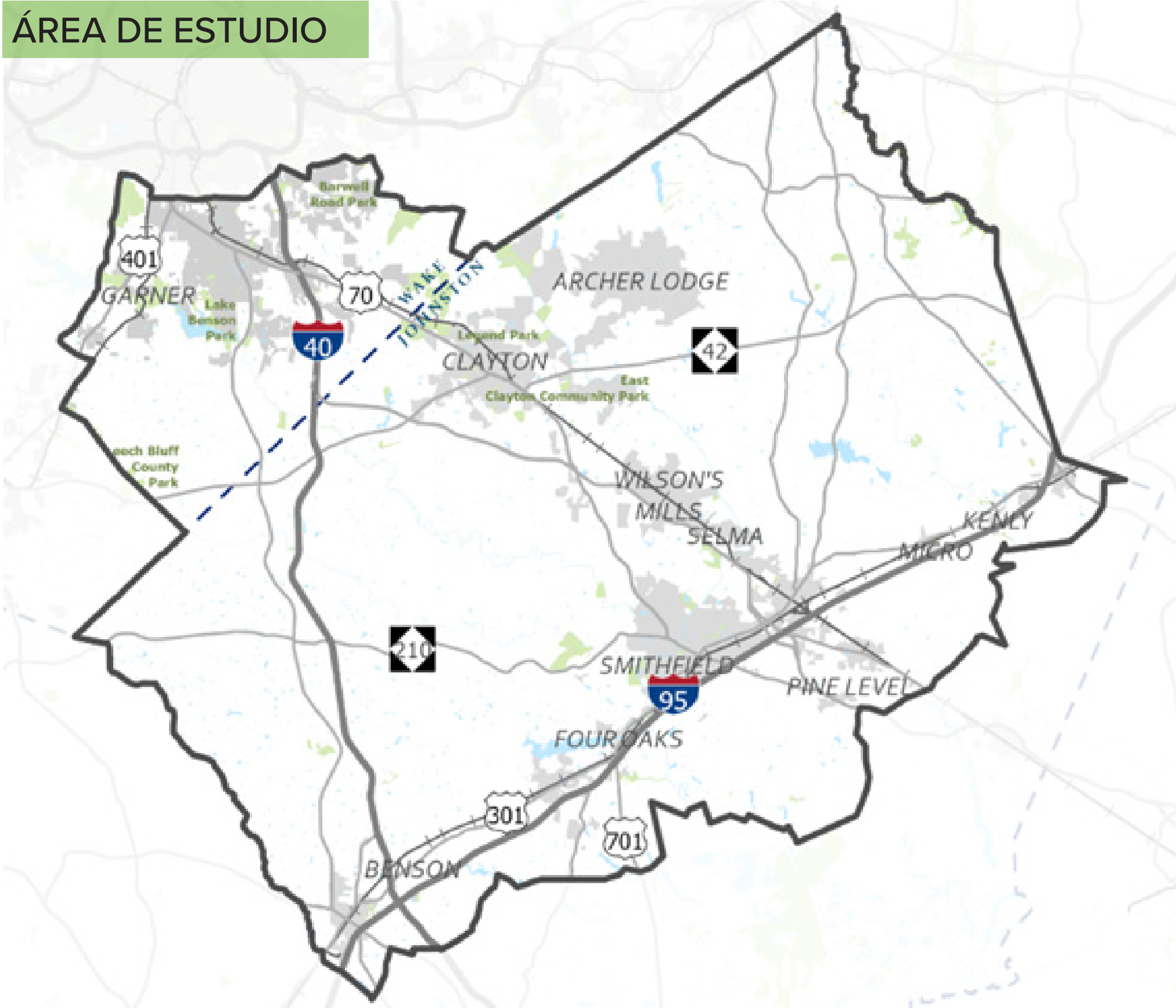
**Take the online public survey!**



### DESCRIPCIÓN GENERAL DEL PROYECTO

La Organización de Planificación Metropolitana del Área Capital (CAMPO, por sus siglas en inglés) está actualizando el Estudio del Área Sudeste (SEAS, por sus siglas en inglés) del 2017 para actualizar sus recomendaciones para el uso del suelo y el transporte.

#### ÁREA DE ESTUDIO



#### Problemas Críticos de Transporte

También le preguntamos cuáles eran los problemas de transporte más críticos en el área del estudio, y usted respondió:



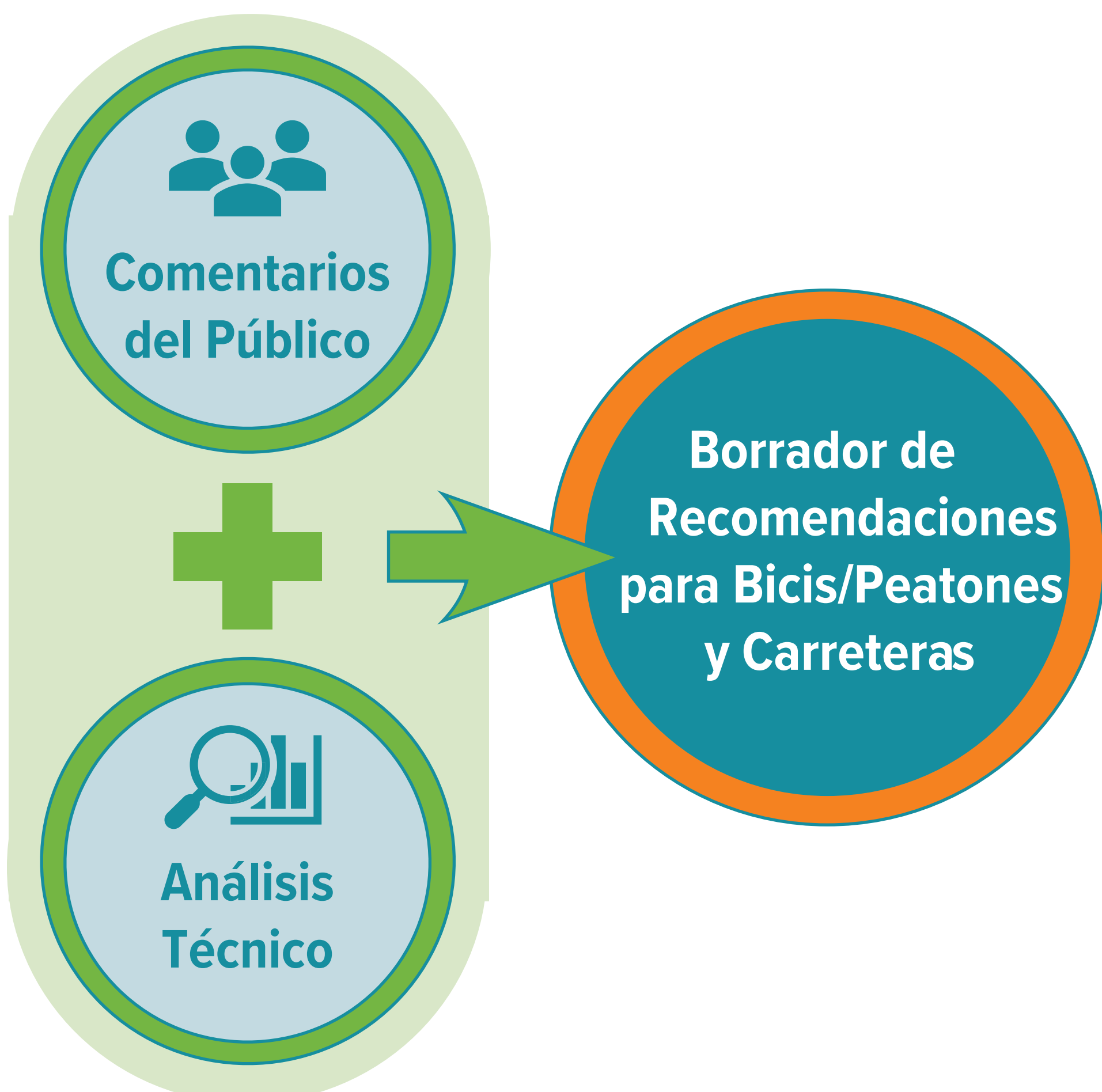
### LO QUE USTED NOS DIJO

El verano pasado, como parte de la Fase I, le preguntamos sobre su visión de la Actualización SEAS. En base a esos comentarios, actualizamos los Principios Rectores de SEAS 2017 para reflejar los nuevos objetivos de SEAS.

#### Principios Rectores

- HABITABILIDAD**  
 Mejorar y promover la calidad de vida de nuestra región a través de decisiones de transporte y uso de la tierra que respalden equitativamente la salud pública, la educación, los parques y la recreación, el arte público y el carácter local..
- FLUJO DEL TRÁFICO**  
 Facilitar el movimiento dentro y a través de nuestra región al reducir la congestión y mejorar las operaciones viales.
- CRECIMIENTO SOSTENIBLE**  
 Combinar las decisiones de desarrollo y las estrategias de transporte para promover y sostener el empleo y el crecimiento de la población al ofrecer opciones de vivienda y vecindario para satisfacer diversas necesidades mientras se preservan las características naturales del área.
- SEGURIDAD EN LOS VIAJES**  
 Promover un sistema de transporte más seguro al reducir los accidentes, mejorar la confiabilidad y la previsibilidad y mejorar la coordinación de emergencias.
- TRANSPORTE ACTIVO**  
 Integrar nuestra red de transporte para brindar opciones de viaje, especialmente a pie y en bicicleta, para todos los usuarios, independientemente de su edad y capacidad.
- CONECTIVIDAD DE LA RED**  
 Vincular destinos locales y regionales a través de conexiones mejoradas y una mayor integración entre los modos de viaje.
- VITALIDAD ECONÓMICA**  
 Hacer crecer nuestra economía a través de una red de transporte conectando a los residentes con trabajos, bienes, servicios y oportunidades dentro y fuera de nuestra región..
- MOVIMIENTO DE CARGA**  
 Apoyar la competitividad global de nuestra región a través de una red de transporte que mueva eficientemente bienes y servicios.

Visite el sitio del proyecto para saber más sobre el proyecto y leer el resumen completo sobre la Fase 1 Participación



### LO QUE HEMOS HECHO DESDE ENTONCES

Desde la Participación de la Fase 1, hemos completado el análisis técnico que, combinado con los comentarios del público, ayudó al equipo del proyecto a crear un borrador de recomendaciones para ciclistas y peatones, tránsito y carreteras.

### LO QUE NECESITAMOS DE USTED

¡Queremos saber de usted! Le pedimos su opinión sobre nuestro borrador de recomendaciones multimodales y su opinión sobre sus prioridades. **¿Las recomendaciones, abordan los problemas que le preocupan?**

También queremos saber cuáles son sus prioridades. **¿Qué es importante para usted?** Necesitamos sus comentarios sobre cómo deberíamos priorizar estos proyectos.

**¡Llene la Encuesta en Línea!**



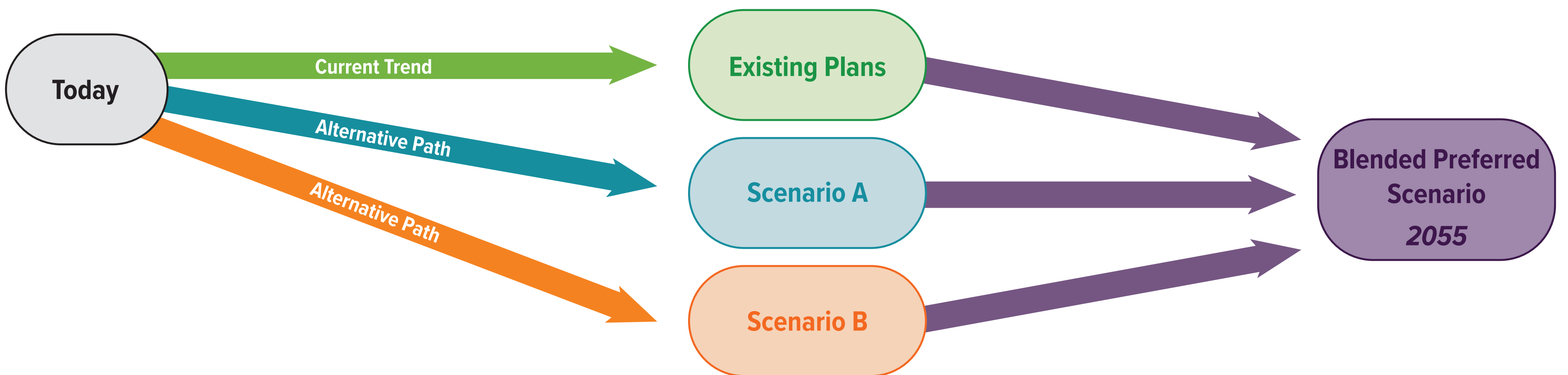


### SCENARIO PLANNING

Scenario planning compares different possible futures of an area to help decide where and how we should grow. For the SEAS Update, scenarios considered:

- What will our future look like if things **keep going like they are now?**
- What are some **alternative paths** we could take that might **better meet our goals?**

Each scenario was scored based on how well they advanced our guiding principles. The best parts of the original three scenarios were then combined to create a Preferred Scenario.



### PREFERRED SCENARIO

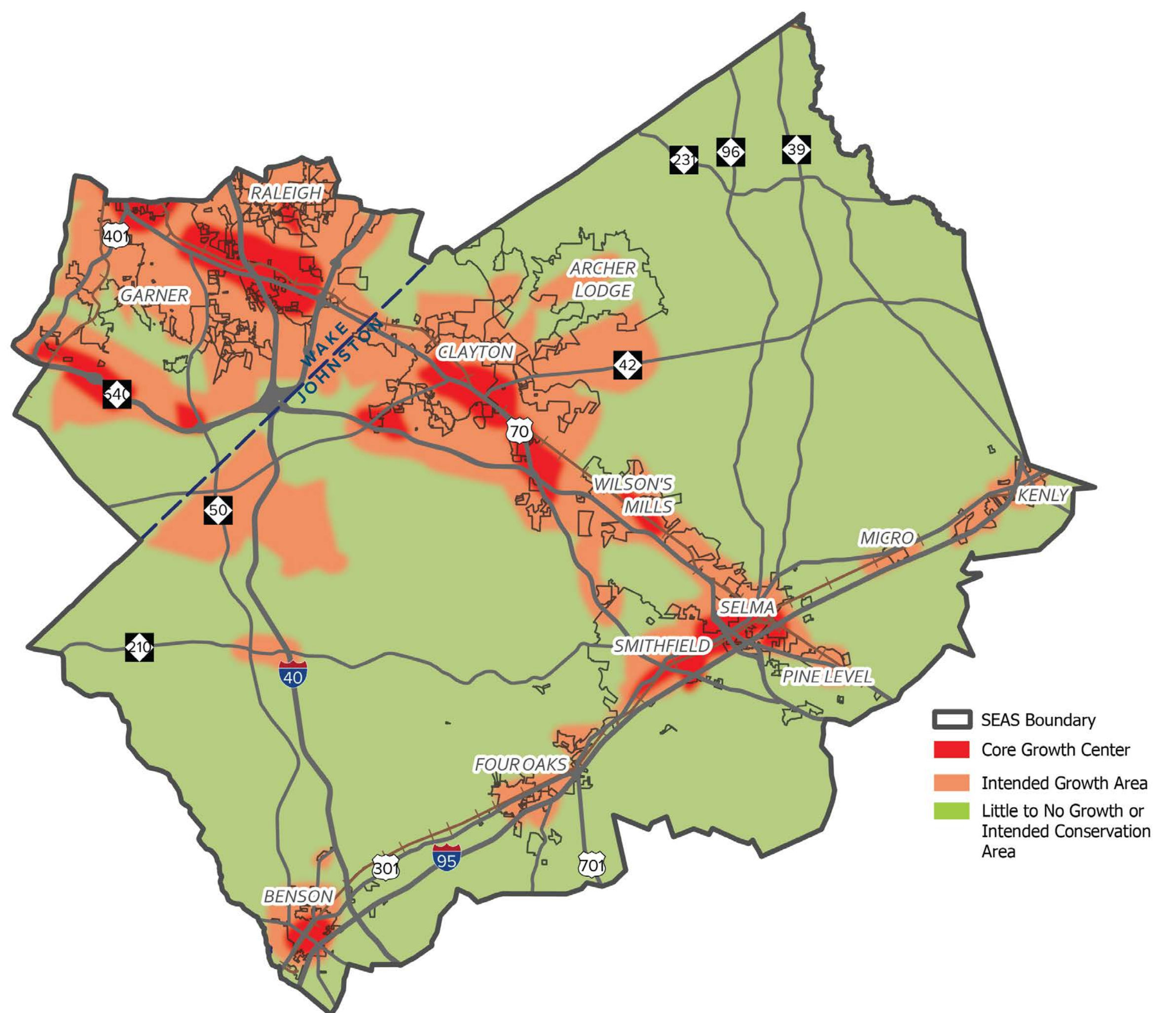
The preferred land use scenario focuses growth in towns and along major corridors like US 70 and US 301, while discouraging sprawl in rural areas. This scenario is intended to encourage more compact development while preserving the rural character of Johnston County.

### WHAT THE SCENARIO INFORMS

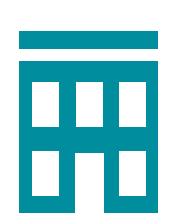








Knowing where we want growth will help make decisions about land use and transportation, such as:

- where to put **new homes and job centers** versus where to **preserve farms and forests**
- where to invest in roads, trails, and transit that can **support more people**

The land use and transportation recommendations created as part of the SEAS Update support the Preferred Scenario.



### Compared to the Existing Plans Scenario, the Preferred Scenario shows:

- |   |  |   |
|---|--|---|
|  <b>an increase</b> in urban areas   |  <b>an increase</b> in transit access to jobs   |  <b>an increase</b> in residential density   |
|  <b>a decrease</b> in suburban areas |  <b>an increase</b> in walkable homes and jobs  |  <b>a slight decrease</b> in congested roads |
|  <b>an increase</b> in rural areas   |  <b>a better balance</b> between homes and jobs |  <b>a slight increase</b> in delay           |





## PLANNING FOR THE BUILT ENVIRONMENT

### Land Use Plans and Land Development Regulations

**Land use plans** are created by local governments to help guide growth and development in a community and efficiently use resources. **Land development regulations**, or zoning regulations, implement land use plans. The 2017 SEAS included recommendations for each jurisdiction, organized by Priority Strategies and Important Strategies to Consider.

### What's Been Accomplished Since the 2017 SEAS

Since 2017, jurisdictions have made significant progress that advanced the recommendations of the SEAS.

Most SEAS communities updated their comprehensive land use plans and adjusted their land development regulations.

**Example:** Garner's adoption of the GarnerForward Comprehensive Plan in 2018 and update of their land development regulations in 2022.

Most SEAS communities took steps to provide a range of housing types through their comprehensive land use plans or regulations through zoning.

**Example:** Smithfield's 2019 Town Plan includes policy recommendations to allow for increased density and a variety of housing types.

### Some Ideas for the 2023 SEAS Update

The 2023 SEAS will focus on putting these policies to use in key focus areas, such as housing, bicycle and pedestrian improvements, mixed use development, and more. Examples include:



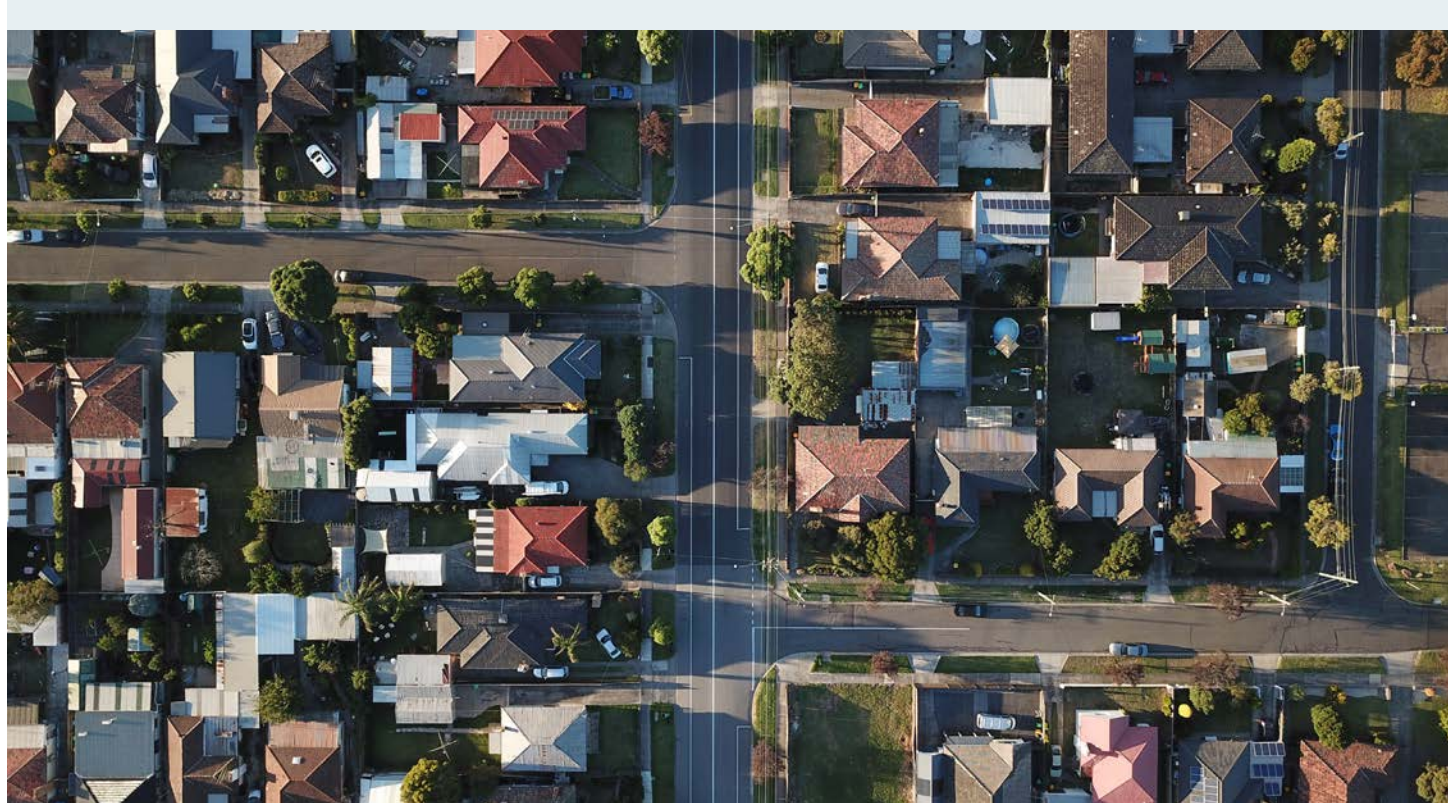
#### Transportation and Connectivity

- Street cross-sections that support land use and character goals
- Connect street networks
- Support bicycle and pedestrian expansion
- Right-size parking requirements
- Create design guidelines for key nodes



#### Economic Development and Downtown

- Coordinate future land use with economic development priorities
- Develop downtown redevelopment strategies
- Facilitate building re-use
- Flexibility and regular plan updates to respond to market shifts and planning "unknowns"



#### Growth and Housing

- Support higher densities in growth and redevelopment areas
- Preserve lower densities in rural and agricultural areas
- Support a range of housing options in growth areas
- Encourage mixed use at key growth nodes





## BENEFITS OF COMPACT DEVELOPMENT

### Land Use Trade-Offs

The **Scenario Planning Board** explained that we are working to achieve more compact development in the Southeast Area. Compact development is a type of land use that prioritizes higher density residences, active transportation, transit options, and a range of housing types. Land use decisions often require trade-offs. Consider the trade-offs below and place a sticker in the shaded box of the development type you prefer.

#### Density of Development

**Higher density** development increases the return on investment for public infrastructure and consumes less land but it can change the existing land use character.

**Lower density** development maintains existing low density character but requires more land and public infrastructure is more expensive on a per-person basis.

HIGHER DENSITY

LOWER DENSITY

#### Housing Types

**A range of housing types** provides more options for a variety of households, and increases the potential for more affordable housing.

**A focus on single-family homes** maintains single family character but doesn't meet a variety of household needs and can lead to suburban sprawl.

RANGE OF HOUSING

SINGLE-FAMILY

#### Transportation Options

**Multimodal** transportation includes people walking, biking, taking transit, and driving. This increases people's options for how they choose to travel to work, school, and everywhere else.

**Road-focused** transportation limits people's choices and does not offer recreational transportation options.

MULTIMODAL

ROAD FOCUS

#### Utility Expansion

**Plan-guided infrastructure** identifies targeted areas for growth and plans for infrastructure in those areas. This helps with funding and investment planning.

**Market determined infrastructure** lets development guide where infrastructure is extended. This can lead to sprawl and less efficient infrastructure and utilities.

PLAN-GUIDED  
INFRASTRUCTURE

MARKET DETERMINED  
INFRASTRUCTURE





### BICYCLE AND PEDESTRIAN RECOMMENDATIONS

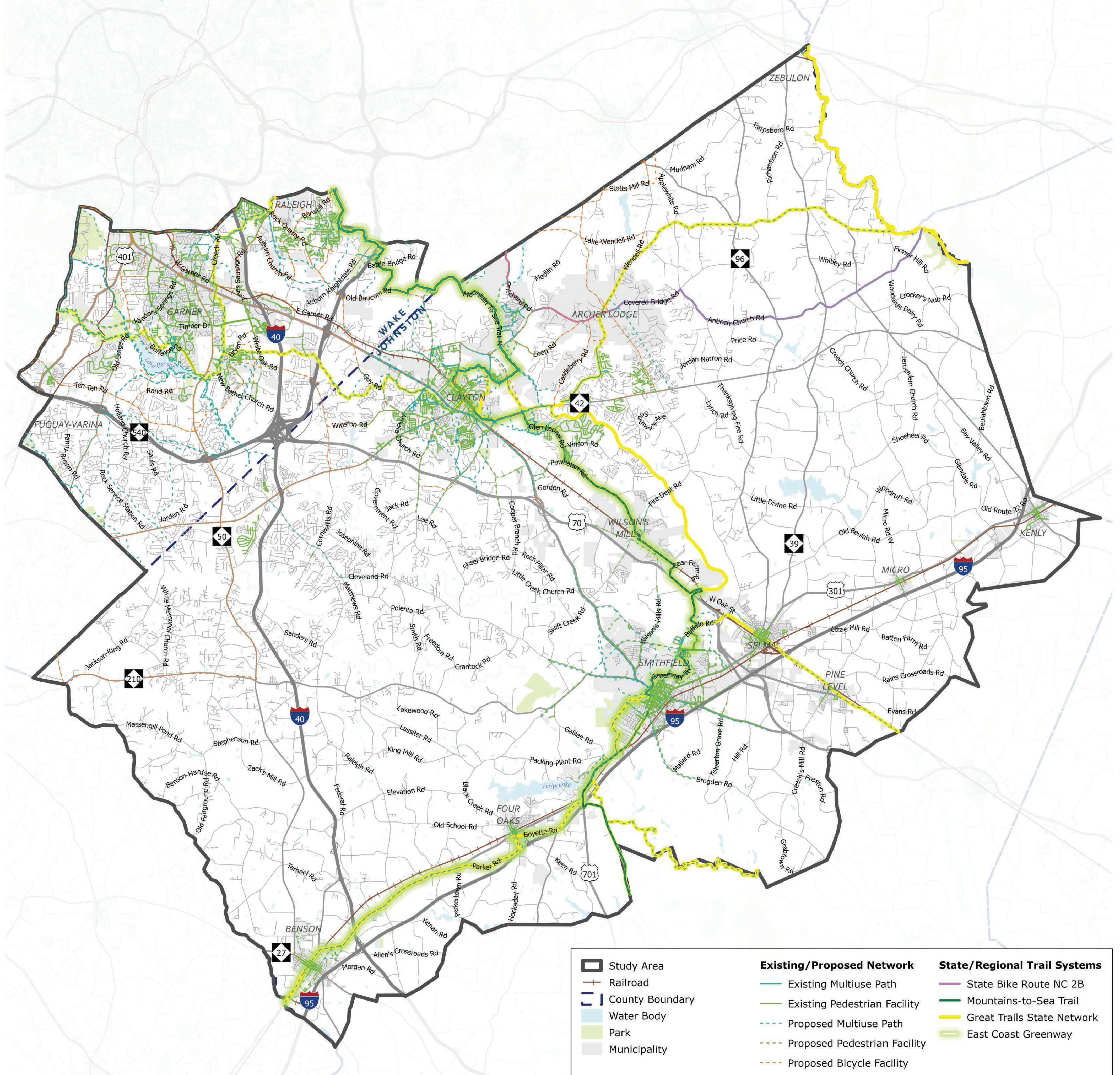
The recommendations below are a combination of previous local and regional planning efforts in the SEAS. This includes data from previous planning efforts such as the 2022 Smithfield Pedestrian Plan, 2022 Clayton Pedestrian Plan, the 2022 Neuse River Trail Feasibility Study, and many others.

#### BICYCLE AND PEDESTRIAN 'SPINES' OF THE SEAS

The 'spines' of the regional network are comprised of state and national trail systems such as the East Coast Greenway, Mountains to Sea Trail, Great Trails State network, and the NC State Bike Route System.

#### PROVIDE YOUR FEEDBACK

Use this board to provide your feedback on the bicycle and pedestrian recommendations in your worksheet or [take the online survey!](#)





### TRANSIT RECOMMENDATIONS

Transit recommendations focus on appropriately-scaled solutions that build on existing plans and services and prioritize investments that will benefit the most people. Recommendations create connections to the planned Garner-Clayton bus rapid transit route, ensuring regular transit service to Raleigh for residents throughout the Southeast Area.

#### Circulators

Frequent fixed-route service connecting key destinations and transfer points within communities with higher volumes of short trips; may include deviations.

#### Connectors

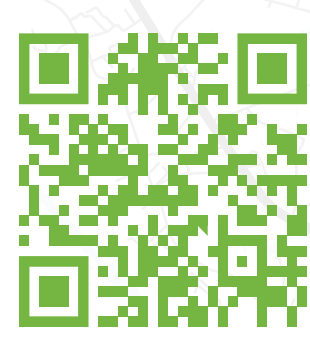
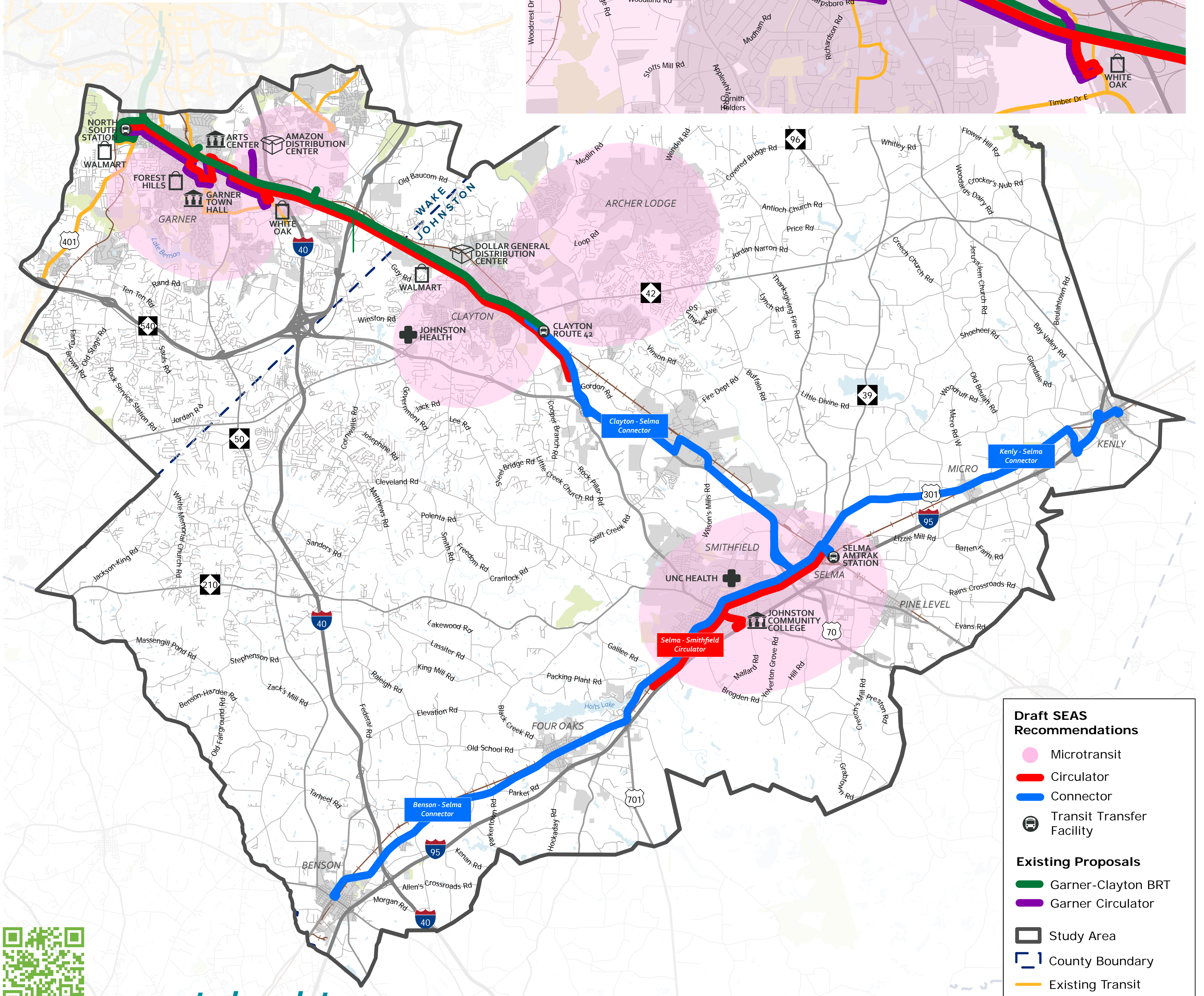
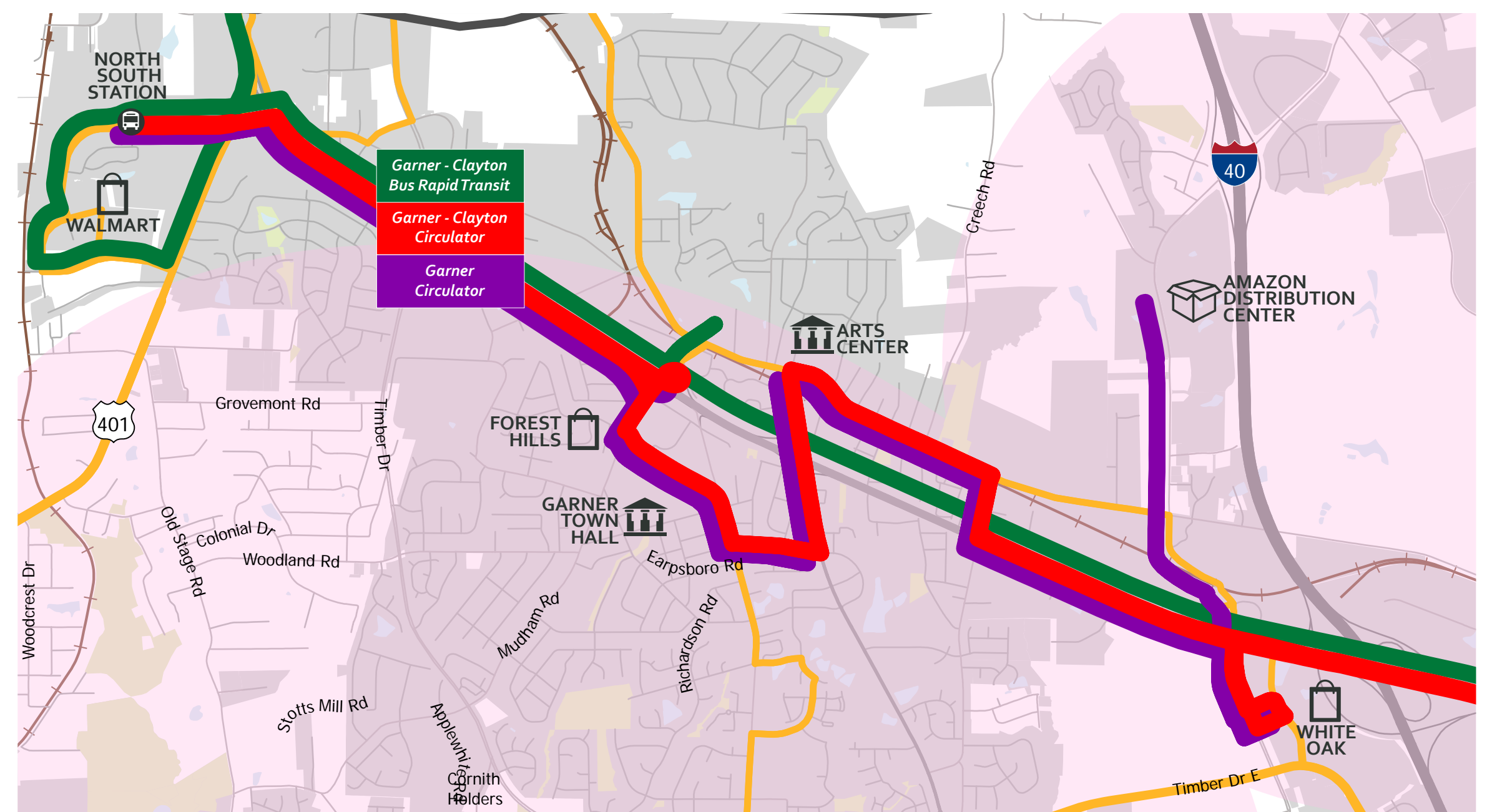
Extended connections between communities (all-day and peak-only).

#### Microtransit

On-demand, curb-to-curb service, connecting residents to destinations throughout their community, as well as circulators and connectors.

### PROVIDE YOUR FEEDBACK!

Use this board to provide your feedback on the transit recommendations in your worksheet or [take the online survey!](#)





### ROADWAY RECOMMENDATIONS

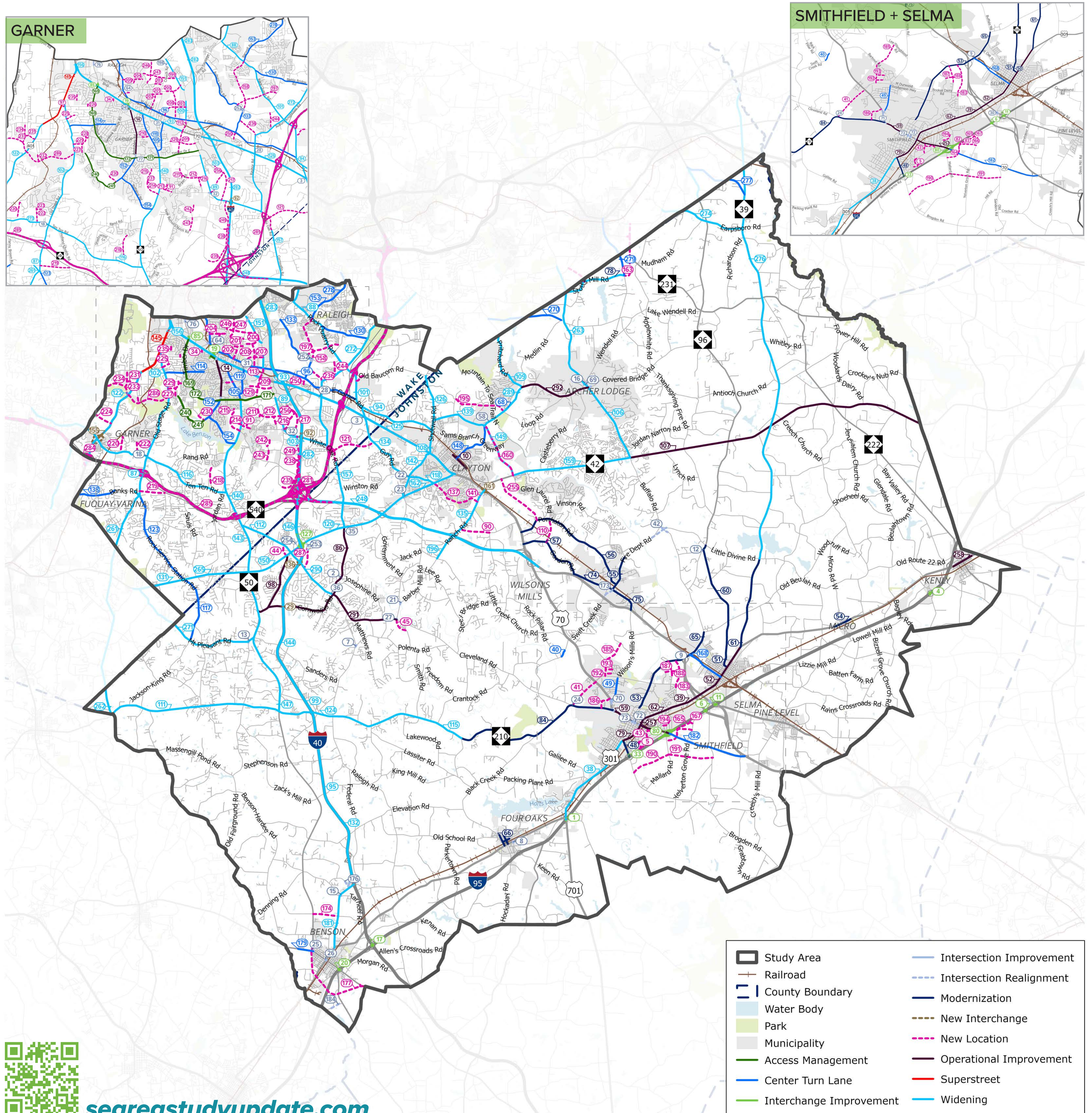
The recommendations below are a combination of previous local and regional planning efforts in the Southeast Area and additional recommendations created as part of the planning process for this SEAS Update. These build upon recommendations from previous plans including the CAMPO 2050 MTP, 2013 Johnston County CTP, 2018 GarnerForward, 2020 Smithfield Town Plan, 2021 Clayton Comprehensive Plan, and others.

### IMPROVED CORRIDORS AND ADDED CONNECTIONS

These recommendations focus on improving safety, congestion, and travel flow throughout the roadway network as the area continues to grow. This includes added turn lanes, widenings, or other operational improvements along existing major corridors, while adding needed connections to create alternate routes for local traffic.

### PROVIDE YOUR FEEDBACK

Use this board to provide your feedback on the roadway recommendations in your worksheet or [take the online survey!](#)





### INTERSECTION RECOMMENDATIONS

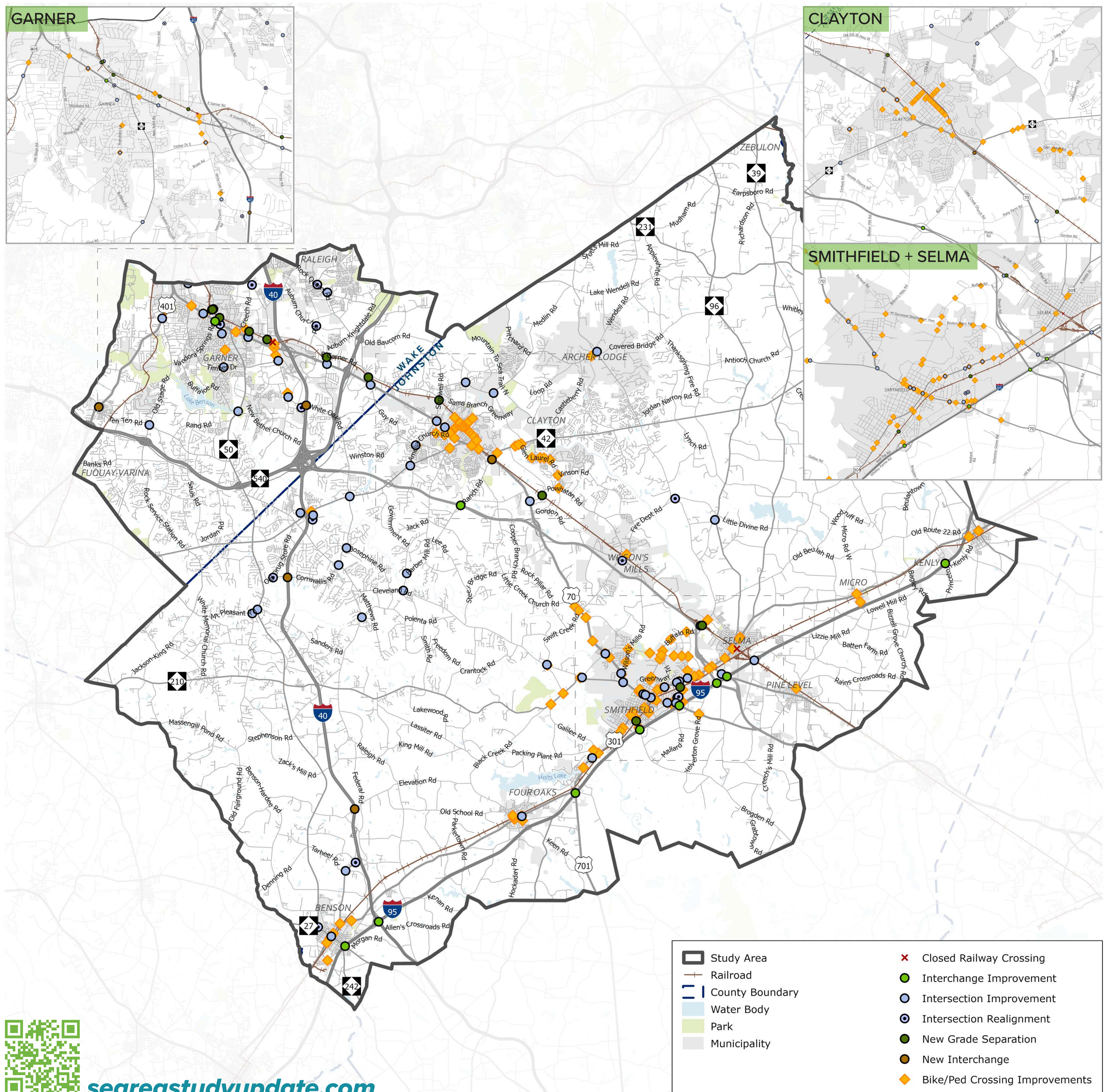
The recommendations below are a combination of previous local and regional planning efforts in the Southeast Area and additional recommendations created as part of the planning process for this SEAS Update. These build upon recommendations from previous plans including the CAMPO 2050 MTP, 2013 Johnston County CTP, local comprehensive plans, local pedestrian plans, and others.

### SAFETY IMPROVEMENTS AND IMPROVED OPERATIONS

The intersection recommendations focus on improving safety, operations, and travel flow through the roadway network. This includes realigned or redesigned intersections, new or updated bridges, and new or improved interchanges. These also include pedestrian crossing improvements in coordination with the SEAS Update's bicycle and pedestrian recommendations.

### PROVIDE YOUR FEEDBACK

Use this board to provide your feedback on the intersection recommendations in your worksheet or [take the online survey!](#)

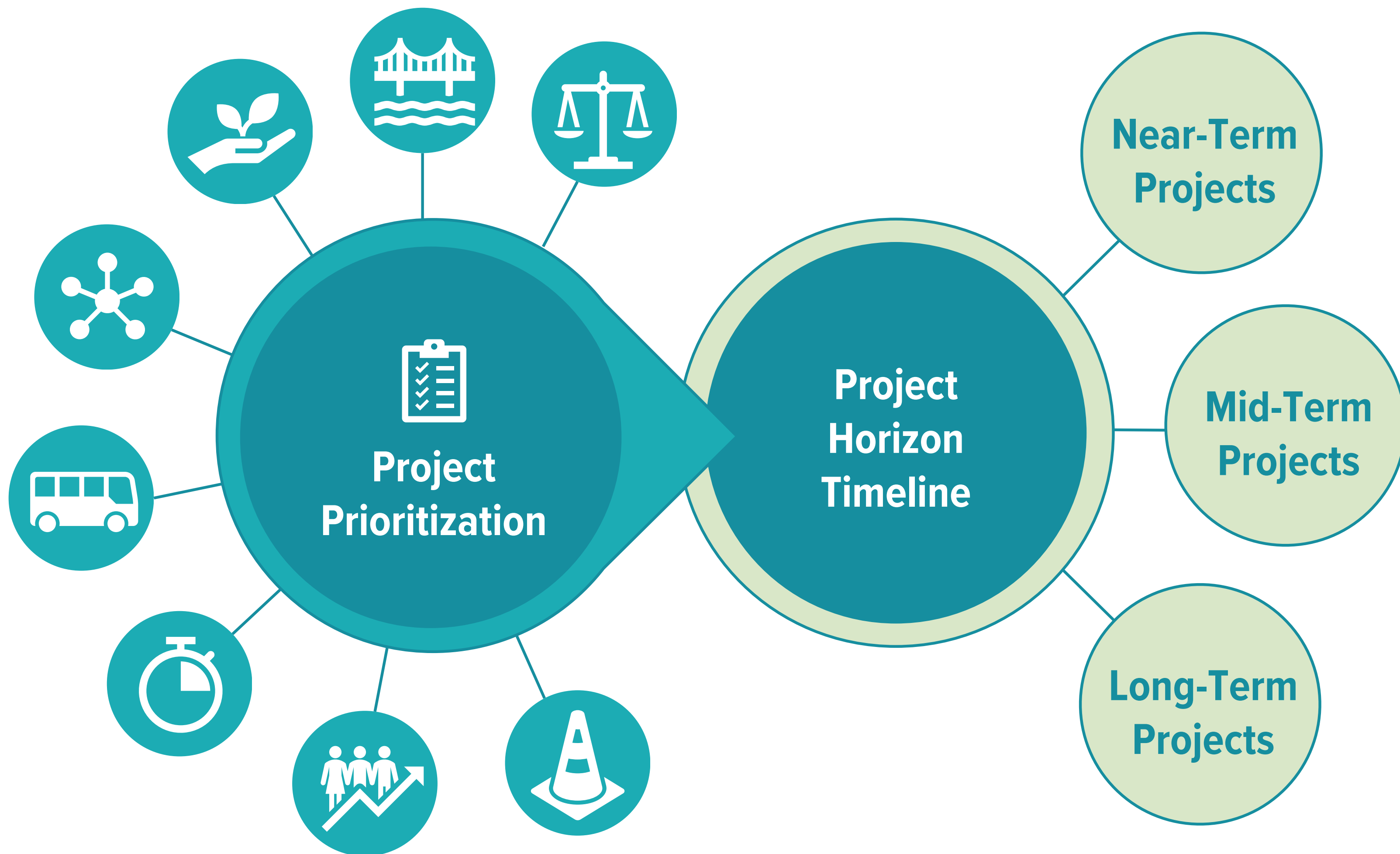




## PROJECT PRIORITIZATION

The recommendations in the Southeast Area Study Update are part of a long term vision that includes projects that may be constructed within the next 10 years and projects that likely would not be constructed until 2055 or later. While this collective vision attempts to address the many wants and needs across the Southeast Area, the reality is that there is limited funding available each year to make these recommendations a reality. Because of this, it's important to understand what the most desired, important, and time critical projects are so we know where to best invest our time, resources, and money.

### PRIORITIZATION PROCESS



### PRIORITIZATION CRITERIA

Each project addresses different needs and has different benefits; these benefits are shown in the Prioritization Criteria below. These are the criteria we will use to score our projects. We need to know which of these criteria are most important to you so we can identify our highest priority projects.



**Connect people and places**



**Ensure equity and participation**



**Promote and expand multimodal and affordable transit choices**



**Improve infrastructure condition and resilience**



**Manage congestion and system reliability**



**Protect the human and natural environment and minimize climate change**



**Stimulate inclusive economic vitality and opportunity**



**Promote safety, health, and well-being**

### PROVIDE YOUR FEEDBACK

Provide your feedback on project prioritization in your worksheet or [take the online survey!](#)



[seareastudyupdate.com](http://seareastudyupdate.com)

### INTRODUCTION

The Southeast Area Study (SEAS) is nearing the end of its two major phases. The project team is seeking feedback from the community on the draft set of recommendations for transportation improvements across the area and how to prioritize them.

Please take the following survey to provide your thoughts on potential roadway, bicycle, pedestrian, and transit improvements, along with the principles that will help identify high priority projects!

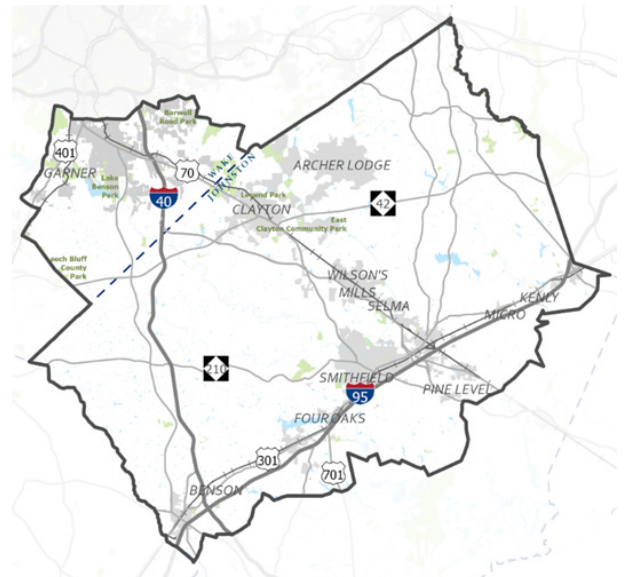
To read more about the project and take the [online version of this survey](http://www.seareastudyupdate.com), visit: [www.seareastudyupdate.com](http://www.seareastudyupdate.com)

The SEAS Update area includes Archer Lodge, Benson, Clayton, Four Oaks, Garner, Kenly, Micro, Pine Level, Selma, Smithfield, Wilson's Mills, and parts of Raleigh, Johnston County, and Wake County.

#### Which of the following describes you?

(Check all that apply.)

- I live or own personal property in the study area
- I work or go to school in the study area
- I own a business or commercial property in the study area
- I shop, dine, or recreate in the study area
- I drive through the study area
- I live, work, or go to school in Johnston County
- I live, work, or go to school in Wake County
- I have no relation to the study area
- I have no relation to the study area
- Other (please specify): \_\_\_\_\_

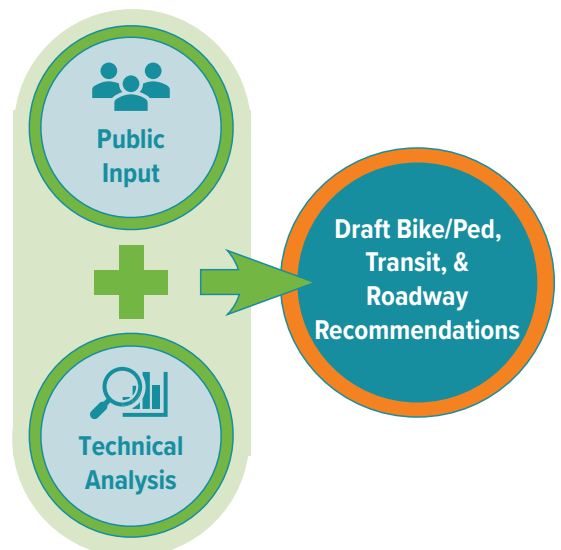


### HOW RECOMMENDATIONS ARE DEVELOPED

Over the past year, the study team has completed a lot of technical analysis and worked to incorporate the first phase of public input. Combined with feedback from stakeholders and staff from SEAS jurisdictions, an initial set of draft transportation improvements were developed.

### PROJECT PRIORITIZATION


Ultimately, the study will recommend a set of roadway, bicycle, pedestrian, and transit projects separated into short-, mid-, and long-term categories. The study team needs your help to identify the criteria that will be used to prioritize the draft set of projects.



**How important are each of the criteria below for selecting priority ROADWAY projects to recommend?** (On a scale of 1 to 10, with 10 being most important)

- Improve **Traffic Flow** by managing congestion and system reliability to make it easier to move within and across our region.
- Improve **Travel Safety** by reducing crashes, enhancing reliability and predictability, and improving emergency coordination.
- Improve **Active Transportation** by including walking and bicycling facilities.
- Improve **Access** by expanding affordable transit (public transportation) choices.
- Improve **Network Connectivity** by improving infrastructure condition and resilience
- Improve **Economic Vitality** by growing our economy by connecting residents to jobs, goods, services, and opportunities within and beyond our region.
- Improve **Sustainable Growth** by protecting the human and natural environment and minimizing climate change.
- Improve **Equity** by protecting transportation disadvantaged communities from disproportionately negative impacts.
- Improve **Freight Movement** by supporting the competitiveness of our region through a transportation network that efficiently moves goods and services.

**RECOMMENDATIONS**

Overview maps for the draft set of recommendations are located on the boards around the room. **Interactive online maps can be viewed here:** 




You can provide your comments in two ways:

1. Provide **general comments in the comment box below**
2. Provide **project-specific comments using the online interactive map at the QR code**

**Share any comments you may have regarding the draft set of projects, or the study in general, here:**

**HOW TO SUBMIT THIS SURVEY**

You have three options for submitting this survey, you can either:

1. **Hand** this survey to a member of the project team
2. Take the **online survey** instead at: [www.publicinput.com/seasrecs](http://www.publicinput.com/seasrecs) 
3. **Mail** this survey to: CAMPO - ATTN Gaby Lawlor  
One Fenton Main St., Suite 201  
Cary, NC 27511



**Thank you for participating in the second SEAS Update survey! A public feedback summary and the final draft of the study report will be posted to the project website later this year.**



### INTRODUCCIÓN

El Estudio del Área Sudeste (SEAS, por sus siglas en inglés) está llegando al final de sus dos fases principales. El equipo del proyecto busca comentarios de la comunidad sobre el borrador del conjunto de recomendaciones para mejoras de transporte en el área y cómo priorizarlas.

**¡Por favor llene la siguiente encuesta para proporcionar su opinión sobre posibles mejoras para carreteras, bicicletas, peatones, y tránsito, junto con los principios que ayudarán a identificar proyectos de alta prioridad!**

Para leer más sobre el proyecto y llenar la versión en línea de esta encuesta, visite:

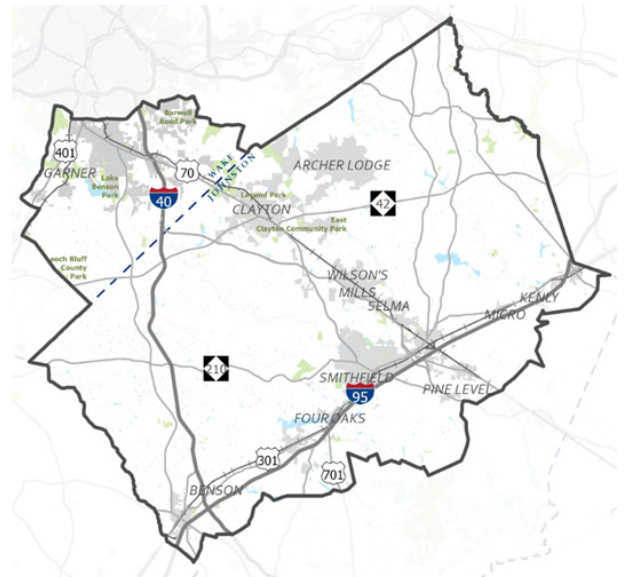
[www.seareastudyupdate.com](http://www.seareastudyupdate.com)

El área de Actualización de SEAS incluye Archer Lodge, Benson, Clayton, Four Oaks, Garner, Kenly, Micro, Pine Level, Selma, Smithfield, Wilson's Mills, y partes de Raleigh, Johnston County, y Wake County.

### ¿Cuál de las siguientes respuestas lo describe a usted?

*(Marque todas las que apliquen)*

- Vivo o tengo propiedad personal en el área de estudio
- Trabajo o voy a una escuela dentro del área de estudio
- Soy dueño de un negocio o propiedad comercial en el área de estudio
- Compró, cenó, o me divierto en el área de estudio
- Conduzco por el área de estudio
- Vivo, trabajo o voy a una escuela en Johnston County
- Vivo, trabajo o voy a una escuela en Wake County
- No tengo relación con el área de estudio
- Otra *(por favor especifíque)*: \_\_\_\_\_



### COMO SE DESARROLLAN LAS RECOMENDACIONES

Durante el año pasado, el equipo de estudio completó una gran cantidad de análisis técnicos y trabajó para incorporar la primera fase de comentarios públicos. En combinación con los comentarios de las partes interesadas y del personal de las jurisdicciones de SEAS, se desarrolló un conjunto inicial de borradores de mejoras al transporte.

### PRIORIZACIÓN DEL PROYECTO

Finalmente, el estudio recomendará un conjunto de proyectos para carreteras, bicicletas, peatones, y tránsito divididos en categorías a corto, mediano y largo plazo. El equipo de estudio necesita su ayuda para identificar el criterio que se utilizará para priorizar el borrador.



¿Qué tan importante es cada uno de los criterios a continuación para seleccionar proyectos ROADWAY y priorizar su recomendación? (En una escala del 1 al 10, siendo 10 el más importante)

- Mejorar el **Flujo de Tráfico** mediante la gestión de la congestión y la confiabilidad del sistema para que sea más fácil moverse dentro y a través de nuestra región.
- Mejorar la **Seguridad en los Viajes** al reducir los accidentes, mejorar la confiabilidad y la previsibilidad y mejorar la coordinación de emergencias.
- Mejorar el **Transporte Activo** al incluir instalaciones para caminar y andar en bicicleta.
- Mejorar el **Acceso** ampliando las opciones de tránsito asequible (transporte público).
- Mejorar la **Conectividad de la Red** al mejorar la condición y la resiliencia de la infraestructura.
- Mejorar la **Vitalidad Económica** haciendo crecer nuestra economía conectando a los residentes con trabajos, bienes, servicios y oportunidades dentro y fuera de nuestra región.
- Mejorar el **Crecimiento Sostenible** protegiendo el entorno humano y natural y minimizando el cambio climático.
- Mejorar la **Equidad** al proteger a las comunidades desfavorecidas en el transporte de impactos desproporcionadamente negativos.
- Mejorar el **Movimiento de Carga** apoyando la competitividad de nuestra región a través de una red de transporte que mueva eficientemente bienes y servicios.

**RECOMENDACIONES**

Los mapas generales para el borrador del conjunto de recomendaciones se encuentran en los tableros alrededor de la sala. **Los mapas interactivos en línea se pueden ver aquí** →



Puede proporcionar sus comentarios de dos maneras:

1. Proporcionar **comentarios generales** en la casilla de comentarios a continuación
2. Proporcionar **comentarios específicos al proyecto** utilizando el mapa interactivo en línea utilizando el código QR

Comparta algún **comentario** que pueda usted tener referente al borrador del conjunto de proyectos o el estudio en general, aquí:

**COMO ENVIAR ESTA ENCUESTA**

Tiene tres opciones para enviar esta encuesta, usted puede:

1. **Entregar** la encuesta a algún miembro del equipo del proyecto
2. O llenar la encuesta en línea en: [www.publicinput.com/seasenesp](http://www.publicinput.com/seasenesp) →
3. O **Enviar la encuesta** por correo a: CAMPO - ATTN Gaby Lawlor  
One Fenton Main St., Suite 201  
Cary, NC 27511



¡Gracias por participar en la encuesta de la segunda Actualización de SEAS! Un resumen de los comentarios del público y el borrador final del informe del estudio se publicarán en el sitio web del proyecto a finales de este año.

## Appendix D: Public Symposium Summary



D



# SEAS

S O U T H E A S T   A R E A   S T U D Y

## UPDATE

**What:** Public Symposium**When:** Thursday, June 22, 2023

SOT Orientation: 4pm - 5pm

Public Open House: 5pm – 7pm

**Where:** Garner Town Hall

## PUBLIC SYMPOSIUM

### Introduction

This document summarizes the Public Symposium held at Garner Town Hall on June 22<sup>nd</sup>, 2023. The meeting included a meeting orienting the Stakeholder Oversight Team (SOT) to the boards and public engagement materials, and a public open house to present and get public feedback on transportation recommendations, potential prioritization criteria, and possible tradeoffs. This summary provides an overview of the meeting and results.

### Summary

#### SOT Orientation

Held before the symposium was opened to the public, the SOT orientation introduced the Stakeholder Oversight Team to the boards and public engagement materials. 20 people attended the SOT orientation.

#### Public Symposium

12 members of the public signed in at the symposium.

#### LAND USE TRADE-OFFS

A board explained some of the tradeoffs of different development patterns and asked attendees to leave sticky notes indicating their preference for the future land use of the area. Most questions received five responses, three for Garner and two for Clayton.

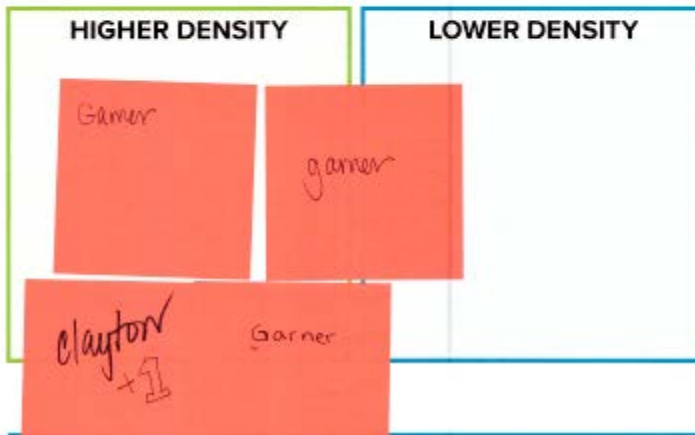
#### Density of Development

- **Two of three Garner responses** were placed in the middle to signify a **preference for moderate density**; the remaining response was in favor of higher density
- The two **Clayton responses** were in favor of **higher density**

### Density of Development

**Higher density** development increases the return on investment for public infrastructure and consumes less land but it can change the existing land use character.

**Lower density** development maintains existing low density character but requires more land and public infrastructure is more expensive on a per-person basis.



### Housing Types

- All responses for both Garner and Clayton were placed emphasizing a preference for **maximum range of housing**

### Housing Types

**A range of housing types** provides more options for a variety of households, and increases the potential for more affordable housing.

**A focus on single-family homes** maintains single family character but doesn't meet a variety of household needs and can lead to suburban sprawl.



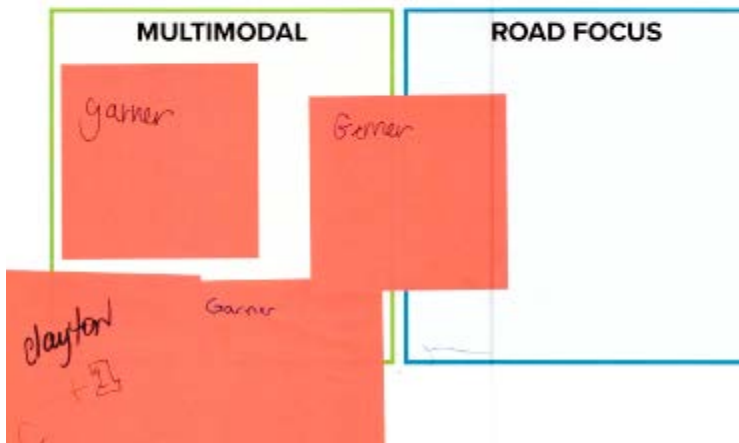
## Transportation Options

- **Two of three Garner responses** were in favor of a **preference for multimodal transportation**; the remaining response was placed in the middle to signify a preference for a balance between multimodal and roadway
- The two **Clayton responses** were in favor of **multimodal transportation**

### Transportation Options

**Multimodal** transportation includes people walking, biking, taking transit, and driving. This increases people's options for how they choose to travel to work, school, and everywhere else.

**Road-focused** transportation limits people's choices and does not offer recreational transportation options.



## Utility Expansion

Unlike the prior three, this trade-off question received four Garner responses and no Clayton responses.

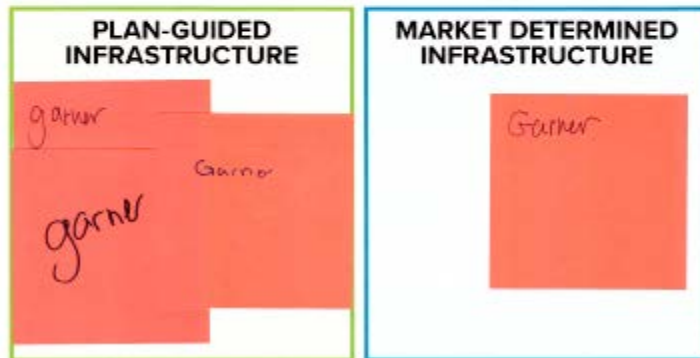
- **Three of four Garner responses** were in favor of plan-guided infrastructure; the remaining response was in favor of market determined infrastructure



## Utility Expansion

**Plan-guided infrastructure** identifies targeted areas for growth and plans for infrastructure in those areas. This helps with funding and investment planning.

**Market determined infrastructure** lets development guide where infrastructure is extended. This can lead to sprawl and less efficient infrastructure and utilities.



## SURVEY

Only one in-person survey was completed. While the single response cannot be considered representative, it is included here for completeness. Other survey responses were submitted online. The summary of the online survey results is available in Appendix E.

Of the one received in-person survey, **criteria for selecting priority roadway projects** were ranked in order of importance as follows:

1. Improve **Traffic Flow**
2. Improve **Active Transportation**
3. Improve **Travel Safety**
4. Improve **Equity**
5. Improve **Economic Vitality**
6. Improve **Network Connectivity**
7. Improve **Access**
8. Improve **Sustainable Growth**
9. Improve **Freight Movement**

The respondent also left a comment emphasizing the need for all new and improved facilities to include walking infrastructure so people can cross roads and bridges safely, as well as expressing support for more safety and traffic calming features and continuing to expand the transit network.

The respondent indicated that they lived, shopped, dined, and recreated in the study area, drove through the area, and lived, worked, or went to school in Wake County.

## DEMOGRAPHIC CARDS

Of the six received responses:

- 5 had English as a primary language and spoke and read English fluently
- 5 were 25-64 years old (1 did not select an age range)
- 4 attendees identified as men, 1 identified as a woman (1 did not select a gender)
- 1 attendee was disabled
- 2 attendees represented a minority race or 2+ races
- 3 respondents heard of the outreach event through an email from CAMPO, 3 heard through another organization's email, and 1 attendee heard through Social Media.

## Attachment 1 | Attendance List (SOT Orientation)

First Name	Last Name	Agency	SEAS Role
<i>Xuan</i>	<i>Wu</i>		
<i>Gaby</i>	<i>Lontos-Lawlor</i>	<i>CAMPO</i>	<i>Project Team</i>
<i>Crystal</i>	<i>Odum</i>	<i>CAMPO</i>	<i>Project Team</i>
<i>Shelby</i>	<i>Powell</i>	<i>CAMPO</i>	<i>Project Team</i>
<i>Alex</i>	<i>Rickard</i>	<i>CAMPO</i>	<i>Project Team</i>
<i>Matt</i>	<i>Day</i>	<i>Central Pines Regional Council (TJCOG)</i>	<i>SOT</i>
<i>Matthew</i>	<i>Burns</i>	<i>City of Raleigh</i>	
<i>Alicia</i>	<i>Thomas</i>	<i>City of Raleigh</i>	
<i>Emily</i>	<i>Gvino</i>	<i>Clarion</i>	<i>Project Team</i>
<i>Ben</i>	<i>Howell</i>	<i>Clayton</i>	<i>CTT</i>
<i>Patrick</i>	<i>Pierce</i>	<i>Clayton</i>	<i>CTT</i>
<i>Kathy</i>	<i>Behringer</i>	<i>Garner</i>	<i>SOT</i>
<i>Ken</i>	<i>Marshburn</i>	<i>Garner</i>	<i>SOT</i>
<i>Jeff</i>	<i>Triezenberg</i>	<i>Garner</i>	<i>CTT</i>
<i>Samantha</i>	<i>Borges</i>	<i>Kimley-Horn</i>	<i>Project Team</i>
<i>Allison</i>	<i>Fluitt</i>	<i>Kimley-Horn</i>	<i>Project Team</i>
<i>Stephanie</i>	<i>Richter</i>	<i>Micro</i>	<i>CTT</i>
<i>James</i>	<i>Salmons</i>	<i>NCDOT-Div 4</i>	<i>CTT</i>
<i>Chloe</i>	<i>Ochocki</i>	<i>Triangle Land Conservancy</i>	<i>SOT</i>
<i>Kim</i>	<i>Johnson</i>	<i>Triangle Transportation Choices</i>	<i>SOT</i>



## Appendix E: Public Survey Summary



E

# SEAS

S O U T H E A S T   A R E A   S T U D Y

## UPDATE

### Public Survey No. 2

Open: June 16<sup>th</sup> to July 16<sup>th</sup>, 2023

Focus: Draft Modal Recommendations and Prioritization

# SURVEY RESULTS SUMMARY

## Introduction

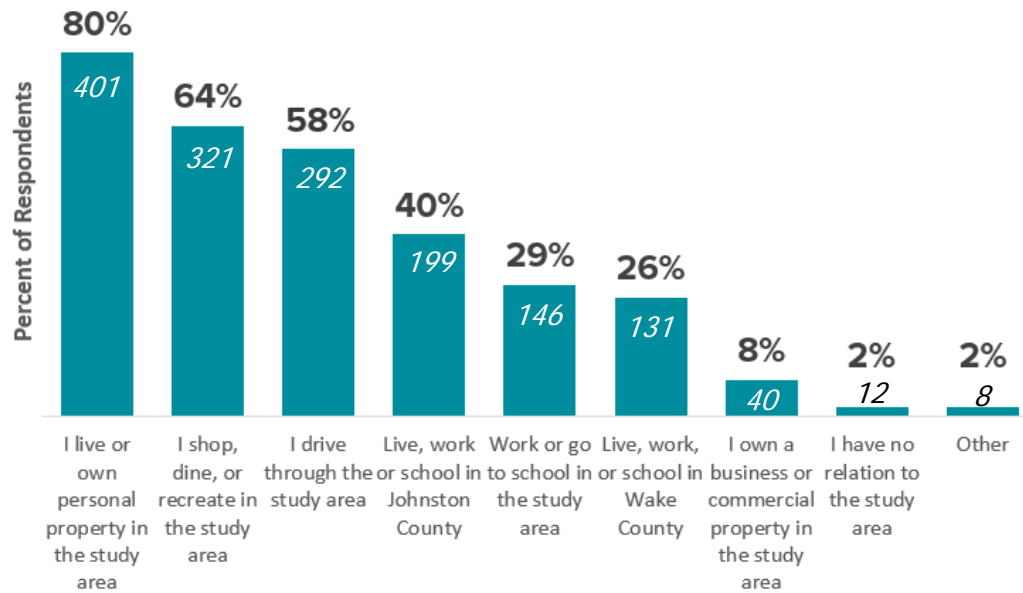
As part of the process of developing the Southeast Area Study Update, an online survey was used to gain public feedback. The survey ran from June 16<sup>th</sup>, 2023 to July 16<sup>th</sup>, 2023. **501 individuals participated**, commenting on draft bicycle and pedestrian, transit, and roadway/intersection recommendations and answering questions about what they saw as important to prioritize. The survey included a mapping component that invited respondents to leave comments on specific transportation projects, and a final question invited respondents to leave open-ended comments if desired. A total of **139 general comments** from 130 unique commenters were received, in addition to **118 project specific map comments**.

## Contents

- Introduction ..... 1
- Demographics..... 2
- Priorities..... 4
- General Comments..... 5
- Interactive Maps..... 6
  - Bicycle and Pedestrian ..... 6
  - Intersections ..... 7
  - Transit ..... 8
  - Roadway..... 9

## Demographics

WHICH OF THE FOLLOWING DESCRIBES YOU? (SELECT ALL THAT APPLY).



500 people responded.

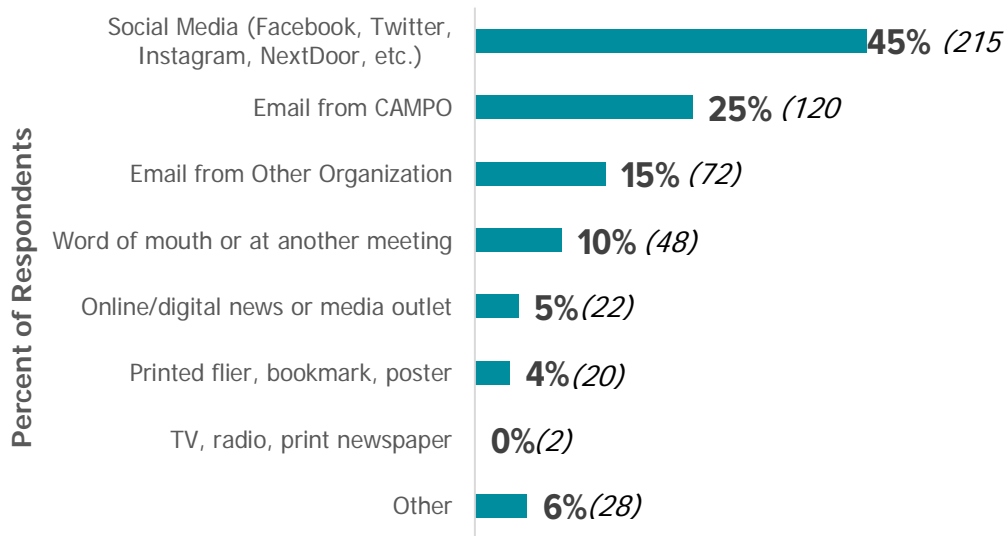
SELECT ALL OF THE OPTIONS BELOW THAT APPLY TO YOU.

- My primary language is English or I speak and read English well | **94%** (453)
- I am 17 years old or younger | **1%** (5)
- I am 18-24 years old | **2%** (11)
- I am 25-64 years old | **73%** (354)
- I am 65 years old or older | **21%** (100)
- I identify as a woman | **47%** (225)
- I identify as a man | **36%** (172)
- I identify as non-binary or other gender | **0%** (2)
- I am or am considered to be disabled | **3%** (11)
- Five (5) or more people live in my household | **8%** (39)
- My household's total income is at or under \$53,000 per year | **11%** (53)
- I am of Hispanic, Latino, or Spanish origin of race | **3%** (16)
- I represent a minority race or 2+ races (African-American, Asian, South Asian, American Indian, Alaska Native, Middle Eastern, Hawaiian, Pacific Islander) | **10%** (47)

482 people responded.



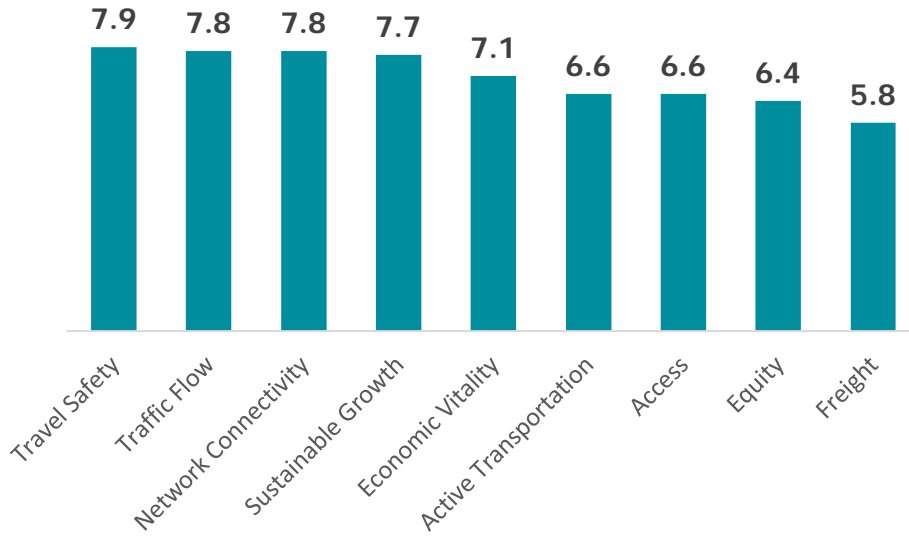
HOW DID YOU HEAR ABOUT THIS SURVEY? SELECT ALL THAT APPLY.



480 people responded.

## Priorities

HOW IMPORTANT ARE EACH OF THE CRITERIA BELOW FOR SELECTING PRIORITY ROADWAY PROJECTS TO RECOMMEND? (SCALE OF 1 TO 10 WITH 10 BEING MOST IMPORTANT)



# General Comments

SHARE ANY COMMENTS YOU MAY HAVE REGARDING THE DRAFT SET OF PROJECTS, OR THE STUDY IN GENERAL, HERE:

Comments focused primarily on the following:

## Roadway/Intersection

- Widenings and new connections sometimes concern the public due to the potential for decreased safety and environmental impacts
  - Some new location connections faced opposition due to the risk of adding more fast moving through traffic into local communities posing safety risks to people living and playing along the route
  - Widenings also faced opposition for safety reasons, concerns about more lanes and faster traffic.
  - Other new location roadways or roadway widenings faced opposition due to concern of environmental impacts on parks, natural areas, and wetlands
- Minimize or deprioritize widenings if intersection improvements, modernization, and transit alternatives can help resolve most issues
- Prioritize intersections that are unsafe or confusing and intersections that are regional congestion points
  - Several intersections noted as priorities were either actively unsafe or caused significant backups or other needs/issues that caused additional backups
- Prioritize improvements to major regional corridors and connections that improve access between towns and across the study area

## Bike/Ped

- Greenways should be carefully planned with natural environment to maximize usefulness and minimize environmental impact
- Greenways and shared use paths should minimize harm to wetlands, riparian buffers, etc
- Provide bike and pedestrian crossing improvements for crossing dangerous roads, connecting key neighborhoods, or accessing key destinations like schools and parks
  - Crossings in communities divided by large thoroughfares, especially with destinations like shopping centers
  - Improve crossings at dangerous intersections where they do exist
- Continue to provide additional alternative connections to major greenways from different neighborhoods for regional connectivity that allows greenways to be used both recreationally and occupationally for commuting
- Add or widen paved shoulders on narrow country roads for safety

## Transit

- Transit has strong support, but strong public desire for public transit beyond just the US 70 Corridor
  - NC 50 noted specifically

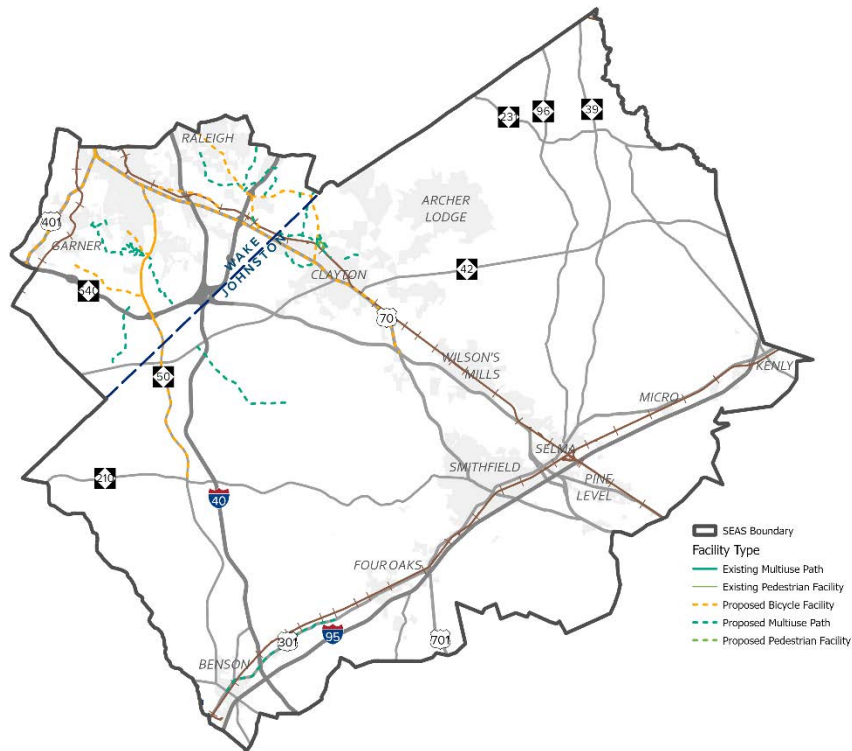


# Interactive Maps

## BICYCLE AND PEDESTRIAN

**40 comments received**

The following map shows all bicycle and pedestrian projects that received project-specific comments through the interactive maps.



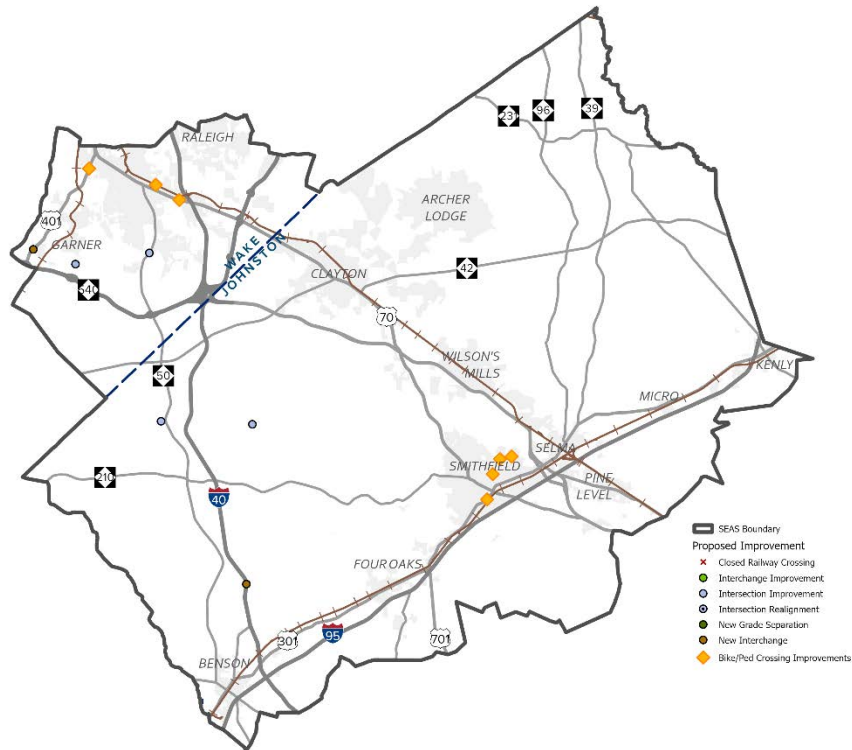
Comments focused primarily on the following:

- Support for paths/connections following or parallel to major corridors
  - US 70/Garner Road, NC 50, US 401
- Support for alternative greenway paths connecting Clayton, Garner, and SE Raleigh/SE Wake to Neuse River Greenway
- Support for more direct greenway connections to Clayton downtown
- Support for paths around Lake Benson
- Suggested project tweaks for safety and support for projects that address safety concerns
  - Avoiding having greenways cross roadways at dangerous curves
  - Providing facilities or shoulders along narrow winding roads
    - Rock Quarry Road, Old Baucom Road
  - Providing alternatives to dangerous underpasses
    - Path avoiding railway bridge underpass in Downtown Clayton with no shoulders
- Mitigating environmental impact

## INTERSECTIONS

### 13 comments received

The following map shows all intersection projects that received project-specific comments through the interactive maps.



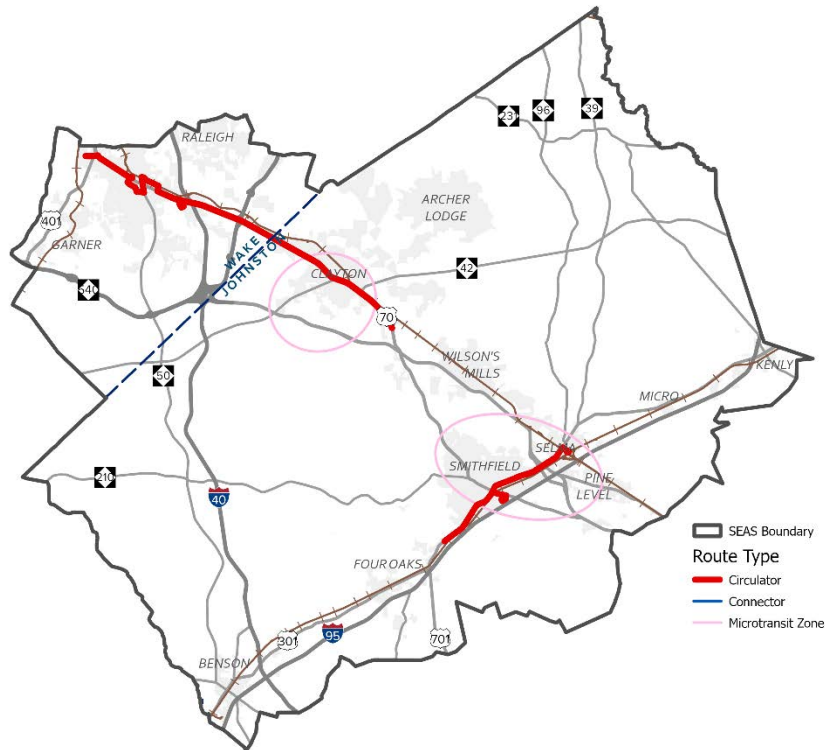
Comments focused primarily on the following:

- Support for improving confusing intersections
- Support for safe pedestrian connections to schools
- Need for safe pedestrian crossings in areas with neighborhoods and community assets like shopping, etc
  - US 401 near Garner Station noted specifically
- Places in need of signal timing fixes
- Pedestrian connections across the railroad

## TRANSIT

### 7 comments received

The following map shows all transit projects that received project-specific comments through the interactive maps.



Comments focused primarily on the following:

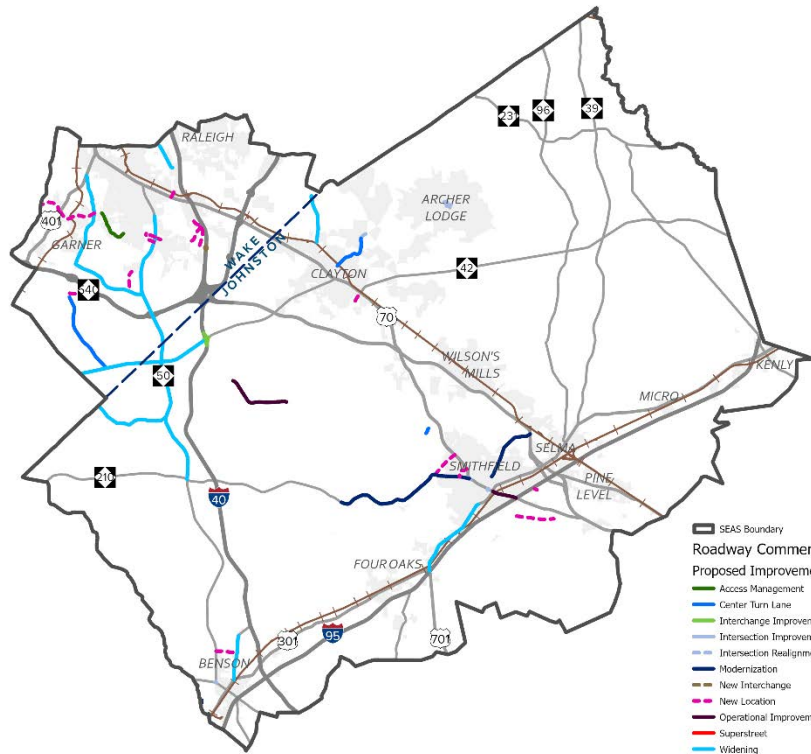
- Connecting Clayton and Smithfield
- Need for connections to key destinations
  - Clayton Walmart, Downtown Smithfield, Johnston Community College, Johnston UNC Health
- Desire for connections from Smithfield to McGee's Crossroads and 40-42
- Need to include other major corridors
  - US 401, NC 50, Old Stage



## ROADWAY

## 58 comments received

The following map shows all roadway projects that received project-specific comments through the interactive maps.



Comments focused primarily on the following:

- Support for intersection and interchange improvements
- Safety concerns and opposition to projects that would add additional fast-moving traffic to residential neighborhoods
  - Arbor Greene area
- Requests for better access management on major roads like Market Street, US 301, US 70 Business
- Opposition to some widenings
  - Corridors that didn't see enough traffic to warrant widening
  - Areas where widenings raised safety concerns
- Support for most new connections, but concerns in some areas of encouraging sprawl
- Emphasis on need for improvement along NC 50, NC 210

**B**

**SEAS**

S O U T H E A S T   A R E A   S T U D Y

**U P D A T E**

# **APPENDIX B:**

## Land Use Implementation Toolkit

# Evaluation of 2017 SEAS: Land Use Strategy Implementation

## Introduction

In the fall of 2022, an assessment was conducted of the SEAS communities' plans and regulatory codes. The results are visually summarized in the matrix below. The assessment evaluated the progress of each community toward achieving the strategies recommended in the 2017 SEAS, organized by Highest Priority versus Strategies for Important Consideration.

This assessment was presented to the Core Technical Team in January, where the 2017 SEAS implementation status and current planning issues were discussed. Several follow-up meetings were conducted with jurisdictions to confirm the status of implementation and discuss planning issues in the spring of 2023. Finally, recommendations and new planning ideas for the Toolkit were developed for individual communities in the summer of 2023. To review these recommendations, please see Chapter 4.

## 2017 Evaluation Matrix

	Comprehensive Plan	Zoning	Allow Higher Densities	Encourage Lower Densities/ Preservation	Corridors	Mixed Use	Downtown	Housing	Building Re-Use	Area Plans	Interlocal	Design	Freight	Parking	Connect	CIP	Blue-Ped	Economic Development
Johnston County	X	X	X		X			X		X		X	X			X	X	X
Archer Lodge	X	X	X	X		X		X					X				X	
Clayton	X	X	X			X	X	X	X				X	X	X	X	X	X
Wilson's Mills	X	X	X			X		X					X	X	X	X	X	X
Seima	X	X	X			X	X	X	X	X			X	X	X	X	X	X
Smithfield	X						X	X	X				X	X	X	X	X	
Four Oaks	X		X			X	X	X	X		X		X	X	X	X	X	X
Benson	X	X	X			X	X	X	X				X		X		X	X
Micro		X	X			X		X					X					
Kenly	X	X				X							X			X		
Wake County	X							X		X	X	X	X	X	X			X
Gamer	X	X	X			X	X		X				X	X	X		X	X
Raleigh			X					X		X		X	X	X	X	X		X
Pine Level	X	X											X					

	2017 SEAS Highest Priority Strategy for Consideration
	2017 SEAS Important Consideration Strategy
X	Progress made since 2017 SEAS



# Summary of Community Accomplishments

Progress has been made in all SEAS communities to implement the 2017 SEAS recommendations. Nine communities updated or are currently updating their land development regulations or codes at the time of this writing. Twelve communities adopted or are currently adopted new comprehensive plans as of this writing.

- Archer Lodge updated their land development regulations in 2022.
- Benson adopted a comprehensive plan in 2021 and is currently working on updating their land development regulations.
- Clayton adopted the 2045 Comprehensive Growth Plan in 2021 and is currently updating their land development regulations.
- Four Oaks adopted the Downtown Streetscape Master Plan and Economic Development Assessment in 2020.
- Garner adopted the Garner Forward Comprehensive Plan in 2018 and updated their land development regulations in 2022.
- Micro adopted their Comprehensive Land Use Plan in 2019 and updated land development regulations in 2021.
- Pine Level updated their land use regulations in 2021 and adopted a land use plan in 2022.
- Selma adopted the 2040 Comprehensive Land Use Plan in 2021.
- Smithfield adopted the Smithfield Town Plan in 2019.
- Wilson's Mills adopted their 2040 Comprehensive Land Use Plan and a new Development Ordinance in 2019.
- Raleigh has adopted small area plans for Cameron Village and Hillsborough Street, Midtown-St Albans, and Falls North as well as the Raleigh Strategic Plan and the Downtown Plan.
- Johnston County is currently in the process of adopting the Envision Johnston - 2040 Comprehensive Land Use Plan.
- Wake County adopted their comprehensive plan, PlanWake, in 2021, as well as the Lower Swift Creek Area Plan in 2022.

## Evaluation of 2017 Recommendations by Community

### Archer Lodge

#### *Report on Highest Priority Strategies*

- **Comp Plan/Adjust LUP:** Archer Lodge is in the process of adopting a new comprehensive plan, including a new future land use map (FLUM).
- **Adjust Zoning:** Archer Lodge's new Unified Development Ordinance (UDO) was adopted in the summer of 2021. The town's UDO represented a comprehensive update of its zoning code and has been amended several times since its recent adoption.
- **Less Dense:** Carried forward into the 2023 SEAS recommendations for important consideration, as Archer Lodge can adjust regulations to further protect environmental and agricultural resources.
- **Bicycle and Pedestrian Requirements:** Carried forward into the 2023 SEAS recommendations as Archer Lodge can further adjust policies and regulations to support bicycle and pedestrian infrastructure.

#### *Report on Strategies for Important Consideration*

- **Allow Higher Densities:** As noted above, the town is still in the process of adopting a new comprehensive plan, which will include a new future land use map (FLUM). It is expected that specific changes to the map will be available in the comprehensive plan update.
- **Encourage Mixed-Use:** Archer Lodge's new UDO includes multiple districts that allows for a mix of uses (with restrictions) such as the office and institutional (OI) and neighborhood business (NB) districts. These districts will likely be included in the updated comprehensive plan. For example, the OI district allows for townhouses and multi-family buildings along with duplexes in addition to office uses. Archer Lodge could advance this implementation with a points-based or incentive system to allow for a reduction in performance standards seen in the updated UDO.
- **Range of Housing:** Archer Lodge's UDO allows for a range of housing types, including a mix of unit and use types in select districts. The town's Planned Development (PD) district allows for more flexibility in the range of housing types than other districts; planned developments may not be developed in the Agricultural (AR) or Single Family Residential (SFR)-1 districts.

### Benson

#### *Report on Highest Priority Strategies*

- **Encourage Mixed-Use:** The 2021 comprehensive plan's future land use map (FLUM) includes a new Mixed-Use Junction (MUJ) category. The current UDO does not include a Mixed-Use Junction zoning district. The MUJ category is centered around I-40 and US 242. The Town Center (TC) category includes the potential for a mix of uses (apartments above stores). However, because it is guided towards the current code's B-1 district (which does not allow residential uses), a UDO update may be required for it to be formally utilized. Benson can advance this strategy by updating to UDO to include the mixed-use districts or including a points-based or other incentive system to allow for a reduction in performance standards.
- **Building Re-Use:** Neither the 2021 plan nor the code discuss adaptive reuse, nor do they call out types of flexibility related to redevelopment standards. This was carried forward into the strategies for important consideration.

- **Coordinate with Economic Development Plans:** The 2021 plan references the 2017 Benson Economic Development Strategic Plan, and “Increasing Quality Economic Development” is the third goal identified in the plan. There are a number of related action items within the plan, beginning on page 49. The plan notes that a follow-up study focusing on a couple specific outcomes was completed in 2019 as well.

### *Report on Strategies for Important Consideration*

- **Comp Plan/Adjust LUP:** The Town of Benson adopted their new Comprehensive Plan in November 2021.
- **Adjust Zoning:** Benson is currently in the process of updating their Unified Development Code (UDC). Benson anticipates adopting the final UDC in October 2023.
- **Allow Higher Densities:** The 2021 plan’s future land use map (FLUM) allows density flexibility in three categories: single-family home construction in the Medium Density Residential (MDR) district; High Density Residential (HDR) district allowing townhomes, condos, apartment complexes, and “similar” residential development; and the Town Center district allows for traditional downtown residential uses above commercial storefronts, which is a form of slightly higher density. The formal zoning districts may change pending updates to the UDO. Under current zoning, denser development is allowed in the R-6 district, along with being allowed in PD/PUD residential and mixed-use projects, and potentially under conditional zoning as well. The R-11 district allows for some denser development under certain circumstances. The current R-6 and R-11 districts allow for no more than 10 units/acre, but do allow for townhouses, apartments, and upper-story residential units.
- **Downtown Strategies:** Benson’s 2021 comprehensive plan has specific guidance for their downtown, prioritizing walkable residential growth, street interconnectedness, and encouraging development in the Town Center land use category. Other downtown-specific guidance in the comp plan includes a formal goal to “Keep Downtown and the Historic District Viable, Quaint, and Thriving.” Land use Action Item 2 (p. 54) seeks to encourage more mixed-use residential development downtown.
- **Range of Housing:** Some land use categories and/or zoning districts in the 2021 plan allow for a mix of unit and housing types. Unit types other than single-family detached are allowed as a Major Special Use (MSU) as opposed to a Permitted use. The R-11 and R-16 districts (allowed as an MSU) include duplexes, townhomes, apartments, and upper-story residential. Density cannot be higher than 10 units/acre anywhere under the current code; Planned Development (PD) districts and conditional zoning districts may allow for greater flexibility. Benson can advance this planning strategy by including a range of housing in the UDC update.
- **Interlocal Agreements:** An interlocal agreement is carried forward as a 2023 recommendation under important consideration for Benson.
- **Freight Movement Areas:** Benson is within the area covered by the 2018 Triangle Regional Freight Plan, which provides a comprehensive look at freight conditions, trends, capacity, and future development, and goals for the greater Research Triangle region. Benson also developed a Community Transportation Plan (CTP) in 2019, which contains a detailed discussion of freight mobility, centered around the town’s desire to address truck traffic on NC Highway 50.
- **Adjust Parking Requirements:** The Town of Benson Parking Study (2018) found a large surplus of parking in the downtown area. Recommendations in the Parking Study included increasing the current parking system’s efficiency, discouraging the development of new private commercially owned lots downtown, and improving ADA and bicycle/pedestrian accessibility. Benson can advance this planning strategy by adjusting parking requirements in their code.



- **Connect Streets:** The 2021 plan highlights key recommendations from the town’s **2019 CTP**. The plan emphasizes street interconnectedness and suggests requiring interconnection between subdivisions and stub streets to land-locked parcels in the future (currently in-progress) UDO update.
- **Bicycle and Pedestrian Requirements:** The 2021 comprehensive plan highlights key bicycle and pedestrian-related recommendations from the town’s 2019 CTP. These recommendations include adding bicycle and pedestrian connections in general, creating a bicycle and pedestrian plan, with an emphasis on connecting adjoining residential neighborhoods to downtown, and using GIS to map the town’s existing, planned, and needed bicycle and pedestrian networks. There is also a mention of creating connections to regional trails by creating a town-level greenway/trail network.
- **Coordinate with CIP:** Capital improvement planning and growth-guided infrastructure is carried forward as a high priority recommendation for Benson.

## Clayton

### *Report on Highest Priority Strategies*

- **Allow Higher Densities:** Clayton’s 2045 Comprehensive Growth Plan includes an updated FLUM with several categories that allow for denser development. This includes the Medium Density Residential (MDR) and High Density Residential (HDR) categories. There are also multiple other categories that allow for medium to high residential densities. The downtown Support (DS) Downtown Core (DC), Neighborhood Center (NC) and Community Center (CC) districts all allow for medium to high residential (and commercial) densities; this includes multifamily housing and mixed-use development in some districts. The DC district allows the highest residential densities. The Downtown Neighborhood (DN) permits some “house-scale multifamily and townhomes.”
- **Encourage Mixed-Use (Criteria 1):** Clayton’s 2045 Comprehensive Plan encourages mixed-uses and higher densities in a number of different districts as outlined on the future land use map (FLUM) map, with a particular emphasis on encouraging mixed-use development in the DC district. Clayton’s UDO includes residential and mixed-use districts that allow denser development, as outlined in the FLUM. In the UDO, there is a new Mixed-Use (MXD) district that allows mixed-uses by right; the MXD district description includes a focus on compact, more urban-style design and elements, as opposed to suburban density and design. Clayton can advance this planning strategy by considering a points-based or incentive system to allow for a reduction in performance standards, which aligns with the 2045 Comprehensive Plan recommendation for mixed-use developments downtown.
- **Parking:** Adjusting parking requirements is carried forward as a 2023 recommendation under important consideration for Clayton.
- **Coordinate with CIP:** The 2045 Comprehensive Plan includes a strategy (8.1.3, p. 59) that suggests the town “incorporate facilities needs into future budgets and the Capital Improvement Plan.” Capital improvement planning and growth-guided infrastructure is carried forward as a high priority recommendation for Clayton.

### *Report on Strategies for Important Consideration*

- **Comp Plan/Adjust LUP:** The Town of Clayton adopted its 2045 Comprehensive Plan in November 2021. This modern plan articulates a clear vision for Clayton’s future, one that includes taking steps to manage the area’s high level of growth and development and addressing both infrastructural and cultural needs.
- **Adjust Zoning:** Clayton is currently updating its Unified Development Ordinance (UDO), with completion expected later in 2023. The final annotated outline of the UDO was made available on the Codify Clayton website in October of 2022, and represents a close to final version of what the updated UDO will look like.

- **Encourage Lower Densities/Preservation:** A Low Density Residential (LDR) district is included in the FLUM and the draft UDO. It is meant to support and create traditional low-density, suburban-style development and includes a provision for the preservation of open space.
- **Downtown Strategies:** The 2045 Comprehensive Plan has detailed strategies and policies designed to help support and grow Clayton’s downtown while maintaining its historic aspects. For example, Goal 3 of the plan’s economic development section includes six strategies specific to downtown Clayton.
- **Range of Housing:** The 2045 Comprehensive Plan and updated FLUM include several districts that allow for a mix of unit and housing types, including the conditional zoning districts that may allow for more flexibility and mixing of unit types. In their code, Clayton’s HDR district allows for SF detached homes, townhomes, and apartments; the DS district allows for many unit types in addition to the HDR district and with higher density single family homes, along with apartments, mixed-use buildings with live/work units.
- **Building Re-Use:** The 2045 Comprehensive Plan includes Policy LU 2.1. (p. 25) which calls for encouraging “redevelopment or adaptive reuse of under-utilized commercial development.” The plan also has a encourages the reuse of historic structures in the downtown district.
- **Adjust Parking Requirements:** The 2045 Comprehensive Plan has recommendations to consider modifying the town’s parking requirements. The plan’s downtown section includes recommendations to compare Clayton’s downtown parking requirements (for residential uses) to peer towns’ requirements, in order to use parking as efficiently as possible. There is also a strategy (DT 1.3.5, p. 33) that lists a “parking requirement reduction” as a potential mechanism to bolster downtown redevelopment efforts. Clayton can advance this planning strategy by adjusting parking requirements in their land use regulations, and this is carried forwarded as a strategy for important consideration.
- **Connect Streets:** The 2045 Comprehensive Plan includes policies about street connectivity. The current code includes a brief mention of certain pedestrian connection requirements through cul-de-sacs when key destinations or transportation corridors are nearby. This strategy is carried forward as a priority for important consideration, as Clayton can update their land use regulations to improve connectivity.
- **Bicycle and Pedestrian Requirements:** Clayton completed its first-ever Pedestrian Plan in 2022. The 2045 plan and draft UDO both specify pedestrian-related policies. The 2045 plan names policies specific to bicycle-related improvements. This strategy is carried forward as a priority for important consideration, as Clayton can update their land use regulations to support bicycle and pedestrian infrastructure and update their Comprehensive Bike Plan (2006).
- **Coordinate with Economic Development Plans:** The 2045 Comprehensive Plan coordinates an economic development policy with their 2020 Strategic Economic Development Plan, including supporting downtown as an economic asset.

## Four Oaks

### *Report on Highest Priority Strategies*

- **Encourage Mixed-Use:** Four Oaks completed a Land Use Plan Analysis and Update in May 2022; this document is not an update of their previous plan, but instead a pre-study (some public engagement and demographic analysis occurred) that examined three possible scenarios for the town’s future land use. Two of the three future land use scenarios outlined included a mixed-use district. Encouraging mixed-use is carried forward as a high priority in the 2023 recommendations for Four Oaks.

- **Coordinate with Economic Development Plans:** Four Oaks' Economic Development Assessment was published in January 2020. The Assessment contains existing economic conditions information, a section on public engagement and idea-gathering, a vision section, and recommendations. Appendices include a SWOT analysis and a retail market analysis, with a market snapshot and a look at retail sales leakage/surplus.
- **Building Re-Use:** Encouraging building reuse is carried forward as a 2023 recommendation under important consideration for Four Oaks.

### *Report on Strategies for Important Consideration*

- **Comp Plan/Adjust LUP:** Four Oaks completed a Land Use Plan Analysis and Update (LUPAU) in May 2022; this document is not an update of their previous plan, but instead a pre-study (some public engagement and demographic analysis occurred) that examined three possible scenarios for the town's future land use. This analysis represents Phase I of the town's updated plan; an upcoming Phase II will cover more extensive engagement, vision/goals and policy recommendations, and a decision on which of the three land use scenarios to adopt and incorporate into an updated FLUM. Updating the comprehensive plan is carried forward as a high priority in the 2023 recommendations for Four Oaks.
- **Adjust Zoning:** Adjusting zoning or updating land use regulations is carried forward as a high priority in the 2023 recommendations for Four Oaks.
- **Allow Higher Densities:** One of the three future land use map (FLUM) scenarios in the LUPAU is a "Smart Growth" scenario, which would aim to centralize growth and have a larger area of the town designated as mixed-use. Four Oaks can advance this by adjusting zoning district requirements to allow for denser development.
- **Downtown Strategies:** Four Oaks' Downtown Streetscape Master Plan was completed in 2020. This plan provides a comprehensive look at how best to update the pedestrian and built environment and aesthetic appeal of the downtown area in Four Oaks. It focuses on plans for sidewalk improvements (like extending and widening sidewalks), more outdoor restaurant spaces, greenery, and a new pedestrian square.
- **Range of Housing:** Based on recommendations in the LUPAU, it is likely that there will be a discussion about the mix of unit types allowed in certain land use categories while Phase II of the plan is developed. Encouraging a range of housing is carried forward as a 2023 recommendation under important consideration for Four Oaks.
- **Interlocal Agreements:** Developing interlocal agreements is carried forward as a 2023 recommendation under important consideration for Four Oaks.
- **Adjust Parking Requirements:** Adjusting parking requirements is carried forward as a 2023 recommendation under important consideration for Four Oaks.
- **Connect Streets:** The downtown plan and the LUPAU call for a connected downtown for both motorized and non-motorized transportation. Encouraging street connectivity is carried forward as a 2023 recommendation under important consideration for Four Oaks.
- **Coordinate with CIP:** Capital improvement planning and growth-guided infrastructure is carried forward as a 2023 recommendation under important consideration for Four Oaks.
- **Bicycle and Pedestrian Requirements:** Four Oaks has a focus on improving walkability and the pedestrian experience in the downtown area. Four Oaks can advance this topic by expanding policies to include bicycle infrastructure. Encouraging bicycle and pedestrian infrastructure is carried forward as a 2023 recommendation under important consideration for Four Oaks.



# Garner

## *Report on Highest Priority Strategies*

- **Comp Plan/Adjust LUP:** The Town of Garner adopted their **Garner Forward Comprehensive Plan** in December 2018.
- **Encourage Mixed-Use:** Several of Garner’s zoning districts allow for a mix of uses: the two formal mixed-use districts—MX-A and B—established in the town’s new 2022 UDO, along with the Commercial Mixed-used (CMX), Neighborhood Mixed-use (NMX), Activity Center (AC), and Traditional Business (TB) districts. One of the housing-related recommendations in the Garner Forward Comprehensive Plan was to help support affordable housing development through “development incentives such as density bonuses.” Garner can advance this recommendation by including it in a UDO update.
- **Downtown Strategies:** Garner Forward contains a section on downtown Garner as an “Opportunity Site,” with an exploration of ways that future public and private investment (including infill) can build on downtown’s strengths. Other sections of the plan list ideas, goals, and strategies to improve the downtown area.

## *Report on Strategies for Important Consideration*

- **Adjust Zoning:** The town adopted their new UDO in July of 2022.
- **Allow Higher Densities:** The town’s FLUM in Forward Garner includes several categories that allow for denser development, such as Medium and High-Density Residential, Multi-Family Residential, Mixed Density Neighborhood Center, and more. The town’s new UDO includes updated zoning districts that allow for denser development, primarily including the Residential 8 (R8) district, which allows a mix of “house-scale” multi-family units and mixed-uses in certain locations. Two districts—Multifamily A and B (MF-A and MF-B) allow for various types of apartment structures. Denser development is also allowed under the new UDO in multiple mixed-use/business districts.
- **Range of Housing:** The UDO allows for a range of housing/unit types in a number of districts. For example, the Residential 2 and 4 (R2 and R4) districts allow for duplexes as a principal use, in addition to SF homes. The R8 district allows for a variety of small, missing-middle-type units, including townhouses (3-4 dwelling units/structure), triplexes, and quadplexes as primary uses. The MR-A and B districts allow for all of the above multi-family unit types, plus larger townhouse structures, larger multi-family apartment buildings of over 4 units/structure, and “upper story residential,” or units over smaller-scale storefront commercial uses. See plan for details on the NMX, CMX, and AC unit types allowed.
- **Building Re-Use:** Forward Garner includes a character recommendation centered on reuse of existing buildings: “Encourage redevelopment and reuse of existing sites and buildings that are complimentary to the surrounding area” (Creating Success and Implementation Section, p. 92). The Working Spaces section, page 71, carries a brief mention of private sector partnerships being helpful for reusing languishing retail spaces.
- **Freight Movement Areas:** Garner is within the area covered by the 2018 Triangle Regional Freight Plan, which provides a comprehensive look at freight conditions, trends, capacity, and future development for the greater Research Triangle region.
- **Adjust Parking Requirements:** One of the commercial-related recommendations in the Garner Forward plan was to “Revisit and Revise Parking...Comprehensively.” The UDO seemingly carries forward standard parking requirements (2 spaces/duplex unit, etc.) and does not appear to have undergone major changes. Garner can advance this planning strategy by modernizing their parking requirements, which is carried forward as a strategy for important consideration.

- **Connect Streets:** Garner Forward contains a goal to establish a street connectivity standard, citing poor east-west connectivity in the town today; the plan aims to “prioritize and defend connectivity” overall. The town carried out the above plan recommendation in its 2022 UDO. The UDO includes minimum street connectivity standards via a connectivity index score that developments in different types of districts are required to meet. Other plan recommendations pertaining to requiring direct pedestrian/bicycle connections between cul-de-sac neighborhoods and nearby key destinations were carried through in the UDO as well.
- **Bicycle and Pedestrian Requirements:** Garner Forward recommends supporting school zone bicycle and pedestrian safety and sponsoring a bike share station in the downtown area. The transportation section of the plan calls out 194 proposed miles of bike and pedestrian improvements, including 64 miles of sidewalks, 80 miles of bikeways, and 34 miles of trails. The plan recommended that the UDO should implement Garner’s envisioned new prioritization of bicycle and pedestrian needs, including subdivision standards. Garner can advance this strategy by including UDO guidelines for designated on-street bicycle facilities, which is carried forward to the 2023 recommendations.
- **Coordinate with Economic Development Plans:** The town of Garner benefits from the Garner Economic Development Corporation, which produces its own annual plan of work, an annual report and partnered with the Town and with the Historic Downtown Garner group to produce an **Economic Development Strategic Plan** that was published in 2019/2020.

## Kenly

### *Report on Highest Priority Strategies*

- **Encourage Mixed-Use:** The town’s updated UDO includes a PD-Mixed-Use District, which must be at least two acres in size. Kenly can advance this by including a points-based or other incentive system to allow for a reduction in performance standards seen in the updated UDO. This is carried forward in the 2023 recommendations as important for consideration.
- **Interlocal Agreements:** The code contains an old (1999) interlocal agreement with Johnson County for the County to “furnish building code administration and enforcement for the Town of Kenly.” Kenly can advance this by pursuing update interlocal agreements, carried forward as a 2023 recommendation important for consideration.
- **Coordinate with CIP:** Capital improvement planning and growth-guided infrastructure is carried forward as a 2023 recommendation under important consideration for Kenly.

### *Report on Strategies for Important Consideration*

- **Comp Plan/Adjust LUP:** Developing and adopting an updated comprehensive plan is a high priority carried forward to the 2023 recommendations for Kenly.
- **Allow Higher Densities:** The 2022 FLUM includes at least one district that may allow for denser, multi-family development. This is carried forward as a strategy for important consideration.
- **Downtown Strategies:** Developing downtown strategies is carried forward as a 2023 recommendation under important consideration for Kenly.
- **Range of Housing:** Under the 2019 UDO, unit types permitted include duplexes and townhouses, along with upper-story residential. The latter three-unit types are allowed as special uses in three districts, while upper-story (over commercial) residential is allowed in 4 different business/downtown districts as a principal use.
- **Building Re-Use:** Allowing for building re-use in the code is carried forward as a 2023 recommendation under important consideration for Kenly.

- **Freight Movement Areas:** Kenly is within the area covered by the 2018 Triangle Regional Freight Plan, which provides a comprehensive look at freight conditions, trends, capacity, and future development for the greater Research Triangle region.
- **Adjust Parking Requirements:** Adjusting parking requirements is carried forward as a 2023 recommendation under important consideration for Kenly.
- **Connect Streets:** Promoting street connectivity is carried forward as a 2023 recommendation under important consideration for Kenly.
- **Bicycle and Pedestrian Requirements:** The code requires safe pedestrian connections between subdivisions and key destinations like schools, parks, greenways, etc. that are within one-quarter mile of a given subdivision. Breaks in walls and fences are allowed for pedestrian connections. Pedestrian connections through cul-de-sacs are required when “the cul-de-sac helps provide adequate access” to shopping centers, transportation corridors, schools, etc.
- **Coordinate with Economic Development Plans:** Coordination with economic development plans was not carried forward for the 2023 recommendations.

## Micro

### *Report on Highest Priority Strategies*

- **Encourage Mixed-Use:** A mixed-use district (MUD) is identified as “reserved for future amendment” in the new UDO. Encouraging mixed-use is carried forward as a high priority for Micro in the 2023 recommendations. Micro could consider a points-based or other incentive system to allow for a reduction in performance standards.
- **Coordinate with CIP:** Micro is exploring the renewal and expansion of water and sewer infrastructure. As such, capital improvement planning and growth-guided infrastructure will be important and is carried forward as an important consideration for Micro.
- **Coordinate with Economic Development Plans:** The town’s comprehensive plan encouraged economic growth, including light industrial uses in appropriate areas, downtown revitalization, and high-oriented retail near the I-95 interchange.

### *Report on Strategies for Important Consideration*

- **Comp Plan/Adjust LUP:** Micro’s most recent Comprehensive Land Use Plan was adopted in February of 2019.
- **Adjust Zoning:** Micro adopted its new zoning ordinance in June 2021.
- **Allow Higher Densities:** Town representatives indicated that though Micro does not allow for dense development currently, there could be some room for density and/or more zoning districts in future updates. The updated zoning code includes the R-10 district, which allows for various types of denser, non-single family home-based residential development. This is the only district that allows true denser development under the new (2021) code. Duplexes are allowed with a Special Use Permit in the Residential Agricultural (RA) and Residential Single-Family (R-15) districts. The Downtown Commercial (CD) district is designated as a “Non-Residential” district, but the Table of Permitted Uses (p. 3-6) states that townhouses and attached houses may be allowed as special uses. This is carried forward as a high priority for Micro.



- **Downtown Strategies:** The 2019 plan includes a sub-goal that encourages revitalization and expansion of retail/commercial uses in the Town’s historic downtown commercial area.
- **Range of Housing:** The RA and R-15 districts allow duplexes as special uses, in addition to allowing detached single-family homes; the CD district may allow for townhomes and other attached homes. The R-10 district is specifically meant to allow a mix of unit types, including single-family, duplex, and multi-family housing. The code also includes a PUD district, which may allow for greater flexibility in unit/housing types, such as townhomes and other attached homes.
- **Interlocal Agreements:** An interlocal agreement is carried forward as a 2023 recommendation under important consideration for Benson.
- **Freight Movement Areas:** Micro is within the area covered by the 2018 Triangle Regional Freight Plan, which provides goals and a comprehensive look at freight conditions, trends, capacity, and future development for the greater Research Triangle region.
- **Adjust Parking Requirements:** Micro’s code includes standard parking requirements, such as requiring at least 2 spaces/unit for duplexes and 2.5 spaces/unit for multi-family and townhome development.
- **Connect Streets:** Encouraging street connectivity is carried forward as a 2023 recommendation under important consideration for Micro.
- **Bicycle and Pedestrian Requirements:** In the UDO, the CD district is guided as a pedestrian-oriented environment. Micro can advance this topic by considering bicycle infrastructure improvements.

## Pine Level

Note: The Town of Pine Level was included in the 2023 Southeast Area Study; however, it was not part of the 2017 SEAS. Therefore, the analysis provided below reported on Pine Level’s planning history (land use plans and regulatory code) for this SEAS update.

### *Report on Planning History*

- **Comp Plan/Adjust LUP:** Pine Level adopted its land use plan in June 2022. The main focus of the LUP was the impending transportation changes (Highway 70/42 interstate coming through Pine Level) impact of shifting land uses, specifically for industrial or commercial uses.
- **Adjust Zoning:** Pine Level updated its UDO in December 2021, which focused on density. This update included support for mixed-use and residential downtown, as well as accommodating farmland that is converting to residential.
  - There was a moratorium in 2021 on the approval of subdivisions though Fall 2023 because of sewer capacity. Through this change, planned unit developments were removed from the code.
  - Currently, Pine Level receives wastewater services through Johnston County. The allocation of sewers by Johnston County will influence future development.

## Raleigh

### *Report on Highest Priority Strategies*

- **Coordinate with CIP:** Section 1-7 of Raleigh’s 2030 Comprehensive Plan covers the city’s relationship to the CIP and discusses recommendations to enhance the CIP planning and budgeting process.

### *Report on Strategies for Important Consideration*

- **Allow Higher Densities:** Raleigh’s future land use map (FLUM) includes several higher density categories: moderate scale residential, medium scale residential, higher scale residential, office and residential mixed-use.
- **Range of Housing:** Raleigh’s 2030 Comprehensive Plan calls for mixed-income neighborhoods, geographic dispersal of affordable units, affordable housing design, zoning for housing, and housing diversity.
- **Small Area Plans:** Several small area plans for Raleigh neighborhoods have been adopted, both pre- and post-2017 SEAS. The Cameron Village & Hillsborough Street and Midtown-St Albans plans were adopted since 2017, while the Falls North plan was adopted in later 2017, likely after the 2017 SEAS was adopted.
- **Design Guidelines for Nodes:** Chapter 11.7 of the 2030 plan has thorough design guidelines, while the city’s UDO has design guideline principles for special districts (Section 4.7.5), solid waste, streets, historic districts, and planned developments.
- **Freight Movement Areas:** Raleigh is within the area covered by the 2018 Triangle Regional Freight Plan, which provides goals and a comprehensive look at freight conditions, trends, capacity, and future development for the greater Research Triangle region.
- **Adjust Parking Requirements:** The 2030 Raleigh Comprehensive Plan calls for changes in parking policies and argues that there is too much parking in the city, which leads to more single-occupancy vehicle trips. The plan recommends reduced parking requirements where appropriate to promote walkable communities and alternate modes of transportation. The city’s UDO includes a table of parking minimums and maximums (Article 7.1).
- **Connect Streets:** Raleigh has a certified recommendation to the Raleigh Planning Commission on Street Connectivity and Access, while the 2030 plan mentions street connectivity in several contexts, such as housing and traffic. Several proposed policies and actions relating to street connectivity are also present in the 2030 plan.
- **Coordinate with Economic Development Plans:** Raleigh has several economic development plans, including the Raleigh Strategic Plan and Downtown Plan. The 2030 plan references the Strategic Plan and the Downtown Plan.

## Selma

### *Report on Highest Priority Strategies*

- **Encourage Mixed-Use:** Both the town’s 2017 UDO and 2040 Comprehensive Land Use Plan include a Mixed-Use (MU) district. The MU district allows for higher residential densities in multi-family structures. Chapter 6’s recommendations include guidance for potentially expanding the amount of land zoned as mixed-use. Selma can advance this planning strategy by considering a points-based or other incentive system to allow for a reduction in performance standards.
  - **Building Re-Use:** The plan includes Objective (10.1, p. 64) that “encourages historic buildings to be adapted as reused.” Selma can advance this by incorporating building re-use into future code updates, and this is carried forward as a strategy for important consideration in the 2023 recommendations.

- **Coordinate with CIP:** Capital improvement planning and growth-guided infrastructure is carried forward as a high priority recommendation for Selma.

### *Report on Strategies for Important Consideration*

- **Comp Plan/Adjust LUP:** Selma adopted its 2040 Comprehensive Land Use Plan in May 2021.
- **Adjust Zoning:** Selma completed its UDO update in early 2017.
- **Allow Higher Densities:** The 2040 plan's future land use map (FLUM) allows for denser development in the Medium Density Residential (MDR) with duplexes and smaller lot sizes, while the High Density Residential (HDR) allows for multi-family housing like apartments and townhomes.
- **Downtown Strategies:** The town's 2019 Economic Development Strategic Plan includes strategies related to growing businesses in Selma's downtown, while the related 2019 Downtown Selma Property Conditions Assessment focuses on addressing business vacancies and improving facades and signs. Goal 2 of the 2040 plan is to create an "Active, vibrant, and revitalized Downtown area." There are 10 objectives under this goal; one is to encourage "multi-story mixed-use infill development" (2.5, p. 59), while another encourages better pedestrian and bicycle accessibility.
- **Range of Housing:** The 2040 plan and FLUM allow for a mix of unit types in the MDR, HDR, MU, and Transitional Residential (TR) districts. The HDR and MU districts allow for the highest number of unit types within a single land use category. There is a PUD process that may also allow for greater mixing of unit types, depending on circumstances.
- **Freight Movement Areas:** Selma is within the area covered by the 2018 Triangle Regional Freight Plan, which provides goals and a comprehensive look at freight conditions, trends, capacity, and future development for the greater Research Triangle region. Chapter 3 (Transportation, p. 31) of the 2040 plan mentions the town's existing freight rail and highway infrastructure, in addition to listing planned roadway improvements/capacity expansions in the Selma area out to 2035, as identified by NCDOT. Plan Objective 7.1 mentions constructing a transportation system that serves freight needs well.
- **Adjust Parking Requirements:** Objective 2.6 (Goal 2, p. 59) of the 2040 plan encourages allowing downtown development projects to have reduced on-site parking requirements.
- **Connect Streets:** The 2040 plan includes policy goals related to connectivity. Goal 7 (p. 63) under Transportation encourages maintaining "roadway network connectivity" and general capacity/flow, controlling driveway placement, access, and circulation and includes an Objective for "promoting walkable, connective development patterns." Goal 8 describes Objectives related to ensure pedestrian bike connectivity between key facilities, community resources, and residential neighborhoods.
- **Bicycle and Pedestrian Requirements:** The 2040 plan's Transportation section has a number of recommendations for improvements from the Johnston County Comprehensive Transportation Plan. The plan recommends updating these requirements to help accommodate non-motorized transportation and potentially develop a first-time bicycle and pedestrian plan. This is carried forward as an important consideration for Selma.
- **Coordinate with Economic Development Plans:** In 2019, the town completed its Economic Development Strategic Plan (EDSP). The town's EDSP is organized around a traditional SWOT analysis and features existing conditions-type information about the town's economic status, and demographics. The final section of the plan uses the SWOT analysis to suggest future direction for economic development and includes an implementation section.



## Smithfield

### *Report on Highest Priority Strategies*

- **Comp Plan/Adjust LUP:** The Smithfield Town Plan was adopted in February 2020. The Town Plan includes three volumes (Introduction, Growth Management Element, and Transportation Element).
- **Building Re-Use:** The Smithfield Town Plan mentions adaptive reuse, aiming to “activate downtown by encouraging a high-quality built environment through reuse, development and infill that builds on downtown’s existing strengths including its historic charm.” Smithfield can advance this by updating the UDO to allow for reuse or redevelopment, and this is carried forward as an important consideration.
- **Coordinate with CIP:** Smithfield’s Town Plan mentions including streetscape improvements in the town’s Capital Improvement Plan, as a part of the objective to enhance the physical and visual assets of downtown.

### *Report on Strategies for Important Consideration*

- **Downtown Strategies:** Volume II of the Smithfield Town Plan includes a section about downtown with objectives and policy recommendations for a vibrant downtown. Volume I includes a downtown land use area plan.
- **Range of Housing:** The Smithfield Town Plan Volume II includes policy recommendations allowing for increased density, including considering updates to requirements for accessory dwelling units, allowing attached and multi-family residential, and encouraging new residential subdivisions and infill residential in certain areas.
- **Freight Movement Areas:** Smithfield is within the area covered by the 2018 Triangle Regional Freight Plan, which provides goals and a comprehensive look at freight conditions, trends, capacity, and future development for the greater Research Triangle region.
- **Adjust Parking Requirements:** The Smithfield Town Plan Volume I addresses parking concerns, including that much of the land in the downtown area is taken up by parking. The Smithfield UDO calls for parking maximums as 150 percent of parking minimums.
- **Connect Streets:** The Smithfield Town Plan discusses street connectivity in both volumes II and III. Volume II calls for creating a transportation system that connects people to destinations safely, equitably, and efficiently. Volume III includes recommendations for street improvements and a more connected street network, including street typology charts and maps. The Smithfield UDO includes a section on Street Connectivity Requirements.
- **Bicycle and Pedestrian Requirements:** Volume III of the Smithfield Town Plan Volume includes several recommendations for bicycle/ pedestrian improvements, as well as a timeline of execution and a map of downtown bicycle and pedestrian recommendations.

## Wilson’s Mills

### *Report on Highest Priority Strategies*

- **Comp Plan/Adjust LUP:** Wilson’s Mills adopted their new 2040 Comprehensive Land Use Plan in December 2019. Also available to the public on Wilson’s Mills website are stand-alone documents showing the Town Center concept expressed in the plan, a map of growth opportunity areas, and the future land use map (FLUM).

- **Encourage Mixed-Use:** The town's 2019 UDO has two mixed-use districts, Mixed-Use 1 and 2 (MU-1, MU-2). Additionally, a traditional Neighborhood Development Overlay District (TDNO) allows for a mix of uses on a smaller scale. This district allows a mix of housing types, "shop-front commercial" buildings only, and civic buildings. Wilson's Mills can advance this strategy by considering a points-based or other incentive system to allow for a reduction in performance standards.
- **Building Re-Use:** The 2040 Comprehensive Land Use Plan includes the Main Street District, which calls for new development, revitalization, reuse, and infill in the core downtown. Another strategy advises the adaptive reuse of historic structures for public uses.

### *Report on Strategies for Important Consideration*

- **Adjust Zoning:** The new Wilson's Mills Unified Development Ordinance (UDO) was also adopted in December 2019. The town's new UDO updated and replaced their previous zoning, subdivision, and flood damage prevention ordinances.
- **Allow Higher Densities:** There are four zoning districts that allow for denser types of development; two of these include "Catalyst Areas," which further encourages development. The Residential Main Street Transition District (RMST), for example, allows for attached homes and multi-family apartment buildings. The Main Street (MS) and the two Mixed-Use districts mentioned above also allow more dense development.
- **Freight Movement Areas:** Wilson's Mills is within the area covered by the 2018 Triangle Regional Freight Plan, which provides goals and a comprehensive look at freight conditions, trends, capacity, and future development for the greater Research Triangle region. Truck traffic is called out as an issue to resolve in Objective 1 (5.2.6.1, p. 39) of the Town's plan. This objective states that Wilson should work to separate/move truck traffic from its downtown street system and into other avenues as is feasible, namely concerning US 70 (future I-42). There is a focus on traffic safety at intersections with US-70 as well.
- **Adjust Parking Requirements:** The 2040 plan includes one objective (5.2.4.5, p. 39) to identify potential shared parking opportunities for businesses in the MS (downtown) district. The UDO includes parking maximums for ADUs, multi-family dwellings, and certain single-family homes. For example, a multi-family unit with three bedrooms or more could have a maximum of three parking spaces provided. There are also parking maximums for many (but not all) commercial/retail, civic, industrial, office uses, etc.
- **Connect Streets:** Wilson's Mills UDO discourages the development of new cul-de-sacs and promotes connectivity and the ability to create future connections from stub-end streets wherever possible.
- **Coordinate with CIP:** The 2040 plan references the Town's 2009 CIP. Capital improvement planning and growth-guided infrastructure is carried forward as a high priority recommendation for Selma.
- **Bicycle and Pedestrian Requirements:** The 2040 plan has multiple objectives that are centered around bicycle/pedestrian issues, and recommendations in the plan were carried forward into the UDO update. For example, Objective 3 (5.2.6.3, p. 40) of the comp plan focuses on improving the Town's pedestrian environment, with one strategy of this objective being developing a bicycle and pedestrian and alternative transportation plan. Other plan objectives center around pedestrian and bicycle access in new developments. The UDO discourages cul-de-sac development, prioritizes pedestrian and bicycle infrastructure in new developments (as suggested in the plan), requires street trees in most cases, and doesn't allow design speeds for streets in the town to exceed 30 mph on neighborhood, mixed-use, and/or non-residential streets.
- **Coordinate with Economic Development Plans:** The 2040 plan includes Economic Development Opportunities and Actions sections (6.7 and 6.8; pp. 52 - 55).

# Johnston County

## *Report on Highest Priority Strategies*

- **Comp. Plan/ Adjust LUP:** Johnston County recently updated its Comprehensive Land Use Plan – Envision Johnston 2040 - with a draft available online. The final version is expected to be available later in 2023.
- **Corridors/Promote Corridor Nodes:** Johnston County’s 2040 comprehensive plan focuses on concentrating more dense development at key nodes along transportation corridors. The Regional Mixed-Use, Neighborhood Center, and Rural Crossroads future land use categories all allow for more intensive and (for some categories) mixed-use development at and along principal transportation arteries.
- **Coordinate with Economic Development Plans:** Envision Johnston does include an Economic Development section. This section includes recommendations around supporting/ maintaining and growing employment and business development in the county.

## *Report on Strategies for Important Consideration*

- **Adjust Zoning:** Johnston County updated its Land Development Code (LDC) in 2020 with minor changes. The draft of Johnston County’s 2040 Comprehensive Plan suggests that the county further amend or fully re-write its LDC following adoption of the comprehensive plan.
- **Allow Higher Densities:** ADU legalization was considered during the Envision Johnston 2040 comprehensive plan development process. Johnston County’s 2030 Comprehensive Plan place types include a category for “Medium Density Residential” that includes smaller lot sizes for single family homes and attached housing like townhomes and duplexes. The 2040 Plan also has a category for “Regional Mixed-Use Center,” which may allow for higher densities. Envision Johnston encourages amending the Land Development Code to allow for ADUs in certain districts; this does not appear to have been done yet. Recommendations from the 2040 plan draft include promoting more compact development in mixed-use centers at higher densities; there is also a recommendation for a new residential zoning district that allows higher densities. Conservation subdivisions that are slightly denser and preserve open space are also discussed. Supporting and creating more walkable mixed-use districts is mentioned in the plan draft, with development concentrated in these areas.
- **Range of Housing:** The plan would allow for a mix of unit types in certain land use categories and seeks to foster a greater diversity of housing types within financial reach of more households. The current zoning code allows for a mix of housing types within certain districts.
- **Small Area Plans:** Envision Johnston includes recommendations to create small area plans for employment centers, key nodes, and areas that could be redeveloped.
- **Design Guidelines for Nodes:** Johnston County has design guidance and standards in its code, along with design guideline recommendations in its comprehensive plan. This guidance focuses on traditional requirements such as parking, site design/access, and stormwater access, and also includes specific design standards for subdivisions.
- **Freight Movement Areas:** The Johnston County 2014 Comprehensive Transportation plan briefly mentions freight but does not lay out priorities for freight movement. Envision Johnston mentions emphasizing freight access but does not include specific recommendations or design standards. The County is within the area covered by the 2018 Triangle Regional Freight Plan, which provides goals and a comprehensive look at freight conditions, trends, capacity, and future development for the greater Research Triangle region.



- **Coordinate with CIP:** Envision Johnston includes a subsection discussing linkages to capital investments and the CIP. Specifically, it mentions ensuring that public investments are in line with what is envisioned in the CIP and future development patterns. There is also discussion about directing development to parts of the county with existing and planned sewer capacity and good transportation access, and doing fiscal impact analysis to see what affects new development could have on the county's expenditures.
- **Bicycle and Pedestrian Requirements:** Envision Johnston includes bicycle and pedestrian specific policies in relation to creating complete streets and walkable communities. The plan encourages the development of mixed-use, walkable, compact communities. The plan also includes creating bicycle and pedestrian infrastructure in the context of developing higher development standards and helping communities maintain and improve their desired character. Additionally, a section of Envision Johnston covers the promotion of active transportation, including recommendations to update regulations to require sidewalks in certain places and to include bike lanes on important roads as they are improved. The county's subdivision ordinance also briefly mentions pedestrian access.

## Wake County

### *Report on Highest Priority Strategies*

- **Adjust Future Land Use Plans:** Wake County developed its new comprehensive plan, PlanWake, which was adopted in 2021.
- **Range of Housing:** PlanWake provides a range of housing types in its policies and Growth Framework.
- **Interlocal Agreements:** Wake County facilitated interlocal agreements regarding growth in municipal ETJs and areas of common interest as part of the Wake County Growth Management Plan developed in the early 2000s.

### *Report on Strategies for Important Consideration*

- **Small Area Plans:** PlanWake calls for development of small area plans, the most recent update being for the Lower Swift Creek Area Plan adopted in 2022.
- **Design Guidelines for Nodes:** Wake County updated design guidance for new development through its Municipal Transition Standards that were added to the County's UDO as an implementation step of PlanWake.
- **Adjust Parking Requirements:** PlanWake includes an action to improve parking requirements, including recommendations to assess and revise the UDO to prioritize non-motorized transportation.
- **Connect Streets:** PlanWake calls for a multimodal future for residents. The plan details current transportation patterns along with future potential issues, including the fact that by 2040 most roads and highways in Wake County will exceed their capacity.
- **Coordinate with Economic Development Plans:** PlanWake includes coordination between economic development and land use planning and supports development of compact, walkable communities at strategic locations in the I-540 corridor.

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**U P D A T E**

# **APPENDIX C:**

## Equitable Planning Analysis



# Equitable Planning Analysis

November 2022

*Prepared for:*

# SEAS

S O U T H E A S T   A R E A   S T U D Y

# U P D A T E



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# 1. EQUITABLE PLANNING ANALYSIS

This analysis of transportation need and disadvantage informs the identification of priority areas for transportation investments within the Southeast Area. A Transportation Need Index identifies areas with a greater need for transportation infrastructure, while a Transportation Disadvantage Index identifies areas with more individuals with unique barriers to mobility, as well as those historically marginalized by transportation investments. Collectively, these indices represent a means for the identification of areas to target with transportation investments to enhance the quality and safety of residents' connections to jobs, schools, doctors, grocery stores, places of worship, and other destinations.

*Based on an analysis of transportation disadvantage and need, the areas that lend themselves to the most impactful transportation investments benefitting those that need them most include:*

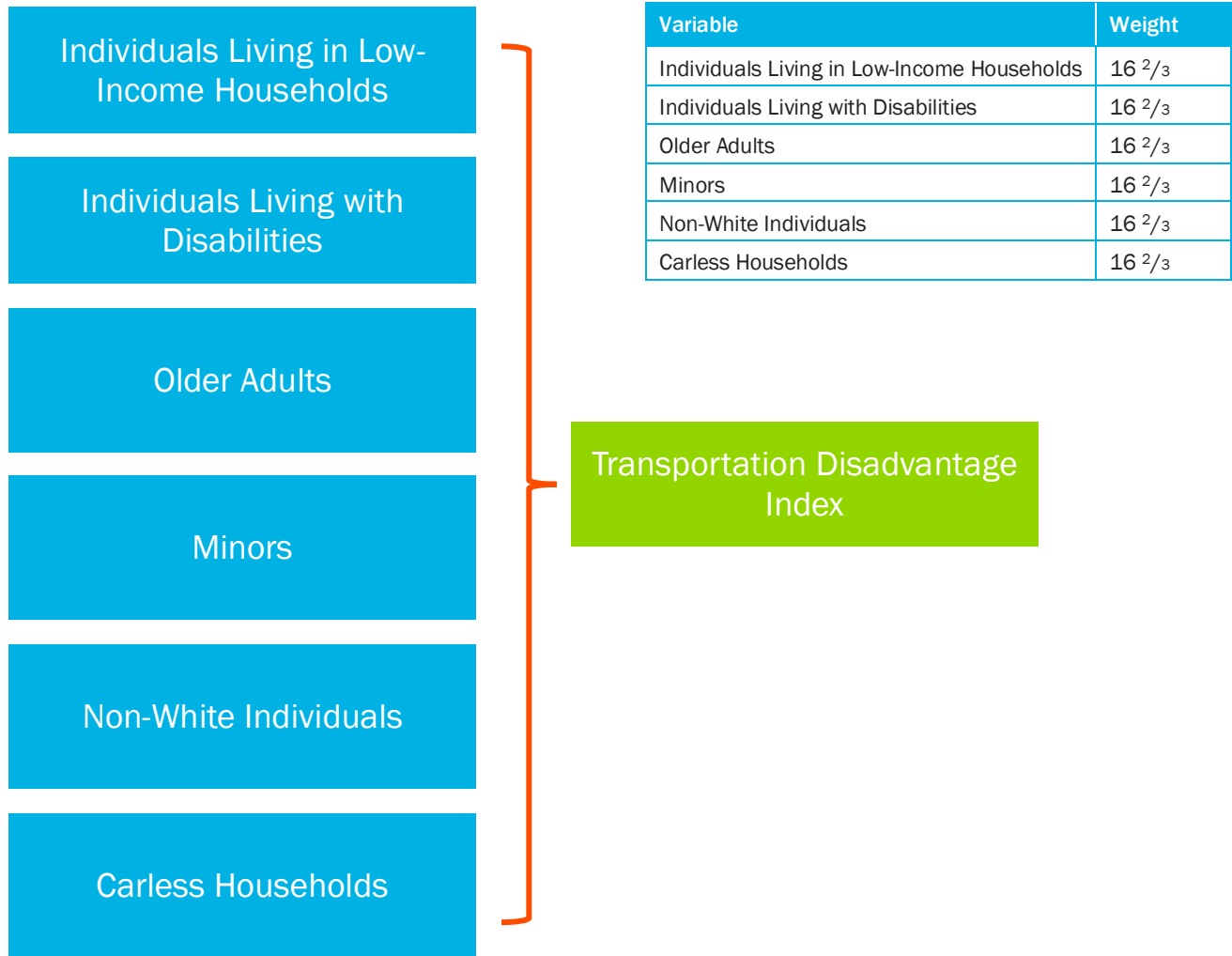
- The Route 301 corridor through Four Oaks, Smithfield, Selma, and Kenly
- Garner, along the Route 70 corridor east of Interstate 40
- Clayton, northeast of Route 70
- Pine Level

## Transportation Disadvantage

To highlight geographies that may require special consideration to ensure that everyone has a means of accessing jobs and services, the North Carolina Department of Transportation (NCDOT) [Transportation Disadvantage Index](#) identifies areas with higher proportions of disadvantaged populations. In other words, the index identifies, describes, and quantifies relative barriers that may limit access to transportation. To do this, the transportation disadvantage index scores Census block groups based on their relative proportion of:

- **Individuals living in low-income households**, who are more likely to rely on walking, bicycling, and transit to meet their transportation needs, because as income falls, the cost of owning and operating a private vehicle becomes more burdensome.
- **Individuals living with disabilities**, whose unique transportation needs demand deliberate planning.
- **Older adults**, aged 65 years and older, who may choose not to or be unable to drive, resulting in their reliance on other modes of transportation.
- **Minors**, aged 15 years and younger, who are more likely to rely on active transportation and/or transit because the vast majority cannot drive.
- **Non-white individuals**, whose transportation requirements deserve additional consideration, reflecting a legacy of racism and ongoing marginalization.
- **Carless households**, whose transportation needs, particularly in regions characterized by auto-oriented development such as the Southeast Area, are likely significant.

FIGURE 1: TRANSPORTATION DISADVANTAGE INDEX METHODOLOGY



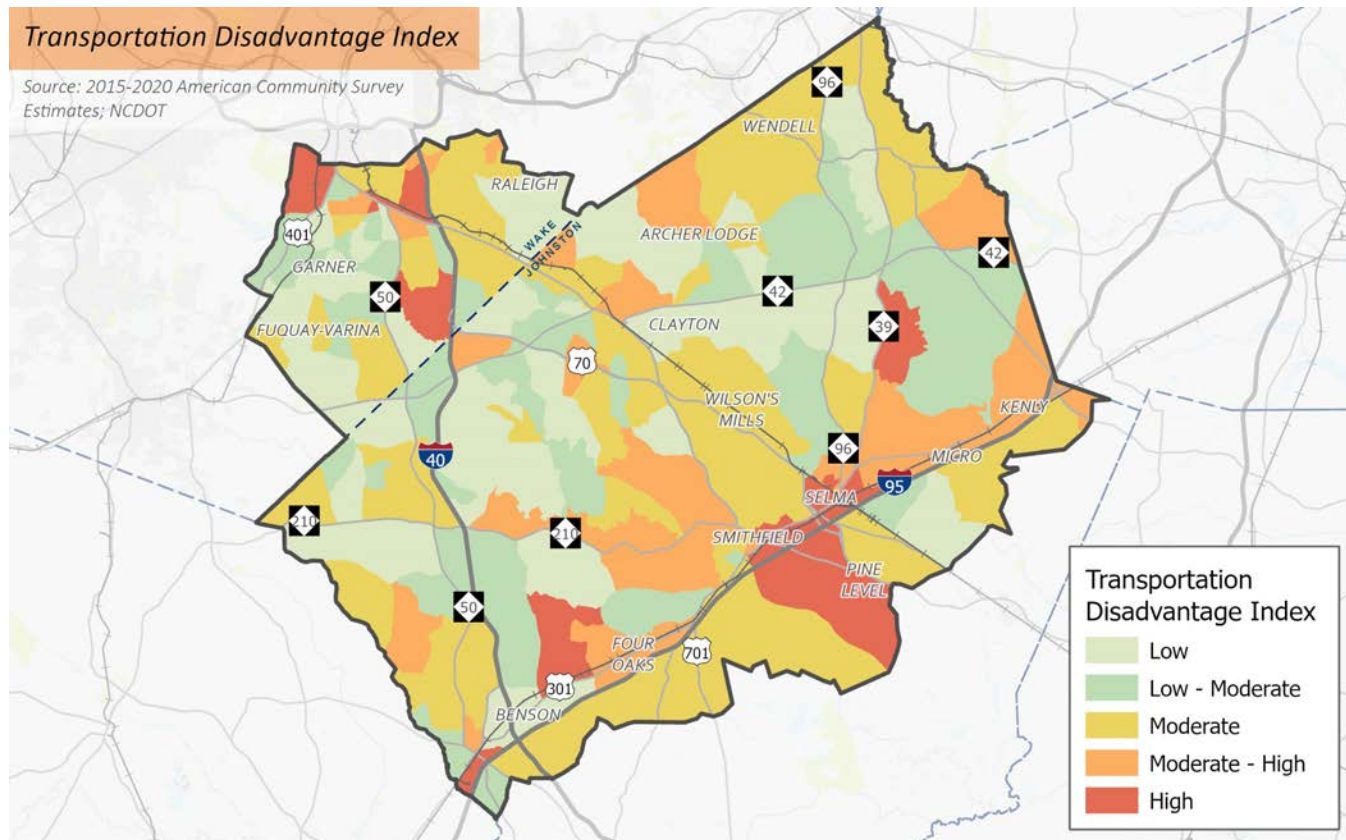
**Figure 1** provides an overview of the methodology used to calculate the Transportation Disadvantage Index. Block groups receive a score of one, two, or three for each variable, with higher scores indicating a higher potential transportation disadvantage<sup>1</sup>; summing these scores provides the relative Transportation Disadvantage Index figure for each block group.

<sup>1</sup> Scores are assigned using the Jenks optimization method, which classifies features based on naturally occurring breaks in the data.



**Figure 2** depicts the relative Transportation Disadvantage Index scores for block groups in the Southeast Area. The largest swath of high Transportation Disadvantage Index scores is found in the Smithfield and Selma area. High scores are also found in and around Garner in Wake County, as well as in Benson, west of Four Oaks, and east of Route 39 in Johnston County. Because the index is based on the relative population sizes, some block groups receive high scores despite very low population densities and total number of disadvantaged individuals (e.g., north of Selma).

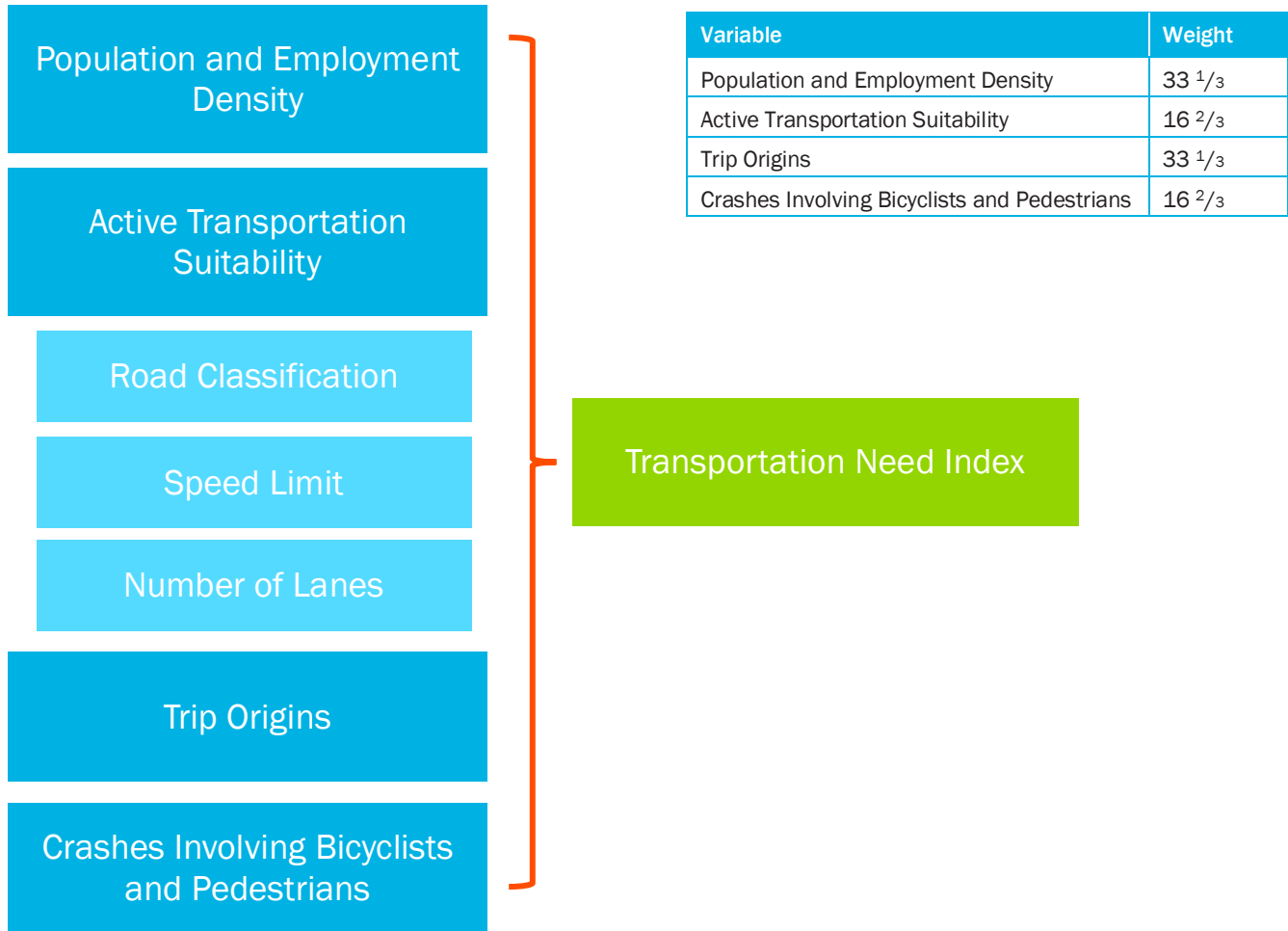
FIGURE 2: SOUTHEAST AREA TRANSPORTATION DISADVANTAGE INDEX SCORES



## Transportation Need

A Transportation Need Index, developed for the SEAS Update, leverages job and population density, active transportation suitability, crashes involving bicyclists and pedestrians, and trip origins to identify areas of greater transportation need.

FIGURE 3: TRANSPORTATION NEED INDEX METHODOLOGY

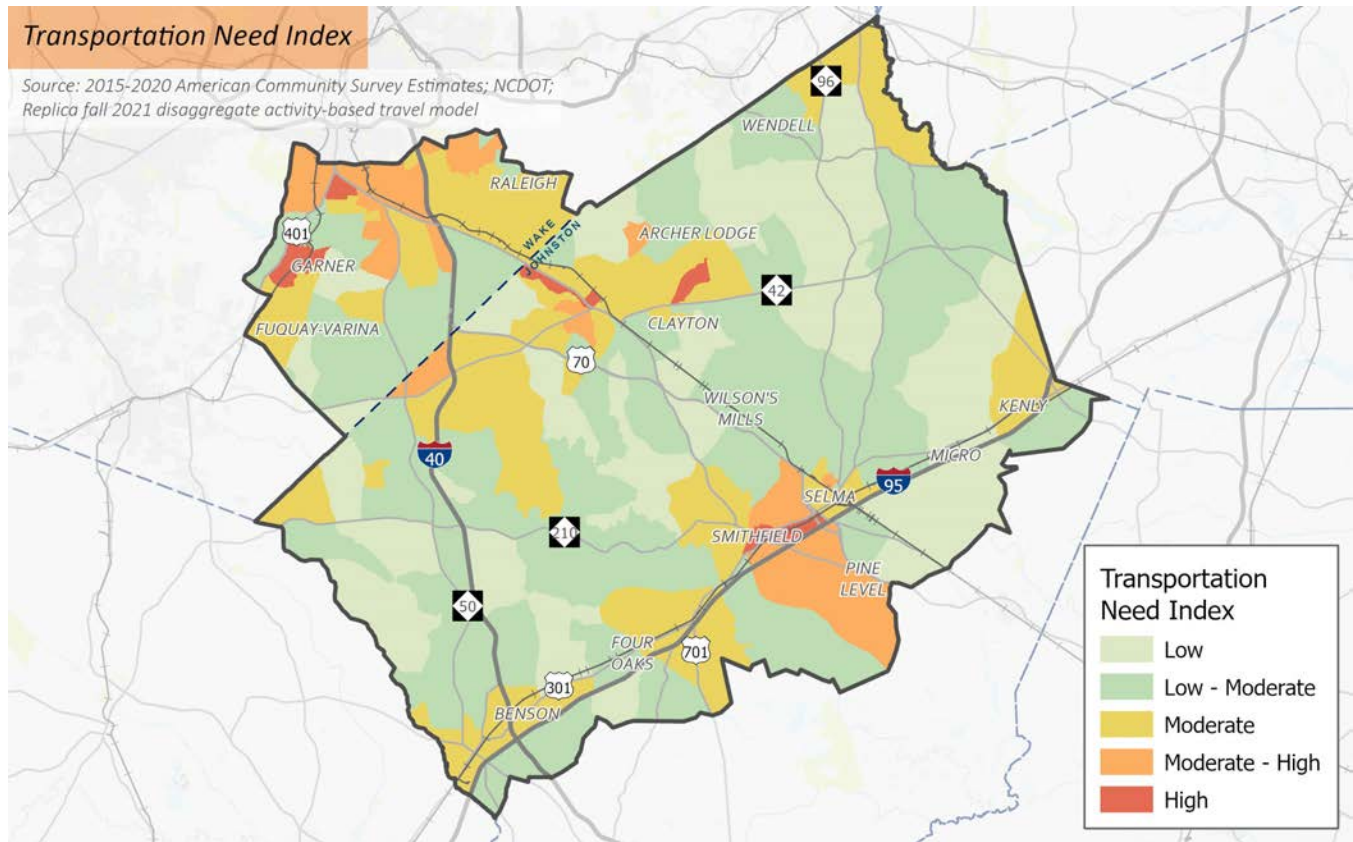


**Figure 3** provides an overview of the methodology used to calculate this index. Block groups receive a score in the range of zero to one for each variable, with higher values indicating greater transportation need<sup>2</sup>. Weighting and summing these scores provides the relative Transportation Need Index figure for each block group.

<sup>2</sup> Scores are assigned using feature scaling (i.e., min-max normalization) to normalize the range of each variable.

**Figure 4** depicts the Transportation Need Index for the Southeast Area. Reflecting the location of people and jobs, prevailing roadway conditions, travel patterns, and crashes involving bicyclists and pedestrians (detailed throughout this chapter), areas of high transportation need are located in and around Selma and Smithfield, Clayton, and Garner.

FIGURE 4: TRANSPORTATION NEED INDEX SCORES





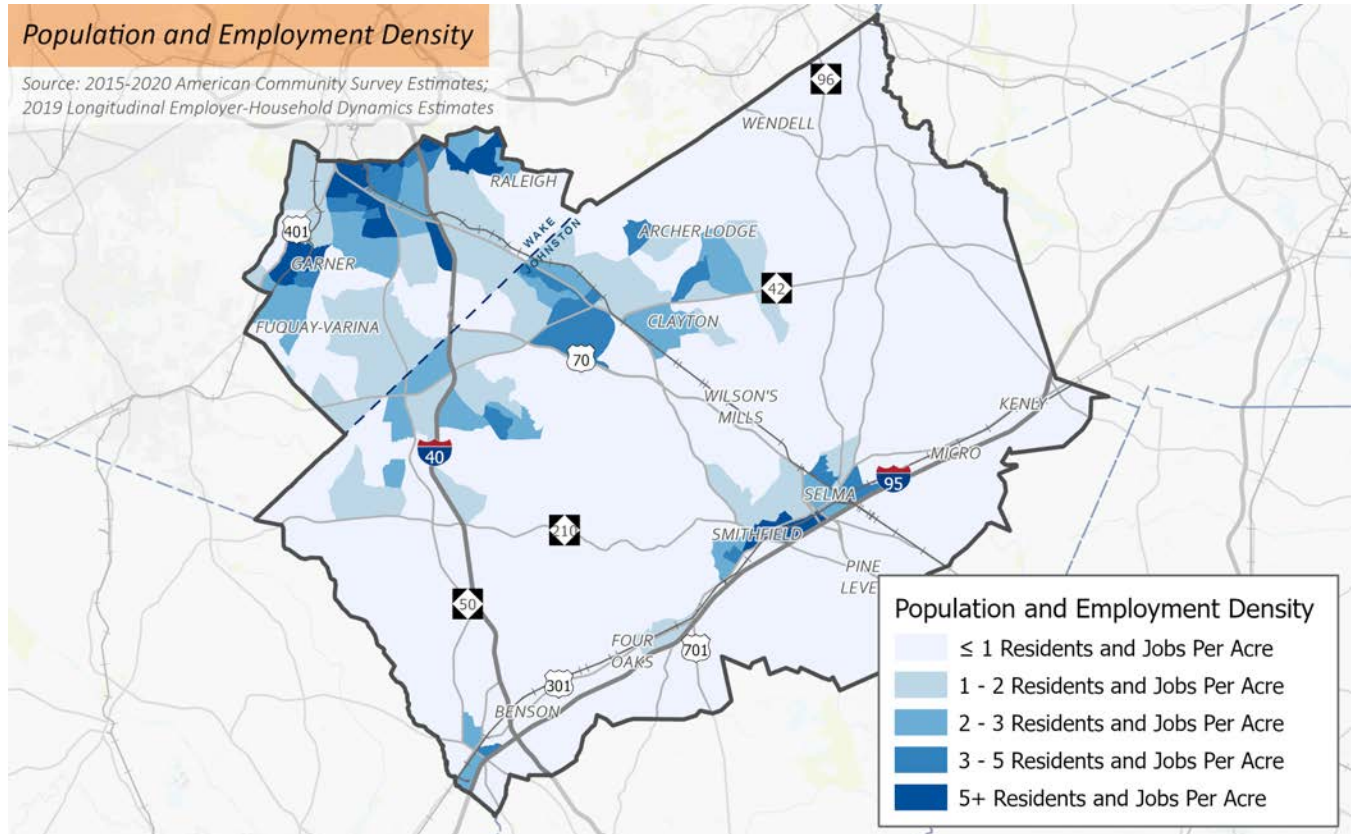
## POPULATION AND EMPLOYMENT DENSITY

The presence of residents and jobs indicates demand for transportation infrastructure, as higher population and job densities result in more trips. At higher densities and with the right investments, transit services become viable, and residents may live close enough to jobs and services that active transportation (i.e., walking and biking) become capable of meeting transportation needs.

*At higher densities and with the right investments, transit services become viable.*

**Figure 5** depicts the job and population density within the Southeast Area. Densities are generally highest in Wake County, though pockets of density are found along Interstate 40 and in and around Clayton, Selma, Smithfield, and Benson in Johnston County.

FIGURE 5: POPULATION AND EMPLOYMENT DENSITY



## ACTIVE TRANSPORTATION SUITABILITY

Areas with a higher density of low-stress roads present the best opportunities to invest in active transportation infrastructure as a means of encouraging multi-modal travel. To identify these areas, each road segment in the Southeast Area was scored based on its suitability for bicyclists and pedestrians. A score of four represents a very high-stress environment, completely unsuited to bicycling and walking, while a score of one indicates a low-stress environment, suitable for bicyclists and pedestrians of all ages and abilities. Variables used in ranking road segments include its classification, the number of lanes, and speed limit. Lower speed local and collector roads with fewer lanes will be more suitable for active transportation and thus have a lower traffic stress score. **Table 1** summarizes the assignment of level of traffic stress scores.

*Areas with a higher density of low-stress roads present the best opportunities to invest in active transportation infrastructure as a means of encouraging multi-modal travel.*

TABLE 1: LEVEL OF TRAFFIC STRESS SCORING

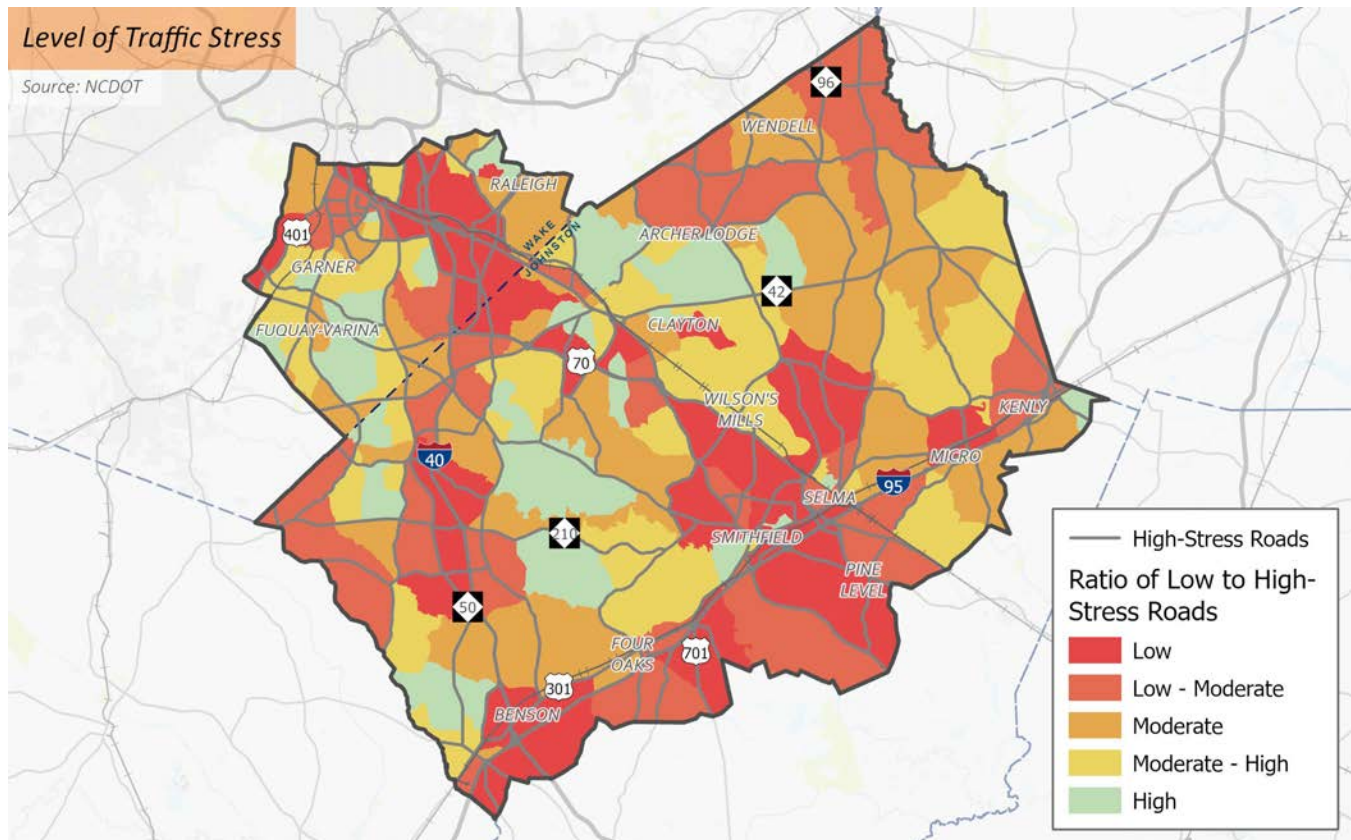
Speed Limit	Number of Lanes	Local Roads	Collector Roads	Arterial Roads
≤25	≤3	1	2	4
	4-5	2	3	4
	≥6	-	4	4
>25	≤3	2	3	4
	4-5	4	4	4
	≥6	-	4	4

To determine the relative active transportation suitability of each block group in the Southeast Area, the ratio of low- to high-stress linear miles was calculated. Segments with a traffic stress score of one or two were considered low-stress, while segments with a score of three or four were considered high-stress.

**Figure 6** depicts the ratio of low- to high-stress roads within the Southeast Area by block group, overlaid with high-stress roads. Areas with the highest ratio of low to high-stress roads, indicating more roads appropriate for active transportation, are depicted in green; areas with the lowest ratio of low to high-stress roads, indicating fewer roads appropriate for active transportation, are depicted in red. The largest concentrations of low-stress roads are found in and around Clayton, Archer Lodge; smaller concentrations are also present in Selma, Smithfield, and Garner. Additionally, some low-density areas throughout the study area score favorably on this metric. While the Southeast Area contains many low-stress roads, except for the more developed areas of Johnston County (e.g., Clayton, Selma, and Smithfield), these primarily exist off of high-stress roads. Accordingly, while residents may find opportunities for recreation along their neighborhood roads, the lack of connectivity between low-stress roads limits the potential for active transportation.

*While residents may find opportunities for recreation along their neighborhood roads, the lack of connectivity between low-stress roads limits the potential for active transportation*

FIGURE 6: LEVEL OF TRAFFIC STRESS



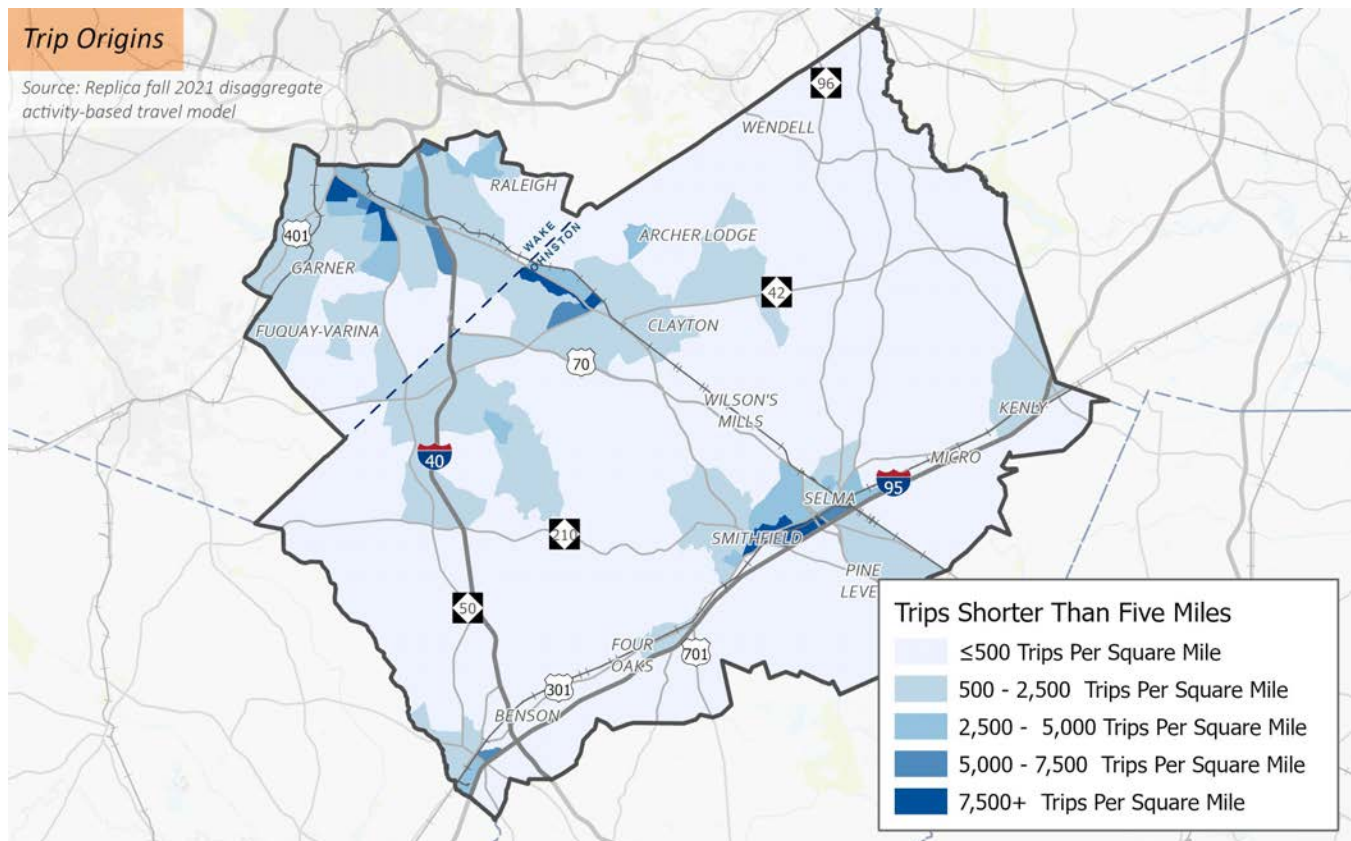


## TRIP ORIGINS

More transportation infrastructure is required in areas where the greatest number of trips occur. Reflecting this need, short trip origins (i.e., the number of trips per square mile less than five miles in length) were summed by block group<sup>3</sup>. Eliminating trips longer than five miles from consideration not only balances the active transportation suitability variable, which inherently favors areas of low density due to the level of traffic stress scoring methodology, but also ensures the prioritization of local transportation investments most likely to reduce the Southeast Area's reliance on single occupancy vehicle travel. These shorter trips are also more easily served by microtransit, which is most efficient for short trips within small service areas.

**Figure 7** depicts the number of trips less than five miles originating in each block group. Within the Southeast Area, these trips primarily occur in and around Garner, Clayton, and Smithfield.

FIGURE 7: TRIP ORIGINS PER SQUARE MILE (TRIPS SHORTER THAN FIVE MILES)



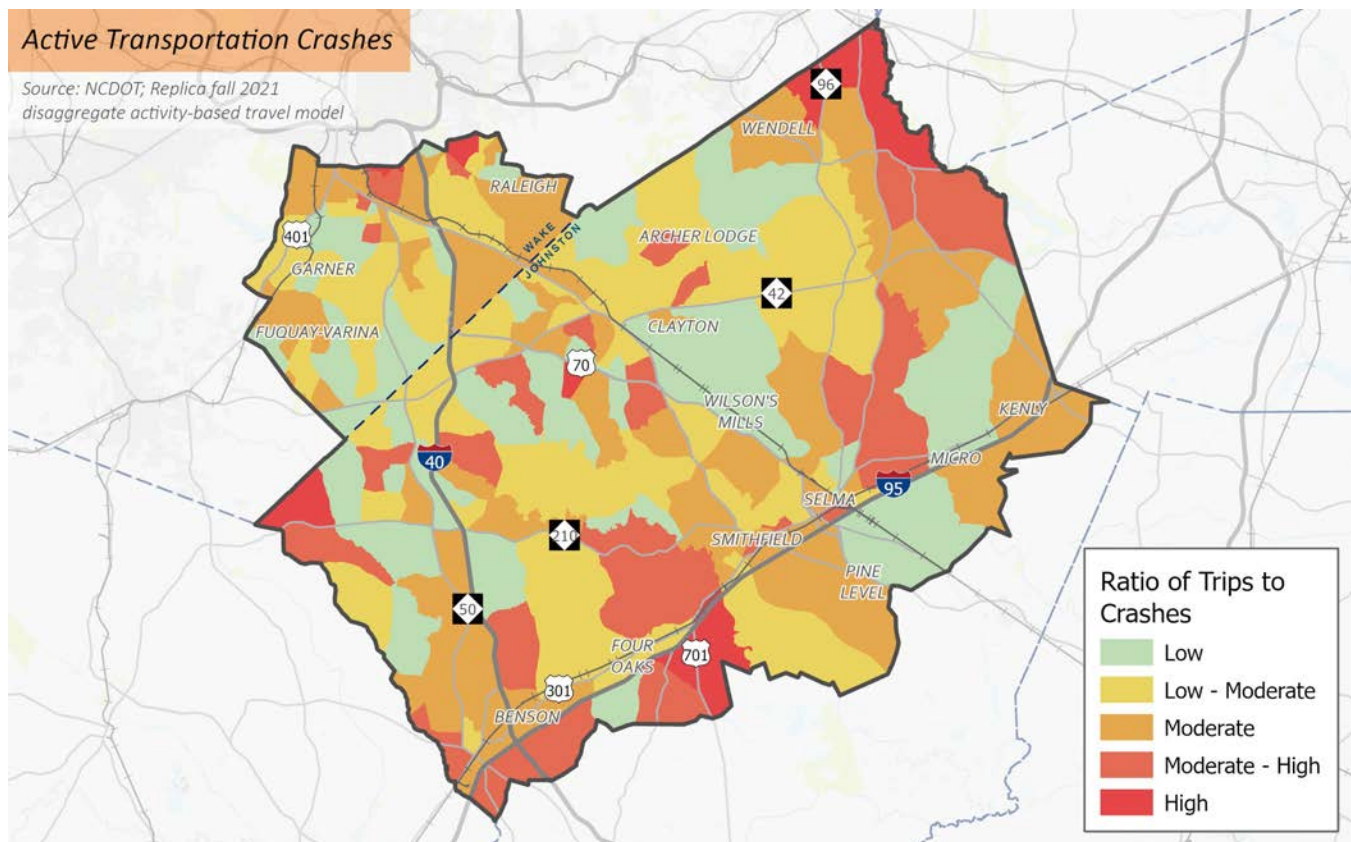
<sup>3</sup> This figure comes from the [Replica](#) disaggregate activity-based travel model of travel during fall 2021.

## CRASHES INVOLVING BICYCLISTS AND PEDESTRIANS

Despite the auto-oriented nature of development in the Southeast Area, a significant number of active transportation trips occur each day (modeling indicates the primary mode of more than 65,000 trips – roughly six percent of all trips in the Southeast Area<sup>4</sup> – is bicycling or walking). Equitable transportation planning demands deliberate planning for the safety of these road users. Accordingly, crashes involving bicyclists and pedestrians were summed by block group and normalized by the number of active transportation trips originating in the same geography<sup>5</sup>.

**Figure 8** depicts this ratio of active transportation crashes to trips. Trends are difficult to discern based on this analysis for two reasons. Notably, NCDOT records indicate that fewer than 200 crashes involving bicyclists and pedestrians occurred in the Southeast Area between 2007 and 2021 as few residents engage in active transportation; additionally, very few short trips occur in many low-density parts of the Southeast Area, so the presence of any crashes result in a high ratio of trips to crashes. Nevertheless, those figures indicate approximately 14 bicyclists and pedestrian crashes every year on average in the study area, making this variable a critical dimension of the transportation need index.

FIGURE 8: ACTIVE TRANSPORTATION CRASHES, NORMALIZED BY MODELED TRIPS



<sup>4</sup> The active transportation mode share in the Southeast Area is comparable to the active transportation mode share in Johnston County.

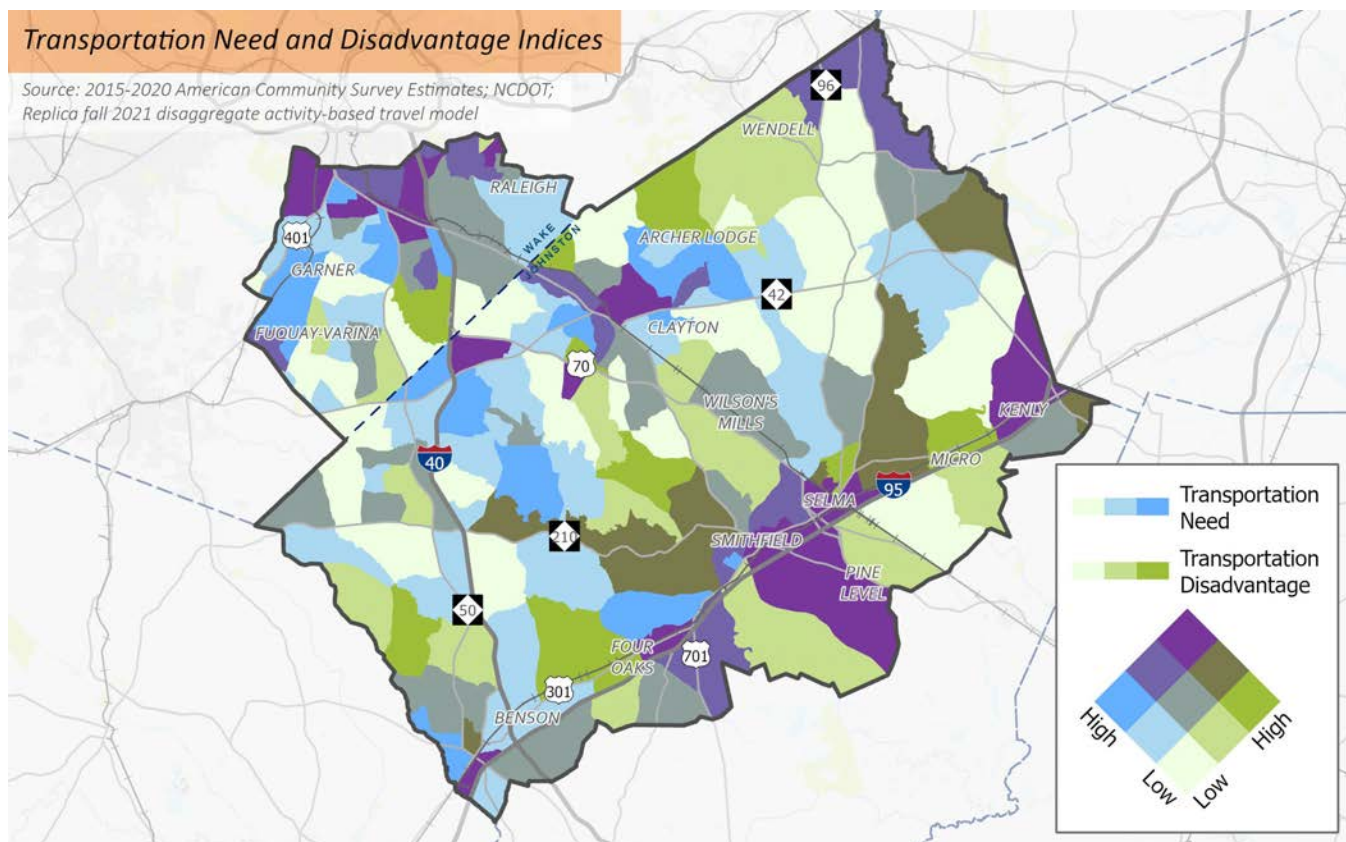
<sup>5</sup> This figure comes from the [Replica](#) disaggregate activity-based travel model of travel during fall 2021.

## Potential Priority Areas

A bivariate analysis, combining the transportation need and disadvantage indices, identifies areas where transportation investments will be most impactful for the people who need them most. **Figure 9** combines these indices, with dark purple depicting block groups scoring high on both the Transportation Need Index and Transportation Disadvantage Index<sup>6</sup>. Based on these results, general priority areas for investments include the following areas:

- The Route 301 corridor running through Four Oaks, Smithfield, Selma, and Kenly.
- Garner, particularly along the Route 70 corridor.
- Clayton, northeast of Route 70.
- Pine Level.

FIGURE 9: TRANSPORTATION NEED AND DEMAND INDICES



<sup>6</sup> Light green depicts block groups scoring low on both the Transportation Need Index and Transportation Disadvantage Index; dark blue depicts block groups scoring high on the Transportation Need Index but low on the Transportation Disadvantage Index; conversely, dark green depicts block groups scoring low on the Transportation Need Index but high on the Transportation Disadvantage Index.



D

**SEAS**

S O U T H E A S T   A R E A   S T U D Y

**U P D A T E**

# **APPENDIX D:**

## Multimodal Intersection Control Evaluation (ICE) Toolkit

# SEAS

S O U T H E A S T   A R E A   S T U D Y

## U P D A T E

Archer Lodge | Benson | Clayton | Four Oaks | Garner | Kenly | Micro | Pine Level | Selma |  
Smithfield | Wilson's Mills | Parts of Raleigh, Johnston County, and Wake County

# MULTIMODAL INTERSECTION CONTROL EVALUATION (ICE) TOOLKIT



Photo: NCDOT

## What is ICE?

Intersection Control Evaluation (ICE) is a performance-based process and framework used to consider alternatives and identify optimal solutions for intersection improvements. The central goals of ICE are to improve **transparency**, **flexibility**, and **adaptability** during the intersection improvement process.

An ICE is a two-step process of **screening** potential intersection design alternatives and **selecting** the ultimate preferred alternative.

## What About Other Modes?

The term “multimodal” includes a variety of road users in addition to the driver, including **people walking and rolling**, **biking**, and **taking transit**. As the Southeast Area grows and builds out plans for sidewalks, greenways, transit service, new roadways, and mixed-use centers, it will become increasingly important for **access**, **mobility**, and **safety** to include accommodations for multimodal users in roadway design.

Intersection Control Evaluations typically focus on safety and delay reduction benefits; however, some ICEs focus more heavily on delay first and vehicle safety second, and have very limited focus on how alternative designs impact the safety and convenience of multimodal users. **The needs of multimodal users must be considered from the beginning to ensure that intersections are safe and efficient for everyone.**



Including multimodal accommodations in roadway and intersection projects at the outset of a project can avoid added costs from retrofitting infrastructure at a later date.

## Why is it Important to Design Intersections for Multiple Modes?

### Infrastructure makes a difference.

Between 2007 and 2021, roughly 98% of recorded pedestrian fatalities and serious injuries in the Southeast Area were in places without sidewalks and 100% of bicyclist fatalities and serious injuries were in places without bike facilities.

### Multimodal design should serve all kinds of users.



#### People walking or rolling

Intersections are a critical part of the pedestrian network. Crossings need to be short, direct, and predictable with enough time for people of all ages and abilities to cross safely.

Crossings also need to be designed for accessibility, with design elements like accessible ramps and signals with audio cues to assist vision-impaired users.



#### People biking

To be bike-friendly, intersections need to be designed to get people biking safely through the intersection, with dedicated space, minimized conflicts with car lanes, and clear indications of how to navigate the space.



#### Transit riders

Transit stops are often located near major destinations but riders may have to cross busy intersections to get to their desired destination, making intersections designed for safety critical to ensuring transit is accessible.



#### Drivers

Intersections that take speed, signal-timing, sight-distance, user behavior, inclement weather conditions, and other safety factors into account can help prevent severe and fatal car crashes.



## Intersection design is critical.

Intersections are major conflict points between people walking and biking and fast-moving multi-ton vehicles. Intersections designed only for traffic flow limit where people can comfortably walk and bike and jeopardize the safety of people who have to cross.

## Multimodal design should provide access and mobility to more people.



### People with no vehicle access

4.1% of Southeast Area households have no access to a vehicle.



### People in one vehicle households

23.9% of Southeast Area households have access to one vehicle- but it may not always be available if there are conflicting travel needs or repairs.



### Children too young to drive

20.8% of Johnston County's population and 19.6% of Wake County's population are under the age of 15 and too young to get a learner's permit in North Carolina.



### Seniors no longer able to drive safely

2018 research by Hedges & Company found that across the US, around 6.5% of people ages 50-69, 15.1% of people ages 70-84, and 39.9% of people over 85 lacked a driver's licenses.



### People with disabilities that prevent driving

Only 60.4% of people ages 16-64 with disabilities in the US have licenses compared to 91.7% of people without disabilities.

## People outside cars are at the most risk.

In the US, pedestrian fatalities have risen 77% since 2010 and bicycle fatalities have risen 44% since 2011. More people walking were killed by vehicles in 2022 than in any year since 1981. In spite of these striking numbers, research shows pedestrian and bike crashes are still consistently underreported.

## Multimodal design should provide alternatives to worsening congestion.

Each person driving is another car on the road adding to traffic. Multimodal design provides alternatives that can help mitigate congestion by getting more cars off the road.



### People have options for getting around besides driving on congested roads



### People who choose alternative modes take cars off the road

## Designing for all modes early can even help minimize project costs and cost increases by:



### Avoiding paying to redo work and retrofit infrastructure completed in earlier phases/projects



### Avoiding cost inflation from delayed construction

# How do I Include Multiple Travel Modes when Doing an ICE?

## Prioritize safety first and traffic flow second.

To design for safe and efficient movement of all modes when screening alternatives, in order of importance, *prioritize...*

1



### Safety of People Outside Vehicles

Safety for all people using the road should always be the goal. However, **keeping all users safe requires first designing for the safety of the most vulnerable road users.** People outside of vehicles, whether walking, rolling, or biking, are the most at risk of getting seriously injured or killed if involved in a car crash.

2



### Safety of People Inside Vehicles

Designing for the safety of all road users also means emphasizing safety for people driving or riding in vehicles. Designs should **prioritize preventing the types of crashes that cause the most serious and fatal injuries.**

3



### Traffic Flow

Multimodal design should ensure that users of **all modes can move efficiently** through an intersection. Designing for the movement of all modes can help reduce conflicts between modes that hinder both efficiency and safety.

## Think “Location, location, location”

Not all locations need to be inclusive of all modes, but intersections should safely incorporate all modes expected based on existing routes, destinations, and future plans. When screening alternatives, ask yourself, *is the intersection...*



On the pedestrian network?



On a bike route or shared use path?



On a transit route or near a transit stop?



Near destinations people would walk or bike to?



Where land use supports or is planned to support walking and biking?



Where it would be difficult and expensive to add multimodal provisions later?

# Multimodal Design Principles

There are a variety of proven intersection solutions that keep people walking, biking, and taking transit safe.

## Safety-focused principles



### Deter high speeds

**Speed is one of the largest threats to safety for all road users.** The higher the speed a pedestrian or bicyclist is hit at, the more likely they are to die. Speed also impacts the severity of car crashes and can be the difference between a fender-bender and a catastrophic fatal collision.

- Traffic calming methods like **raised crossings** and **narrowed lanes** can help discourage deadly speeds through an intersection. Specific intersection designs like **roundabouts** and **protected intersections** can also encourage reduced speeds and increased caution.
- **Signal timing** can also be used to keep cars from gaining too much speed between signals.



### Ensure visibility

Intersections need to be designed for **clear visibility and safe sight distances**. Drivers need to be able to see people crossing on foot or on bikes with enough time to stop, and other users such as transit riders, people walking, and people biking need to be able to see each other and drivers too.

- Removing parked cars, trees, and other visual obstacles closest to the corner (sometimes called “**daylighting an intersection**”) can help improve visibility.
- **Curb extensions** can also help in places with on-street parking by bringing the sidewalk as far out towards the intersection as possible and preventing illegal parking that would block sight lines.



Example of a raised crossing. Source: NACTO

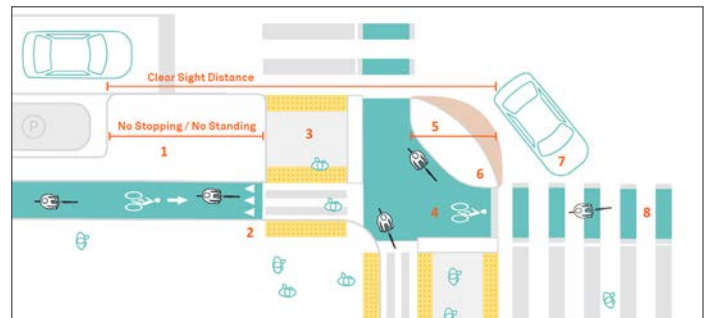
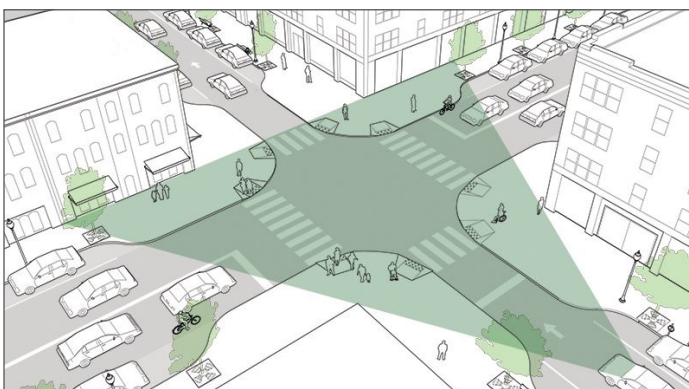


Diagram of a corner of a protected intersection. Source: NACTO



Example diagram of intersection visibility. Source: NACTO

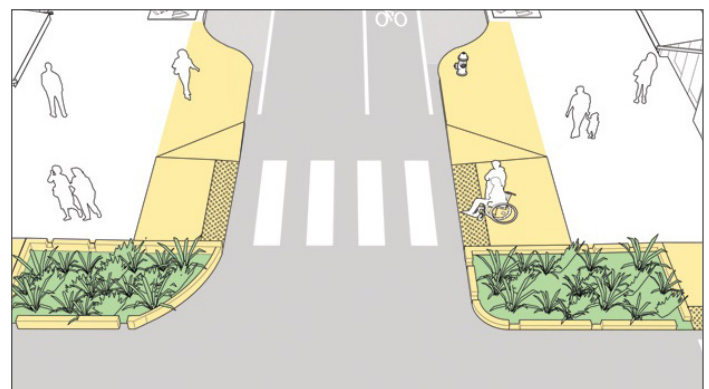


Illustration of a curb extension. Source: NACTO



## Safety-focused principles (continued)



### Prevent wide and fast turns

One in four vehicle-pedestrian crashes in the Triangle region occur when a car is turning at an intersection or driveway. Many intersections are designed with large radii, wide turning slip lanes, and medians that end far back from the intersection, allowing for and encouraging fast turns. However, **fast, sweeping turns can be deadly**, and make it harder for a turning driver to see or stop in time for a person crossing.

- **Avoid slip lanes**, as they encourage blind turns that put people crossing at risk. Where turn lanes exist, **require turning traffic to yield and avoid making turning vehicles merge through bike lanes**.
- **Minimize curb radii** to discourage wide and fast right turns by rebuilding the corner with a smaller radius, **curb extensions** on streets with parking, or by using **road markings** or **street art** to square off corners (preferably paired with bollards or planters for protection).
- **Centerline hardening**, typically extending the median or centerline out into an intersection with either concrete/planters or flex posts and modular curbs, can help discourage wide and fast left turns.



### Minimize turn conflicts

Turn conflicts can be extremely dangerous, especially when signals can give both a turning driver and crossing pedestrians or bicyclists the go ahead. **This puts people crossing directly in danger — even when both drivers and pedestrians/bicyclists follow signals.**

- **Ensure signal phases don't put people crossing in harm's way.** Make sure that turning traffic isn't given a green light that would conflict with a walk signal or bike green light.
- **Leading Pedestrian Intervals (LPIs)** and **Leading Bicycle Intervals (LBIs)** can be implemented at signals to give people crossing time to get farther across the street and be visible before vehicles can proceed.
- **Dedicated left-turn phases** and **restricting right-turns-on-red** can help avoid blind turns where drivers are looking more at oncoming traffic than people crossing on foot or bike.

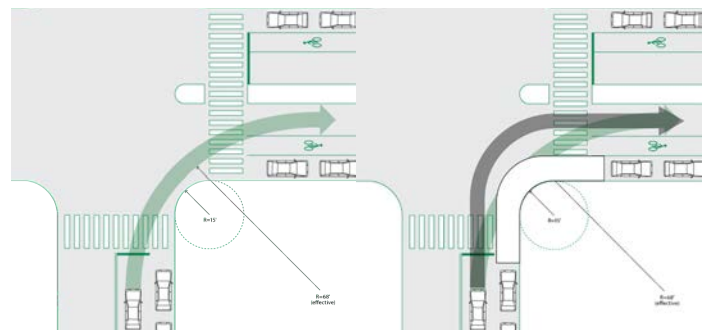
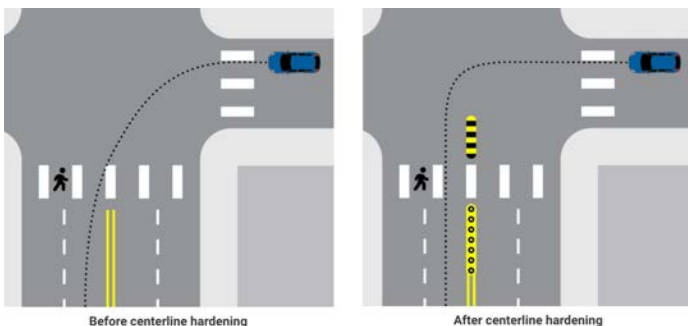


Diagram of centerline hardening. Source: IIHS

Example of using a curb extension to reduce turn radii. Source: NACTO

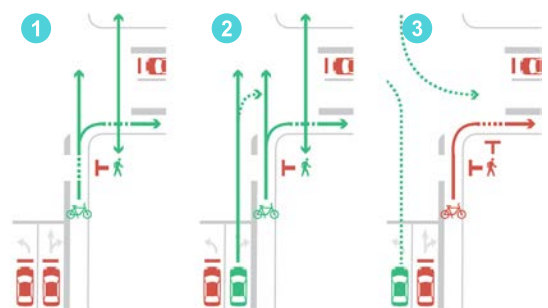
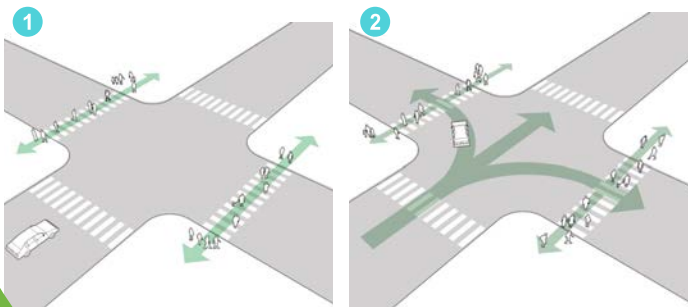


Diagram of a Leading Pedestrian Interval. Source: NACTO

Diagram of a Leading Bicycle Interval. Source: NACTO

## Flow-focused principles



### Time signals for flow of all modes

Traffic flow is just as important for transit riders and people walking, rolling, and biking as it is for drivers. **Make sure all modes can move reasonably quickly and safely through the intersection.** This may mean prioritizing people walking/biking and transit vehicles over longer phases for drivers in locations with heavy pedestrian traffic or along major transit routes.

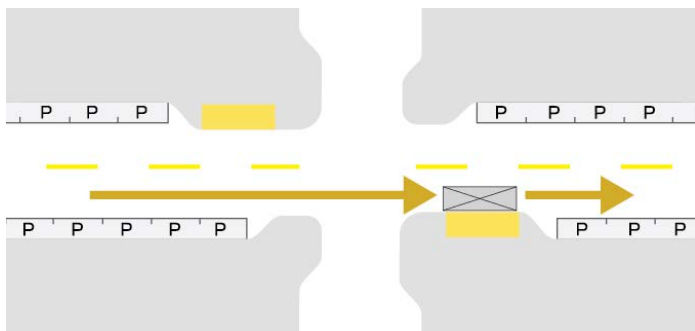
- **Keep signal phases reasonably short.** By cycling quickly through several shorter phases rather than longer ones, no one is left waiting too long for an opportunity to proceed. This also helps discourage jaywalking and crossing against the signal.
- **Give people walking enough time to cross.** While phases should be reasonably short, it's important to ensure people who may be slower or have a disability can still safely get across without rushing.
- Keep crossings for people walking and biking as **short and direct** as possible. Where roads are wide enough that it would be difficult for some to cross in one short signal phase, **provide pedestrian refuge islands** in the median that people can safely cross to and wait at for the next pedestrian signal.
- **Time signals as part of a corridor.** Timing consecutive signals to match an intended speed can help keep vehicles moving smoothly and reduce the number of red lights drivers hit if they're traveling at the designated speed.



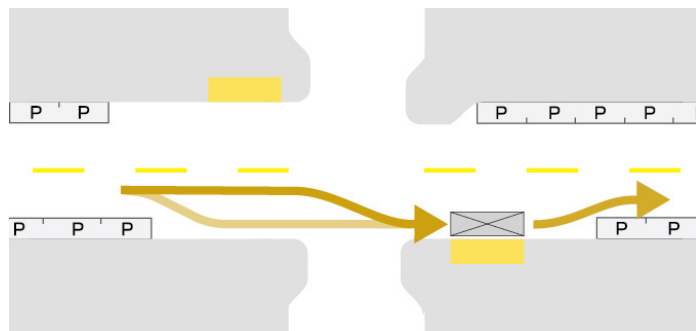
### Include space for transit stops where applicable

Where transit routes are planned, transit stops should be placed in locations where buses can stop without substantially delaying buses and cars, causing traffic backups, or impeding the safety of transit users in the boarding process.

- **In-lane stops on the far side of an intersection** are best in most cases for keeping buses moving efficiently. These stops can often be placed on a curb extension and work especially well where bus lanes exist.
- In cases where an in-lane stop would cause traffic to back up into the intersection, consider a **pull-out stop**. Pull-out stops are sometimes paired with shared right-turn lanes that allow buses to proceed straight through the intersection to the stop; however, pull-out stops can add additional delay for buses as they re-enter the traffic lane.
- **Where bike lanes and in-lane bus stops overlap, divert bike lanes behind the stop.** This ensures people biking can proceed without the risk of hitting someone boarding or deboarding a bus.



Example of a far side, in-lane transit stop. Source: NACTO



Example of a far side, pull-out transit stop. Source: NACTO

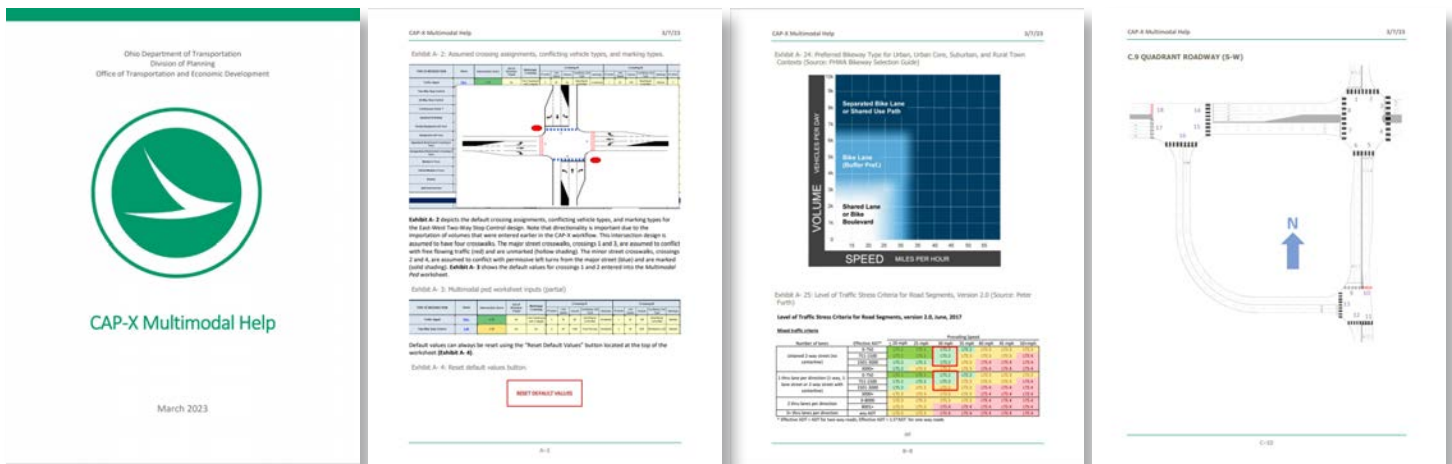
# Case Studies and Resources

The following section provides a sample of resources that can help in choosing intersection design options that incorporate the needs of road users of all modes. Some are specific to Intersection Control Evaluations, while others provide general best practices for designing safe and convenient streets for people walking, rolling, biking, and taking transit.

## ICE Examples

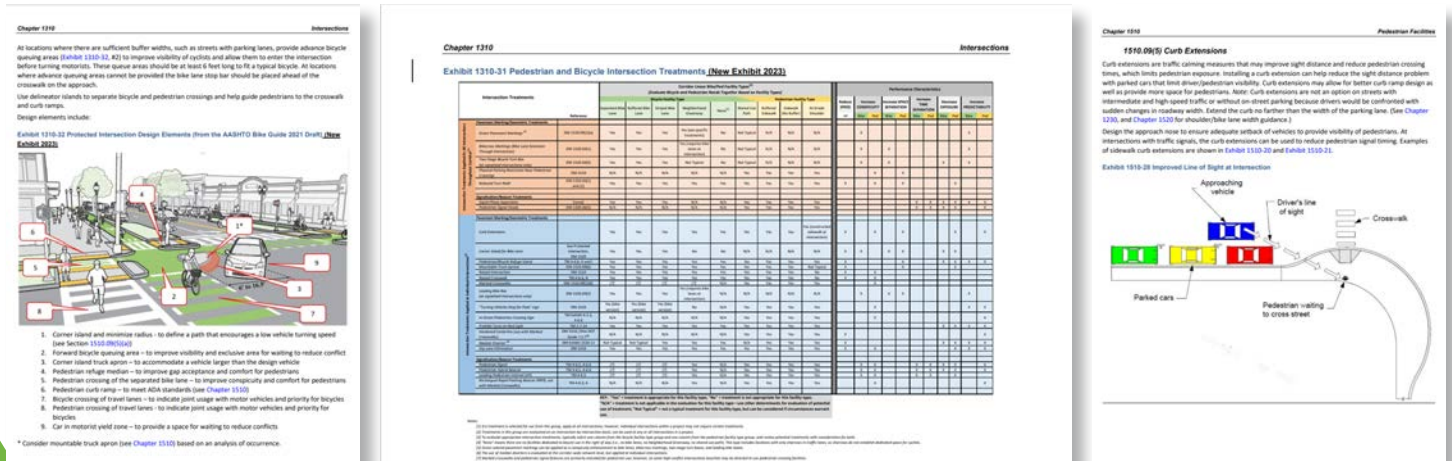
### Ohio DOT (ODOT) CAP-X Multimodal Help Guide

As part of their ICE process, ODOT provides a guide that details how to use the spreadsheet-based CAP-X (Capacity Analysis for Planning of Junctions) tool for multimodal analysis. CAP-X scores performance for pedestrians and bicyclists based on design elements such as crossing length and directness. It also includes a variety of common intersection design types with their default pedestrian crossing locations, as well as specific considerations for bicycles.



### Washington State DOT (WSDOT) Design Manual

The WSDOT ICE design manual includes guidance on accommodating other transportation modes by detailing considerations for speeds, cycle lengths, turning movements, and ways to measure pedestrian demand. The ICE section has a matrix of potential intersection design interventions based on the characteristics of the specific location. Other sections of the manual provide more specific design guidance for intersections that include pedestrian crossings, shared use paths, or bike routes.

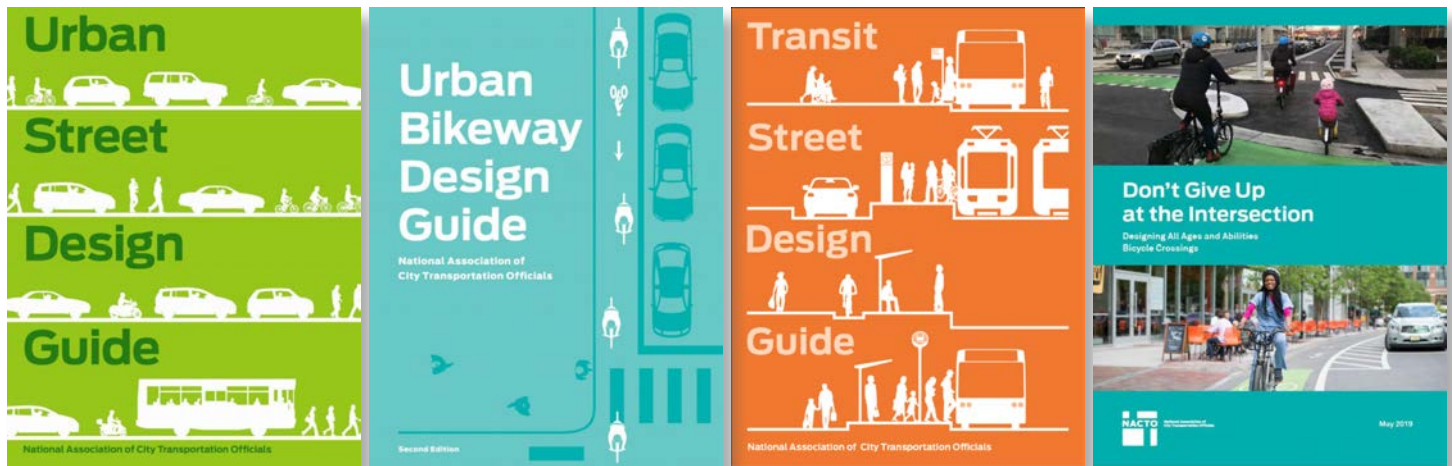




## Other Resources

### NACTO Design Guides

The National Association of City Transportation Officials (NACTO) provides a free series of design guides featuring options and best practices for urban streets, transit streets, urban bikeways, and more. Each guide includes intersection specific guidance.



### North Carolina DOT (NCDOT) Complete Streets Project Evaluation Methodology

This methodology lists a series of steps for selecting a facility type and a matrix of potential facilities based on anticipated bike and pedestrian need, demand, and safety risk. The guide also directs readers to facility specifications in the NCDOT Roadway Design Manual for sidewalks, shared use paths, and bike lanes.

### FHWA Separated Bike Lane Planning and Design Guide

The FHWA Separated Bike Lane Planning and Design Guide provides the tools to identify locations to include separated lanes, various intersection designs, midblock lane design considerations, and pavement markings.

## Sources

FHWA; Separated Bike Lane Planning and Design Guide; [https://www.fhwa.dot.gov/environment/bicycle\\_pedestrian/publications/separated\\_bikelane\\_pdg/separatedbikelane\\_pdg.pdf](https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/separated_bikelane_pdg/separatedbikelane_pdg.pdf)

NACTO; Transit Street Design Guide; <https://nacto.org/publication/transit-street-design-guide/>

NACTO; Urban Street Design Guide; <https://nacto.org/publication/urban-street-design-guide/>

NACTO; Urban Bikeway Design Guide; <https://nacto.org/publication/urban-bikeway-design-guide/>

NACTO; Don't Give Up at the Intersection; <https://nacto.org/publication/urban-street-design-guide/>

NCDOT; Complete Streets Project Evaluation Methodology; <https://connect.ncdot.gov/projects/BikePed/Documents/Complete%20Streets%20Evaluation%20Methodology.pdf>

ODOT; CAP-X Multimodal Help; [https://www.transportation.ohio.gov/wps/wcm/connect/gov/c03b7448-e2ee-4ba4-b2c0-5a7664221630/CAP-X+Multimodal+Help+File.pdf?MOD=AJPERES&CONVERT\\_TO=url&CACHEID=ROOTWORKSPACE.Z18\\_K91401S01H7F40QBNJU3SO1F56-c03b7448-e2ee-4ba4-b2c0-5a7664221630-orr52qR](https://www.transportation.ohio.gov/wps/wcm/connect/gov/c03b7448-e2ee-4ba4-b2c0-5a7664221630/CAP-X+Multimodal+Help+File.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTWORKSPACE.Z18_K91401S01H7F40QBNJU3SO1F56-c03b7448-e2ee-4ba4-b2c0-5a7664221630-orr52qR)

WSDOT; Design Manual; see chapters 1300, 1510, 1515, and 1520; <https://www.wsdot.wa.gov/publications/manuals/fulltext/M22-01/design.pdf>

Watch For Me NC; Crash Facts; <https://www.watchformenc.org/crashfacts/#:~:text=One%20in%20four%20vehicle%2Dpedestrian,Triangle%20happen%20in%20parking%20lots.>

Hedges & Company; How Many Licensed Drivers Are There in the USA?; <https://hedgescompany.com/blog/2018/10/number-of-licensed-drivers-usa/>

Bureau of Transportation Statistics; Travel Patterns With Disabilities; <https://www.bts.gov/travel-patterns-with-disabilities>

# Southeast Area Study Update

This booklet is a product of the Southeast Area Study (SEAS) Update and is intended to serve as a technical resource to help planners, engineers, and developers advance the *guiding principles of the study...*



## LIVABILITY

Enhance and promote our region's quality of life through transportation and land use decisions that equitably support public health, education, parks and recreation, public art, and local character.



## TRAFFIC FLOW

Make it easier to move within and through our region by reducing congestion and improving roadway operations.



## SUSTAINABLE GROWTH

Blend development decisions and transportation strategies to promote and sustain employment and population growth by offering housing and neighborhood choices to meet diverse needs while preserving the area's natural features.



## TRAVEL SAFETY

Promote a safer, more secure transportation system by reducing crashes, enhancing reliability and predictability, and improving emergency coordination.



## ACTIVE TRANSPORTATION

Integrate our transportation network to provide travel choices, especially walking and cycling, for all users, regardless of age and ability.



## NETWORK CONNECTIVITY

Link local and regional destinations through improved connections and enhanced integration among travel modes.



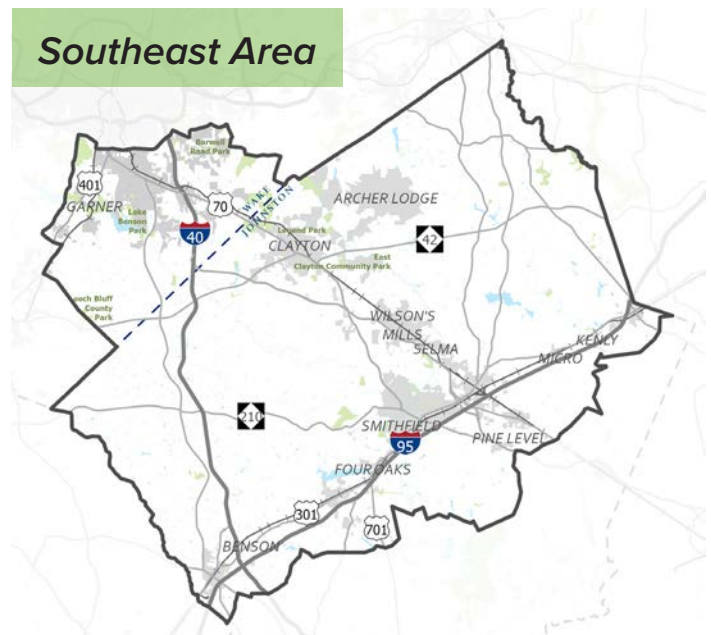
## ECONOMIC VITALITY

Grow our economy through a transportation network that connects residents to jobs, goods, services, and opportunities within and beyond our region.



## FREIGHT MOVEMENT

Support global competitiveness of our region through a transportation network that efficiently moves goods and services.



As the Southeast Area grows and changes, **multimodal design will be increasingly important to advancing these principles.** The SEAS Update includes recommendations for multimodal facilities and intersection improvements, and this toolkit provides guidance and resources for choosing alternatives that meet the needs of all users, whether driving, walking, rolling, biking, or taking transit.

Find out more about the SEAS Update at: [www.campo-nc.us](http://www.campo-nc.us)





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TRAVEL SAFETY



ACTIVE TRANSPORTATION



NETWORK CONNECTIVITY



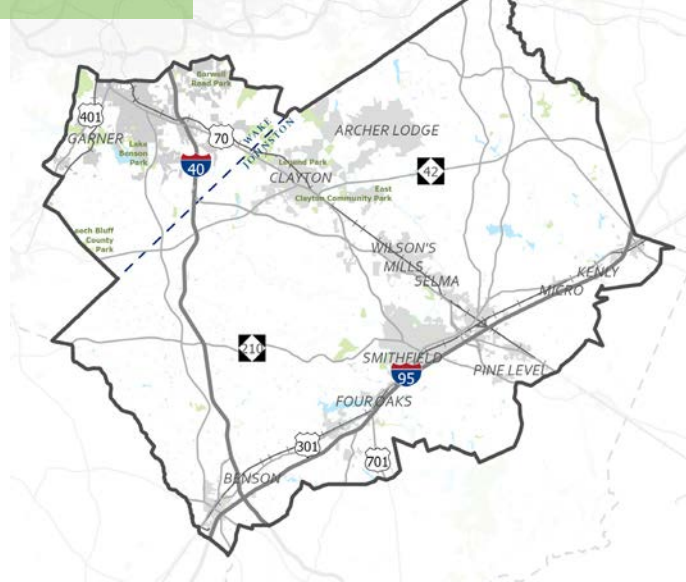
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#### Southeast Area



### Sources

FHWA; Separated Bike Lane Planning and Design Guide; [https://www.fhwa.dot.gov/environment/bicycle\\_pedestrian/publications/separated\\_bikelane\\_pdg/separatedbikelane\\_pdg.pdf](https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/separated_bikelane_pdg/separatedbikelane_pdg.pdf)

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WSDOT; Design Manual; see chapters 1300, 1510, 1515, and 1520; <https://www.wsdot.wa.gov/publications/manuals/fulltext/M22-01/design.pdf>

# SEAS

S O U T H E A S T A R E A S T U D Y

## UPDATE

Archer Lodge | Benson | Clayton | Four Oaks | Garner | Kenly |  
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Parts of Raleigh, Johnston County, and Wake County

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Photo: NCDOT

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An ICE is a two-step process of **screening** potential intersection design alternatives and **selecting** the ultimate preferred alternative.

## What About Other Modes?

The term “multimodal” includes a variety of road users in addition to the driver, including **people walking and rolling**, **biking**, and **taking transit**. As the Southeast Area grows and builds out plans for sidewalks, greenways, transit service, new roadways, and mixed-use centers, it will become increasingly important for **access**, **mobility**, and **safety** to include accommodations for multimodal users in roadway design.

Intersection Control Evaluations typically focus on safety and delay reduction benefits; however, some ICEs focus more heavily on delay first and vehicle safety second, and have very limited focus on how alternative designs impact the safety and convenience of multimodal users. **The needs of multimodal users must be considered from the beginning to ensure that intersections are safe and efficient for everyone.**

 Including multimodal accommodations in roadway and intersection projects at the outset of a project can also help avoid added costs from retrofitting infrastructure at a later date.

## How do I Include Multiple Travel Modes when Doing an ICE?

**Prioritize safety first and traffic flow second.**

To design for safe and efficient movement of all modes when screening alternatives, in order of importance, **prioritize...**

**Safety**, first of the people outside of vehicles who are most at risk of injury, followed by the safe movement of vehicles through the intersection.

**Efficient movement** of all modes that must travel through the space.








### Think “Location, location, location”

Not all locations need to be inclusive of all modes, but intersections should safely incorporate all modes expected based on existing routes, destinations, and future plans. When screening alternatives, ask yourself, *is the intersection...*

-  On the pedestrian network?
-  On a transit route or near a transit stop?
-  On a bike route or shared use path?
-  Near destinations people would walk or bike to?
-  Where it would be difficult and expensive to add multimodal provisions later?
-  Where land use supports or is planned to support walking and biking?

### Key multimodal principles for safety and efficiency

There are various proven solutions that keep people walking, biking, and taking transit safe. *Consider intersection solutions that...*

-  Deter high speeds
-  Minimize turn conflicts
-  Ensure visibility
-  Time signals for flow of all modes
-  Prevent wide and fast turns
-  Include space for and access to transit stops

## Why is it Important to Design Intersections for Multiple Modes?




**Infrastructure makes a difference.**

Between 2007 and 2021, roughly **98%** of pedestrian fatalities and serious injuries in the Southeast Area were in places **without sidewalks** and **100%** of bicyclist fatalities and serious injuries were in places **without bike facilities**.

**Intersection design is critical.**

Intersections are major conflict points between people walking and biking and fast-moving multi-ton vehicles. Intersections designed only for traffic flow limit where people can comfortably walk and bike and jeopardize the safety of people who have to cross the street.

**Multimodal design should...serve all kinds of users...**

-  People walking or rolling
-  Transit riders
-  People biking
-  Drivers



**...provide access and mobility to more people...**

-  People with no vehicle access
-  Children too young to drive
-  People in one vehicle households
-  Seniors no longer able to drive safely
-  People with disabilities that prevent driving

**...and provide alternatives to worsening congestion.**

-  People are given options for getting around besides driving on congested roads
-  People who choose alternative modes free up space on the road for others

**Designing for all modes early can even help minimize project costs and cost increases by:**

-  Avoiding paying to redo work and retrofit infrastructure completed in earlier phases/projects
-  Avoiding cost inflation from delayed construction

**E**

**SEAS**

S O U T H E A S T   A R E A   S T U D Y

**U P D A T E**

# **APPENDIX E:**

## US 70/NC 42/Ranch Road Hot Spot Memo



**MEMORANDUM**

To: Gaby Lontos-Lawlor, AICP  
CAMPO

From: Samantha Borges, AICP  
Kimley-Horn and Associates, Inc.

Date: December 1<sup>st</sup>, 2023

Subject: CAMPO SEAS Update – Hot Spot Study: US 70 Business at NC 42 East/Future Ranch Road (Rose Street)

**Introduction**

As part of the preparation of the Capital Area Metropolitan Transportation Organization (CAMPO) Southeast Area Study Update (SEAS), several Special Study intersections (also referred to as “Hot Spots”) were identified for preliminary analysis. Locations were initially identified based on crash rates and other safety considerations including railroad crossings, local transportation/land use plans, and transportation equity considerations. Additional locations were then considered based on feedback from the project’s Core Technical Team (CTT), development trends, planned transit, and existing/ongoing roadway projects.

Based on feedback from CAMPO, the following Hot Spot location was identified for evaluation as part of the SEAS update:

**Location: US 70 Business at NC 42 East/Future Ranch Road (Rose Street)**

Consistent with the goals for the SEAS Update, review of this Hot Spot location is intended to evaluate the feasibility of improvements and concepts to guide future improvements in the study area. It is anticipated that future development and projects around this intersection will require additional, specific evaluations, but this evaluation is expected to provide an appropriate framework for consideration.

**Hot Spot Location: US 70 Business at NC 42 East/Future Ranch Road (Rose Street)**

Objective: Develop potential interchange configurations that grade separate the railroad crossing and identify probable impacts to existing and future surrounding properties.

**CURRENT CONFIGURATION**

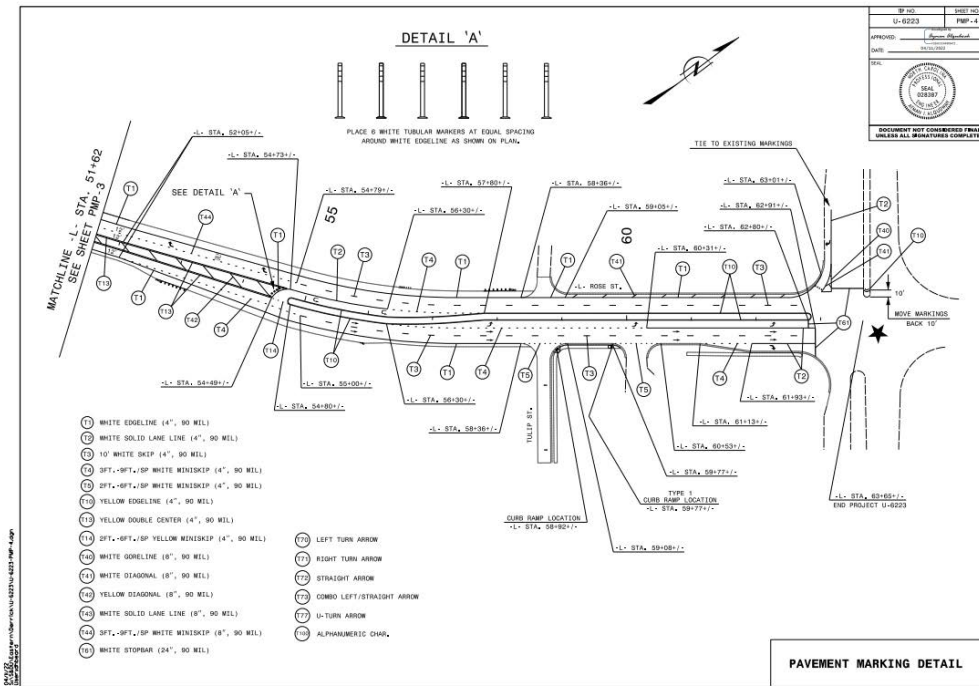


The intersection of US 70 Business at NC 42 East/Rose Street is a “traditional” signalized four-way intersection. At this location, the US 70 Business is a four-lane median-divided roadway with exclusive left- and right-turn lanes onto NC 42 East and Rose Street. Dual eastbound left-turn lanes are provided onto NC 42 East and a single westbound left-turn lane is provided onto Rose Street. Both westbound and eastbound US 70 Business have right turn lanes onto NC 42 East and Rose Street; however, the westbound right turn lane onto NC 42 East is a slip lane with a yield while the eastbound right turn lane onto NC 42 East is a slip lane with a stop sign.

eastbound right turn lane onto Rose Street requires a full stop at the intersection. The right turn lane onto Rose Street is expected to be upgraded to a slip lane with the construction of the Ranch Road extension project (U-6223).

NC 42 East is also a four-lane divided roadway at this location, with an exclusive left-turn lane onto US 70 Business eastbound towards Smithfield and Selma. However, only one lane continues straight onto Rose Street, while the rightmost lane turns into a free-flowing merge lane merging onto US 70 Business westbound towards Garner and Raleigh. About 60 feet east of the intersection along NC 42 East is an at-grade railroad crossing with the H-Line corridor, which currently operates both Norfolk Southern freight traffic and Amtrak passenger trains *Carolinian* and *Silver Star* daily. This portion of NC 42 East is expected to remain mostly unchanged with the construction of the Ranch Road extension project (U-6223).

Rose Street is a three-lane roadway approaching this location, with exclusive left and right turn lanes onto US 70 Business and one through-lane that continues onto NC 42 East. However, the Ranch Road extension project (U-6223) would widen what is now Rose Street (to become part of Ranch Road upon the completion of the extension) to a four-lane divided roadway with two lanes continuing straight onto NC 42 East towards Wilson and exclusive left and right turn lanes onto US 70 Business.



*Pavement marking details from the under construction Ranch Road extension project (U-6223). The pictured roadway will replace the existing Rose Street*



The area surrounding the US 70 Business/NC 42 East intersection is low-density. While the west and south quadrants are mostly single-family residential, there is currently a Sheetz gas station and convenience store in the south quadrant and a warehouse belonging to Guy C. Lee Building Materials in the north quadrant, north of the tracks.

### **SPECIAL STUDIES CONSIDERATIONS**

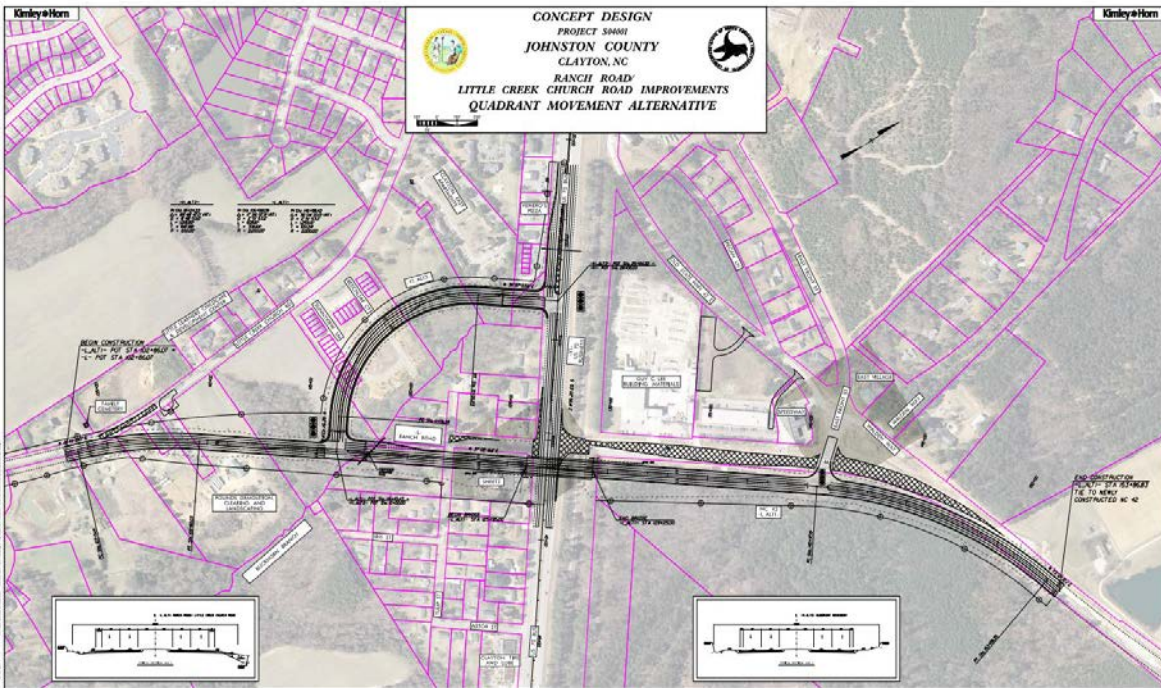
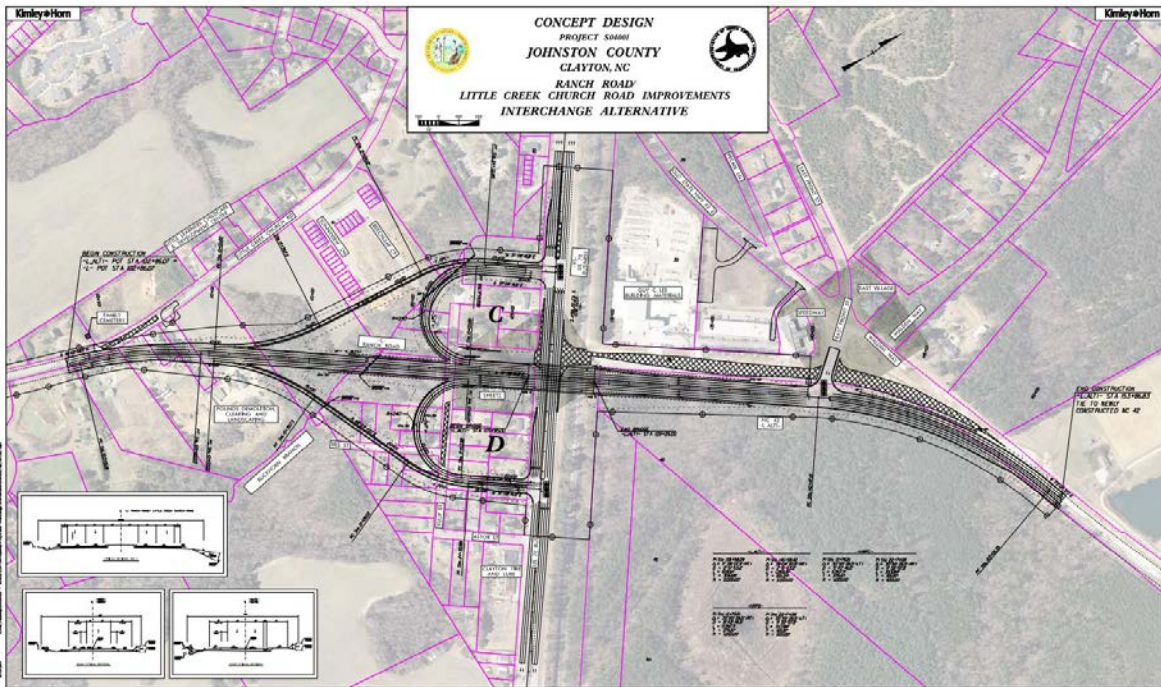
This intersection is planned to be developed through three phases. The first phase, currently under construction, is the aforementioned Ranch Road extension project (U-6223), which will extend/realign Ranch Road to connect to NC 42 East at US 70 Business to create a direct connection between NC 42 and the US 70 Clayton Bypass, along with the realignment of Boling Street/Little Creek Church Road. The second phase, planned to occur in the second decade of the 2050 Metropolitan Transportation Plan (MTP), would widen Ranch Road between the US 70 Clayton Bypass and US 70 Business to four lanes built to state highway standards and officially reroute NC 42 along Ranch Road. The third phase, the focus of this Hot Spot Study, would be in the third decade of the 2050 MTP and would place an interchange and rail grade separation at US 70 Business/NC 42 East once warranted.

As the area is rapidly changing and developing, this Hot Spot Study is intended to identify potential feasible interchange design alternatives and associated footprints for this location long-term. With the area's expected growth, it's critical to ensure that development does not impede the ability to construct the interchange in the future. This study is also considering impacts to existing and planned development including surrounding properties, a potential Aldi development in the northwest corner of the intersection, and planned transit expansion of the Southern Corridor Rapid Bus Extension and the Greater Triangle Commuter Rail.

### **Previous Study**

NCDOT conducted a feasibility study for the US 70 Business/NC 42 East intersection in 2017. The study resulted in three alternative concepts (two grade separated and one at-grade intersection). The two grade separated alternatives, a half-clover interchange and a quadrant movement design, are pictured on the following page.

Both grade-separated designs would require significant impact to the Sheetz property to realign the roadway and construct the bridge over US 70 Business and the H-Line railroad tracks. The half-clover concept would heavily impact the neighborhood of homes to the bridge's east and west along Tulip Street. The quadrant movement alternative minimizes impacts to properties east of the bridge but would have greater impact on townhomes built off of Little Creek Church Road.



US 70 Business/NC 42 alternative concepts from 2017 NCDOT feasibility study



**OTHER ROADWAY PROJECT CONSIDERATIONS**

**Clayton Southern Connector**

The longstanding Clayton Southern Connector project proposes a two-lane road connecting across southern Clayton between Guy Road/NC 42 and the Ranch Road extension using realigned portions of Dairy Road and a mostly new roadway between subdivisions and over Little Creek. The project is included in the CAMPO 2050 MTP with a horizon year of 2050.

The project was originally shown ending at the US 70 Business/NC 42 East intersection in the 2013 Johnston County CTP and 2017 SEAS but has since been adjusted in the 2050 MTP to reflect the Ranch Road extension connecting to NC 42 instead. However, the project as shown in the 2050 MTP still appears to conflict with the Little Creek Church Road/Boling Street realignment within the Ranch Road extension project. Within SEAS Update recommendation mapping, this was loosely adjusted to have the Southern Connector intersect with the Ranch Road extension further west from the Boling Street/Ranch Road intersection; however, further design/engineering would be needed to refine the alignment between Avondale Drive and the Ranch Road extension.

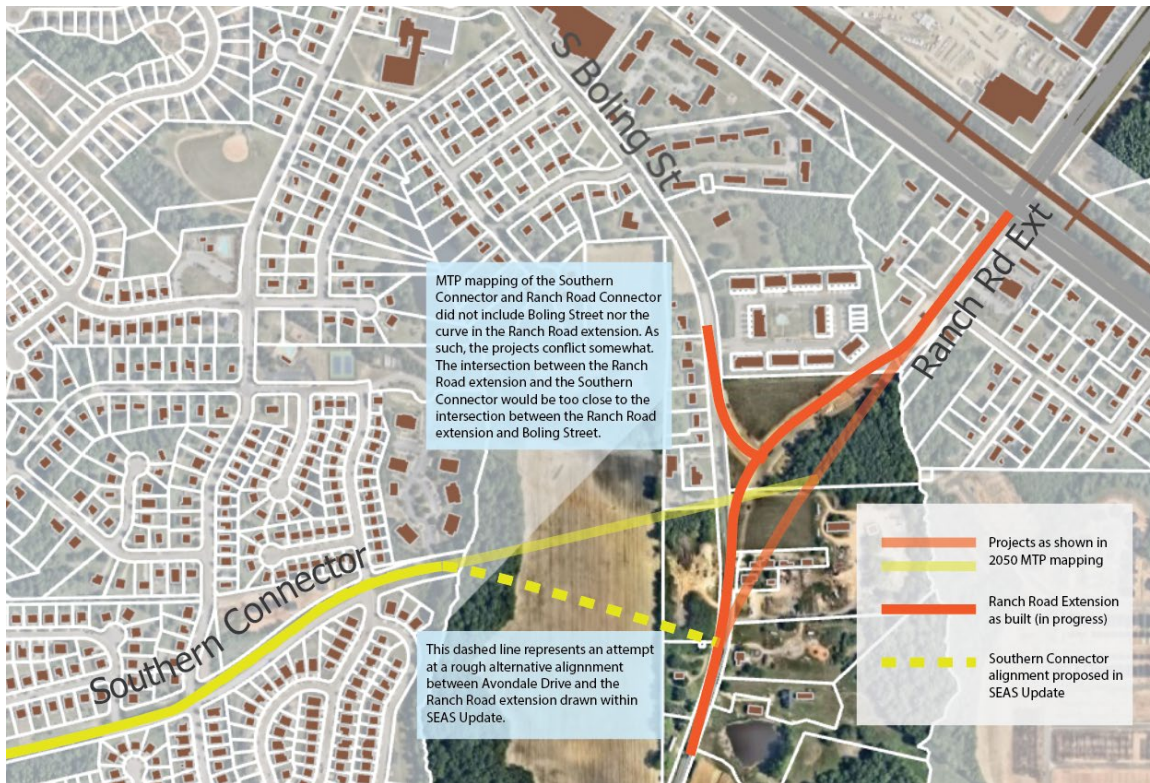


Diagram showing conflict between the Ranch Road Extension and the 2050 MTP version of the Clayton Southern Connector. Draft SEAS Update recommendations include a suggested modified alignment to address this, but further design/engineering is needed to refine alignment



**Clayton Northern Connector**

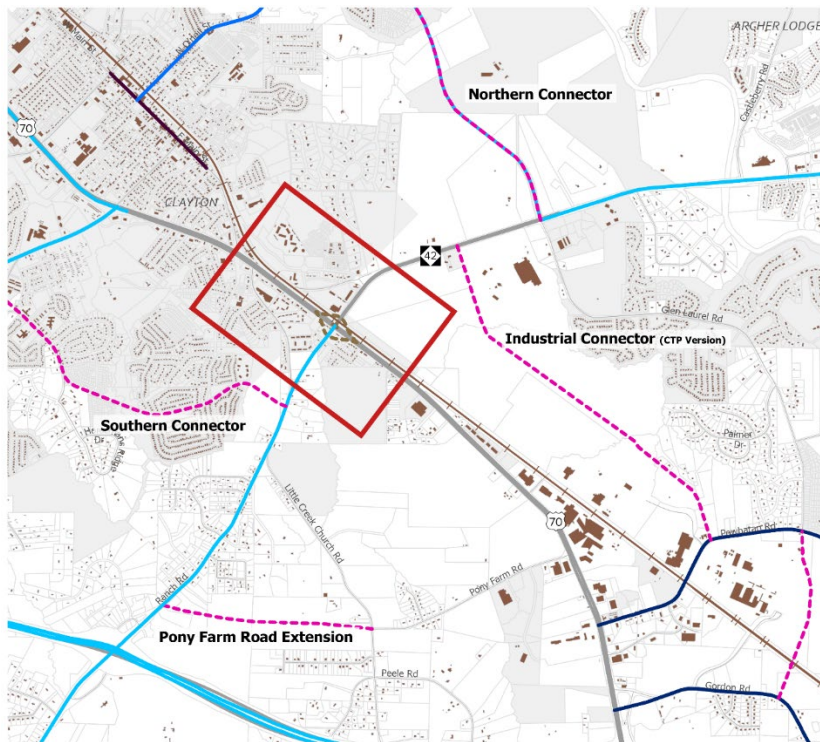
Another longstanding project, the Clayton Northern Connector project proposes a connection across northern Clayton using a realigned Covered Bridge Road and a new location roadway from O’Neil Street to the intersection of NC 42 East/Glen Laurel Road east of the US 70 Business at NC 42 hot spot. The 2050 MTP shows initial construction as a two-lane road with a horizon year of 2040, with a widening to four lanes in the horizon year of 2050.

**Clayton Industrial Connector**

A version of the Clayton Industrial Connector was brought forward from the 2013 Johnston County CTP as a draft SEAS Update recommendation. The roadway as proposed would connect NC 42 East and Powhatan Road and be roughly midway between US 70 and Glen Laurel Road, connecting and providing an alternate connection in an effort to reduce traffic on NC 42.

**Extension of Pony Farm Road**

An extension of Pony Farm Road is included in SEAS Update draft recommendations to provide additional east-west connectivity across the area southeast of Clayton and reduce congestion on NC 42. As proposed, Pony Farm Road would be extended from Little Creek Church Road to Ranch Road north of the Ranch Road interchange on US 70 Bypass.

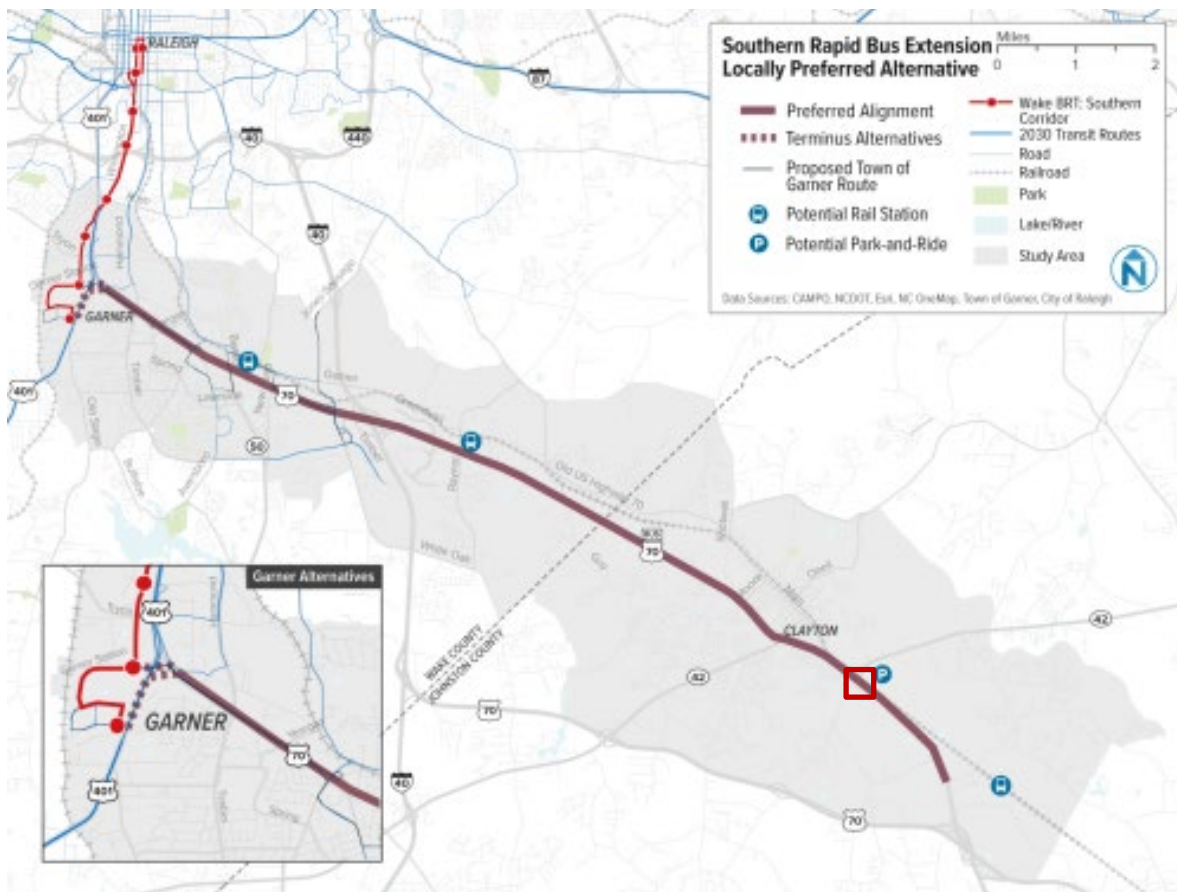


*Map showing locations of listed surrounding roadway projects, with general hot spot area shown*

## TRANSIT AND DEVELOPMENT CONSIDERATIONS

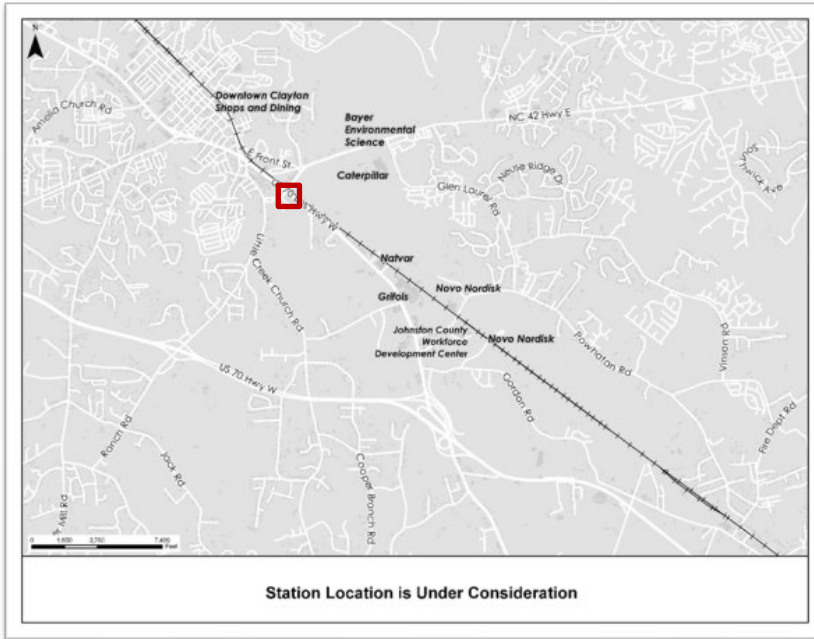
### Bus Transit

Since the intersection feasibility study and the completion of the previous SEAS in 2017, the vision and expectations for the area have changed substantially. The area is now expected to become a major transit node for Johnston County. Both the Southern Corridor Rapid Bus Extension and the Greater Triangle Commuter Rail are now planned to pass through this intersection. The Rapid Bus Extension would run along US 70 Business, while the commuter rail would run along the NCRR H-Line railroad tracks. While exact station locations have not been decided for either planned transit line, stations and a park and ride for both services are planned to be located in the vicinity of this intersection. The station would serve the residents and development in the surrounding area as well as commuters from Johnston County.








The Locally Preferred Alternative for the Southern Rapid Bus Extension, which would go through the US 70 Business and NC 42 East intersection (noted with red square).

# Clayton Station



As the proposed eastern terminus to this phase of the commuter rail corridor, a station in Clayton would be a transit gateway to the triangle for residents of Johnston County, in addition to serving major employers located close in proximity to this station.

## Station Area Highlights

-  Major employers including Caterpillar, Grifols, Novo Nordisk, Natvar
-  Convenient park and ride access from NC 42, US 70 Business, future I-42
-  Johnson County Workforce Development Center
-  Potential connection to planned bus route between Garner and Clayton
-  Parking is planned at this station

## Proposed Service

- 3 trains in each direction during am and pm peak times
- 1 mid-day train in each direction

*The Greater Triangle Commuter Rail's station fact sheet for the proposed Clayton Station, with the US 70 Business at NC 42 East intersection noted with a red square. The rail line would run along the NCRR H-Line tracks through the intersection, as pictured above.*



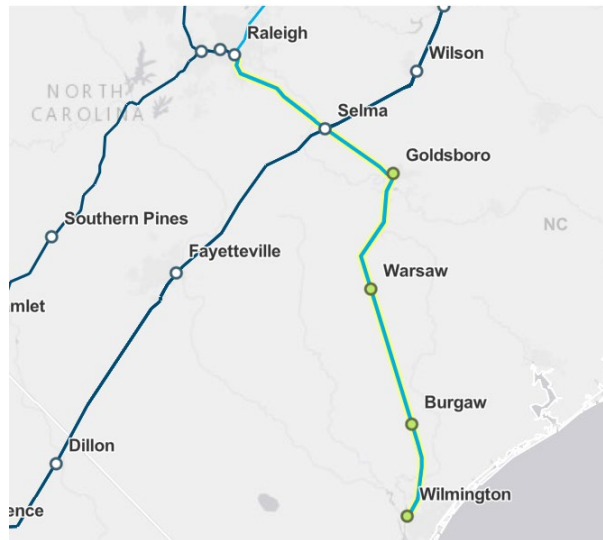
**Rail Transit**

With the railroad crossing at-grade along NC 42 East at this intersection, the potential for increased rail traffic within the upcoming decades is also a significant factor in planning for a grade separation. Currently, besides freight traffic, Amtrak’s *Carolinian* and *Silver Star* each pass through the intersection once daily in each direction. The proposed Greater Triangle Commuter Rail is planned to initially begin with fourteen passenger trains, three in each direction during the morning and evening rush hours and one in each direction midday.

CAMPO and the Fayetteville Area MPO (FAMPO) completed a study in 2020 that considered passenger rail service between Raleigh and Fayetteville, with the Eastern Corridor alternative (*pictured below*) using the H-Line tracks through the US 70 Business/NC 42 East intersection and stopping in Clayton. Amtrak also has proposed a new Raleigh-Wilmington passenger rail line within its recent AmtrakConnectsUS plan that would use the H-Line corridor through Clayton as well.



*A map from the Fayetteville-Raleigh Passenger Rail Feasibility Study. While an alternative has not been decided on, the Eastern Corridor alternative would use the H-Line tracks through Clayton, passing through the US 70 Business/NC 42 East intersection.*



*A map of Amtrak’s proposed Wilmington-Raleigh passenger rail line. While it would not stop in Clayton, it would also use the H-Line tracks through the US 70 Business/NC 42 East intersection between Raleigh and Selma.*

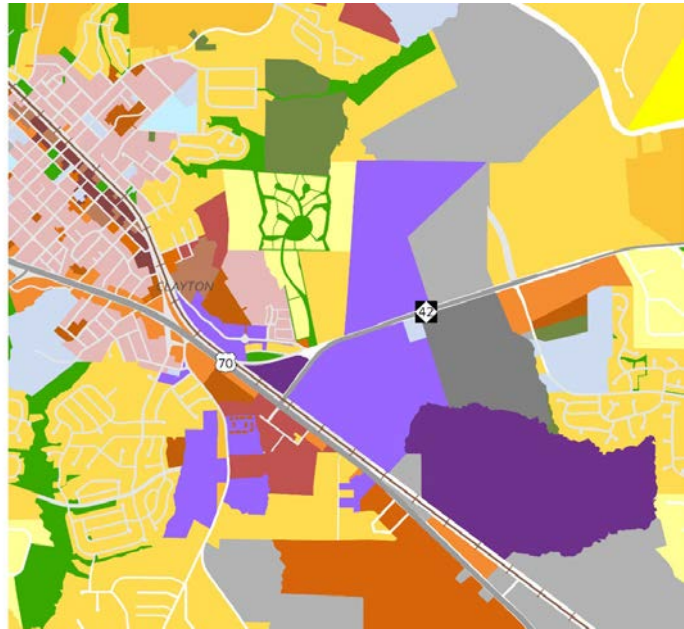
**Land Use and Development**

In recent years, the Town of Clayton and Johnston County have developed land use plans that identify transit-supportive land uses around the intersection.

In addition, some areas surrounding the site are already starting to see development. New apartments and townhomes are being built to the north, south, and west. Per Clayton planning staff, Aldi has also been pursuing construction of a grocery store in the northwest corner of the intersection, and as of April 28<sup>th</sup>, 2023, had not submitted a site plan but had attended a Pre-Application meeting and working with NCDOT and Clayton’s Engineering Department on access concerns. This increasing development pressure further emphasizes the need for the intentional planning of this Hot Spot location.



*New and recent residential development to the US 70 Business/NC 42 East intersection’s north, south, and west*



*Future land uses surrounding the US 70 Business/NC 42 East intersection based on existing plans. The browns and purples indicate Mixed-Use and Transit-Oriented Development respectively.*

## ALTERNATIVE RECOMMENDATIONS

Based on the known needs and constraints, two draft interchanges alternatives were created, one using a quadrant loop in the south quadrant and one widening Little Creek Church Road/Boling Street to operate as the interchange access road.

As with the previous NCDOT study, both draft alternatives would offset NC 42 to the southeast for grade separation and require significant impact to the Sheetz property to realign the roadway and construct the bridge over US 70 Business and the H-Line railroad tracks. Properties such as Guy C. Lee Building Supply would retain access via stub access roads using the old Right of Way.

### General Design Notes

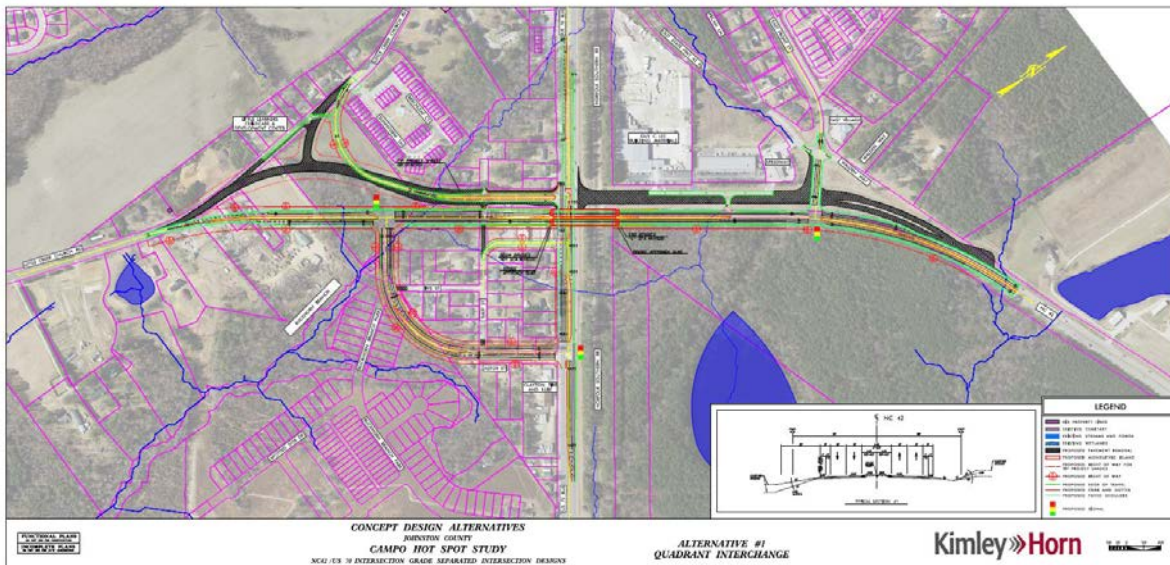
- The streams, ponds and wetlands shown in the concepts were sourced from publicly available data and do not represent a field survey of the features indicated.
- Hydraulic Design and Environmental permitting were not evaluated as part of the concept designs. Both concepts will likely have significant impacts to the stream labeled “Buckhorn Branch” and will likely require culvert design and Environmental Permits and associated environmental mitigation fees.
- There are several cemeteries in the vicinity of the project. One cemetery adjoins the public Right of Way on Little Creek Church Rd/Boling St.
- No vertical alignments, cross sections, or limits of construction impacts were evaluated for these concept designs.
- There has been no traffic analysis performed for either of these two alternatives.



**Alternative 1- Astor Street Quadrant Interchange**

The first alternative would create a quadrant interchange in the south quadrant of the intersection. The quadrant roadway ties into existing roads, partially using Astor Street to connect to US 70 Business.

This alternative would heavily impact the neighborhood of homes to the bridge's east and west along Tulip Street and Astor Street, as well as a set of homes at the end of Buckhorn Bridge Park; however, a new connection to Tulip Street southeast of the bridge maintains right in/right out access to/from US 70 Business for remaining homes within the quadrant loop. The Rose Street connection would partially remain north of the bridge, allowing right turns from eastbound US 70 Business and left turns from westbound US 70 Business, but restricting exiting traffic to right turn onto eastbound US 70 Business. The quadrant movement in Alternative 1 would result in significant impacts to the streams shown.





Project: CAMPO Hot Spot Study - NC 42 / US 70 Interchange - Quadrant Interchange Alternative

Prepared for: CAMPO

By: Kimley-Horn and Associates, Inc.

Date: 9/6/2023

**Opinion of Probable Construction Cost - Quadrant Interchange Alternative**

Line Item Number	Pay Item Description	Units	Quantity	Unit Price	Item Cost
1	MOBILIZATION	LS	1	\$ 3,250,000.00	\$ 3,250,000
2	CONSTRUCTION SURVEYING	LS	1	\$ 437,400.00	\$ 437,400
3	CLEARING AND GRUBBING	LS	1	\$ 130,000.00	\$ 130,000
4	GRADING	LS	1	\$ 1,350,000.00	\$ 1,350,000
5	REMOVAL OF EXISTING ASPHALT PAVEMENT	SY	35,900	\$ 18.00	\$ 646,200
6	ASPHALT CONC. BASE COURSE, TYPE B25.0C	TON	14,410	\$ 82.00	\$ 1,181,620
7	ASPHALT CONC. INTERMEDIATE COURSE, TYPE I9.0C	TON	11,080	\$ 80.00	\$ 886,400
8	ASPHALT CONC. SURFACE COURSE, TYPE S9.5C	TON	10,140	\$ 80.00	\$ 811,200
9	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22	TON	1,780	\$ 700.00	\$ 1,246,000
10	1'-6" CONCRETE CURB & GUTTER	LF	12,885	\$ 38.00	\$ 489,630
11	2'-6" CONCRETE CURB & GUTTER	LF	3,680	\$ 40.00	\$ 147,200
12	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)	SY	1,310	\$ 100.00	\$ 131,000
13	PROPOSED SIGNING	LS	1	\$ 20,000.00	\$ 20,000
14	THERMOPLASTIC PAVEMENT MARKINGS	LS	1	\$ 65,000.00	\$ 65,000
15	SIGNALS	LS	1	\$ 750,000.00	\$ 750,000
16	TRAFFIC CONTROL	LS	1	\$ 400,000.00	\$ 400,000
17	EROSION CONTROL	LS	1	\$ 1,390,000.00	\$ 1,390,000
18	DRAINAGE	LS	1	\$ 225,000.00	\$ 225,000
19	STRUCTURES	LS	1	\$ 12,000,000.00	\$ 12,000,000
20	RIGHT OF WAY (42 PARCELS)	ACR	15.33	\$ 300,000.00	\$ 4,599,000
21	CONTINGENCY (45%)	LS	1	\$ 10,038,000.00	\$ 10,038,000
<b>CONSTRUCTION SUB TOTAL</b>					<b>\$ 40,194,000</b>

**Opinion of Additional Project Cost**

Line Item Number	Pay Item Description	Units	Quantity	Unit Price	Item Cost
22	UTILITY RELOCATIONS	LS	1	\$ 12,060,000.00	\$ 12,060,000
23	DESIGN AND PERMITTING	LS	1	\$ 6,030,000.00	\$ 6,030,000
<b>SUB TOTAL</b>					<b>\$ 18,090,000</b>
<b>TOTAL</b>					<b>\$ 58,284,000</b>

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

The quantities and unit prices above only pertain to the proposed design shown on the figure dated May 19, 2023. This opinion of probable construction cost does not include preliminary cost assumptions for landscaping, easements, and associated widening of adjacent roadways.

Right-of-Way and Control-of-Access Unit Prices estimated using County GIS property data. Right-of-Way and Control-of-Access unit prices and quantities do not include easement costs.

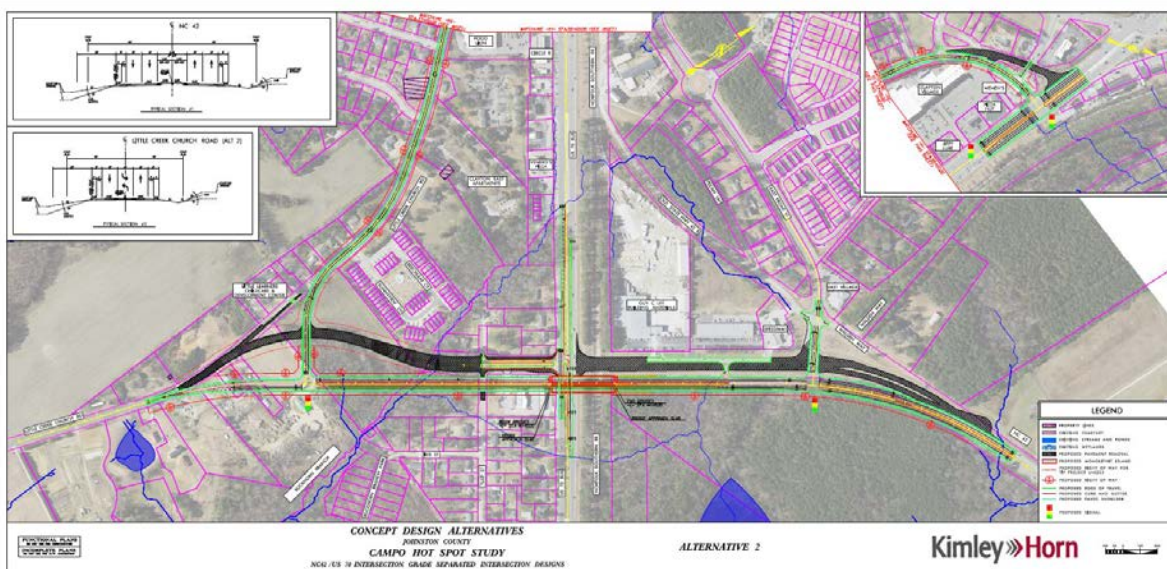
Utility relocations cost based on a percentage of the project construction cost.

Design and permitting based on a percentage project construction.

**Alternative 2- Little Creek Church Road/Boling Street Interchange Access Road**

The second alternative would use an improved Little Creek Church Road/Boling Street as the interchange access road connecting US 70 Business to NC 42. Boling Street would be widened from two to three lanes. In addition, the intersection between Boling Street and US 70 Business would be realigned to intersect at a wider angle and slightly further from the Main Street/US 70 Business intersection, with significant impacts to the Clayton Village and the Wendy’s properties.

While this alternative would cause additional impacts to properties along Boling Street, it would have significantly less impacts on the neighborhood of homes along Tulip Street, when compared to Alternative 1. The Rose Street connection would partially remain north of the bridge, allowing right turns from eastbound US 70 Business and left turns from westbound US 70 Business, but restricting exiting traffic to right turn onto eastbound US 70 Business.



Any improvements to Little Creek Church Road/Boling Street will likely result in impacts to the cemetery parcel adjoining the public Right of Way if the existing alignment of the road is maintained and widened symmetrically.

In addition, the realigned intersection of Boling Street/US 70 Business is approximately 700ft from the intersection of Main Street and US 70 Business. This proximity of the two intersections may cause issues with signal timing, queue clearing, and congestion. The signal at the Clayton Village driveway on US 70 Business would also need to be redesigned as part of Alternative 2 improvements.

Little Creek Church Road/Boling Street may require additional widening beyond what is shown in the concept designs to handle turning and through movement volumes if utilized as the connection between US 70 Business and NC 42. Additional traffic analysis is needed to determine final lane configurations.





Project: CAMPO Hot Spot Study - NC 42 / US 70 Interchange - Alternative 2

Prepared for: CAMPO

By: Kimley-Horn and Associates, Inc.

Date: 9/6/2023

**Opinion of Probable Construction Cost - Alternative 2**

Line Item Number	Pay Item Description	Units	Quantity	Unit Price	Item Cost
1	MOBILIZATION	LS	1	\$ 3,100,000.00	\$ 3,100,000
2	CONSTRUCTION SURVEYING	LS	1	\$ 415,600.00	\$ 415,600
3	CLEARING AND GRUBBING	LS	1	\$ 110,000.00	\$ 110,000
4	GRADING	LS	1	\$ 1,000,000.00	\$ 1,000,000
5	REMOVAL OF EXISTING ASPHALT PAVEMENT	SY	38,600	\$ 18.00	\$ 694,800
6	ASPHALT CONC. BASE COURSE, TYPE B25.0C	TON	11,510	\$ 82.00	\$ 943,820
7	ASPHALT CONC. INTERMEDIATE COURSE, TYPE I9.0C	TON	8,960	\$ 80.00	\$ 716,800
8	ASPHALT CONC. SURFACE COURSE, TYPE S9.5C	TON	6,880	\$ 80.00	\$ 550,400
9	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22	TON	1,420	\$ 700.00	\$ 994,000
10	1'-6" CONCRETE CURB & GUTTER	LF	10,972	\$ 38.00	\$ 416,936
11	2'-6" CONCRETE CURB & GUTTER	LF	956	\$ 40.00	\$ 38,240
12	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)	SY	1,267	\$ 100.00	\$ 126,700
13	PROPOSED SIGNING	LS	1	\$ 20,000.00	\$ 20,000
14	THERMOPLASTIC PAVEMENT MARKINGS	LS	1	\$ 57,000.00	\$ 57,000
15	SIGNALS	LS	1	\$ 1,000,000.00	\$ 1,000,000
16	TRAFFIC CONTROL	LS	1	\$ 575,000.00	\$ 575,000
17	EROSION CONTROL	LS	1	\$ 1,350,000.00	\$ 1,350,000
18	DRAINAGE	LS	1	\$ 185,000.00	\$ 185,000
19	STRUCTURES	LS	1	\$ 12,000,000.00	\$ 12,000,000
20	RIGHT OF WAY (34 PARCELS)	ACR	13.18	\$ 275,000.00	\$ 3,624,500
21	CONTINGENCY (45%)	LS	1	\$ 9,537,000.00	\$ 9,537,000
<b>CONSTRUCTION SUB TOTAL</b>					<b>\$ 37,456,000</b>

**Opinion of Additional Project Cost**

Line Item Number	Pay Item Description	Units	Quantity	Unit Price	Item Cost
22	UTILITY RELOCATIONS	LS	1	\$ 11,245,000.00	\$ 11,245,000
23	DESIGN AND PERMITTING	LS	1	\$ 5,625,000.00	\$ 5,625,000
<b>SUB TOTAL</b>					<b>\$ 16,870,000</b>
<b>TOTAL</b>					<b>\$ 54,326,000</b>

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

The quantities and unit prices above only pertain to the proposed design shown on the figure dated May 19, 2023. This opinion of probable construction cost does not include preliminary cost assumptions for landscaping, easements, and associated widening of adjacent roadways.

Right-of-Way and Control-of-Access Unit Prices estimated using County GIS property data. Right-of-Way and Control-of-Access unit prices and quantities do not include easement costs.

Utility relocations cost based on a percentage of the project construction cost.

Design and permitting based on a percentage project construction.

**TECHNICAL STAKEHOLDER JURISDICTIONAL MEETING**

On June 29, 2023, the project team held a virtual meeting to present the two alternatives to technical stakeholders in the hot spot study area including the Town of Clayton, Johnston County, and NCDOT.

**Attendees**

- Ben Howell – Town of Clayton
- Braston Newton – Johnston County
- Addison Gainey - NCDOT
- Charles Sorrell – NCDOT
- Stephen Yeung - NCDOT
- James Salmons – NCDOT/UCPRPO
- Gaby Lawlor – CAMPO
- Chris Lukasina – CAMPO
- Alex Rickard – CAMPO
- Samantha Borges – Kimley-Horn
- Allison Fluitt – Kimley-Horn
- Evan Parrott – Kimley-Horn

**Agenda**

- Attendee Introductions
- Hot Spot Background
- Alternatives Discussion

**Outcomes**

- Ben Howell from the Town of Clayton expresses initial preference for Alternative 1

**F**

**SEAS**

S O U T H E A S T   A R E A   S T U D Y

**U P D A T E**

# **APPENDIX F:**

## Bicycle and Pedestrian Analysis and Facilities





# Pedestrian Mobility

## Background

Existing sidewalks are found mostly in the urban areas of the SEAS, and are nearly nonexistent in the rural portions of this region. While sidewalk networks are extensive in the urban areas, gaps in the sidewalk network are still frequent. Over the past 15 years, most pedestrian fatalities and serious injuries have occurred in areas where pedestrian infrastructure does not exist.

## Sidewalk Gaps

Existing sidewalks were analyzed along arterial and collector roadways in the SEAS using CAMPO's sidewalk and NCDOT's roadway GIS data. Arterial and collector roadways that are missing sidewalks were selected and are displayed on the map on the following page.

While sidewalks are mostly found in the urban areas, there are still significant gaps in the urban sidewalk network, especially when considering higher traffic volume and higher speed roads such as the arterial and collector roadways that criss-cross each SEAS community:

- Urban Arterials: 75% are missing sidewalk
- Urban Collectors: 50% are missing sidewalk

As might be expected, arterial and collector roads in urban areas that are missing sidewalks tend to be found further away from a community's downtown core. Several of these 'sidewalk gap' corridors that could connect multiple neighborhoods or commercial areas of a SEAS municipality are listed below, and should be examined further in local planning as potential priority corridors for sidewalk construction:

- US 401, US 70, Garner Rd, Benson Rd, and Old Stage Rd through Garner
- Wilson's Mills Rd and Fire Dept Rd through Wilson's Mills
- US 301 through Selma, Smithfield, Four Oaks, Benson, Micro, and Kenly
- Covered Bridge Rd, Archer Lodge Rd, and Buffalo Rd through Archer Lodge
- US 70 and NC 42 through Clayton
- US 70 and Peedin Ave through Pine Level

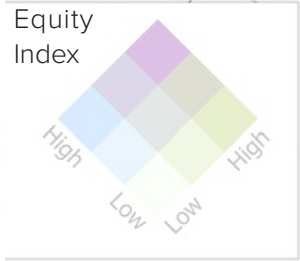
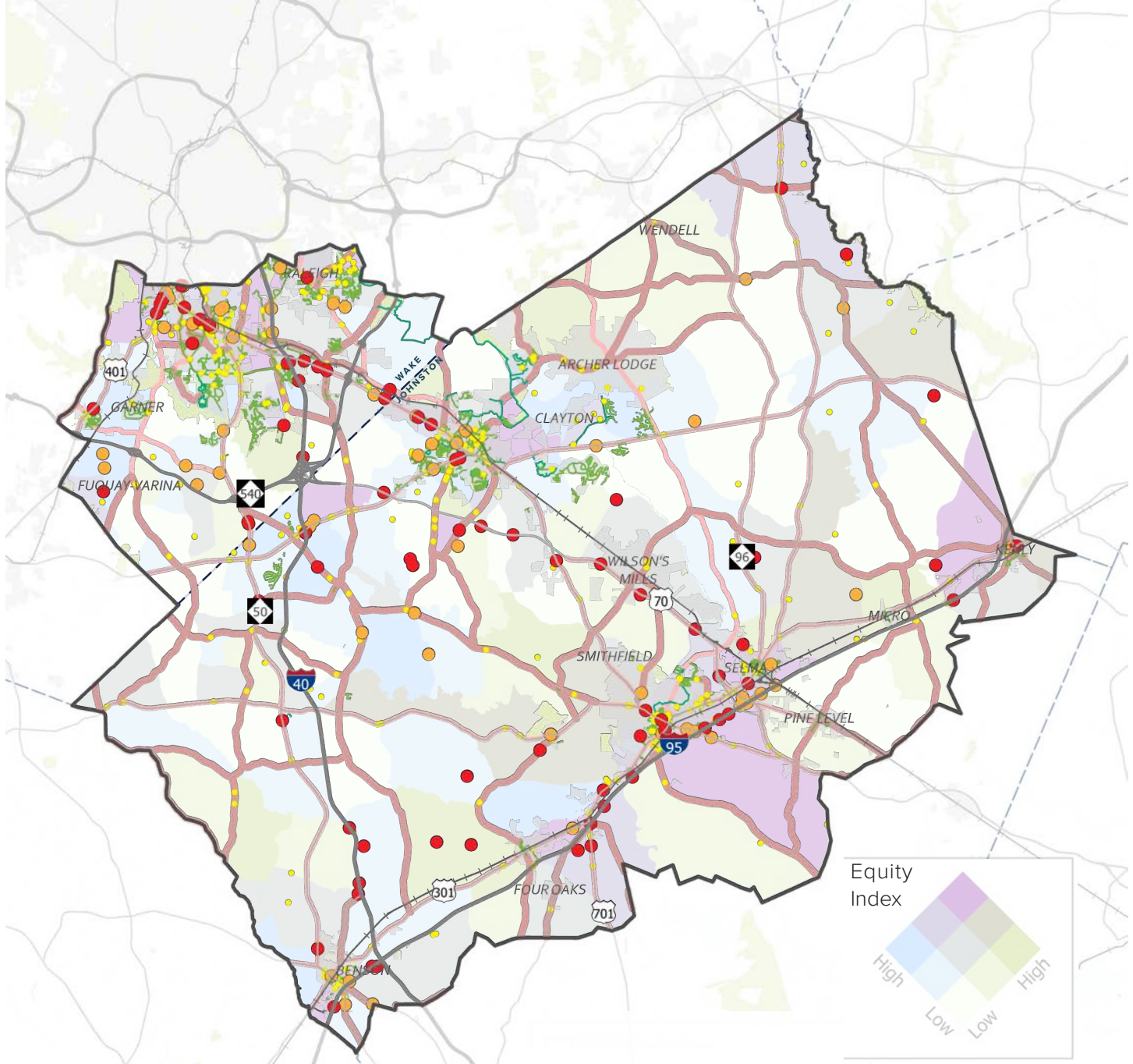
## Crash Data

Pedestrian crashes were analyzed using NCDOT's pedestrian crash data that is available from 2007-2021. Crashes were analyzed in relation to pedestrian infrastructure as well as roadway type, and are also displayed on the map on the following page.

From 2007-2021, there were **547 crashes** involving pedestrians.

**88%** (122 of 139) of all pedestrian fatalities and serious injuries occurred in places without sidewalks.

# Pedestrian Crashes (2007-2021)



SEAS Study Area	Missing Sidewalk on Arterial	<b>Pedestrian Injury Severity</b>
Existing Multiuse Path	Missing Sidewalk on Collector	Fatality
Existing Pedestrian Facility		Serious Injury
		Minor Injury or No Injury



# Bicycle Mobility

## Background

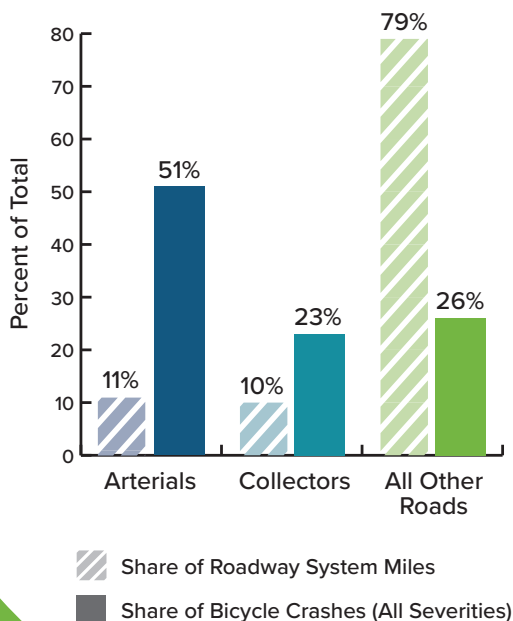
Existing bike facilities are found only in the shared use path network - most of which are part of the Neuse River Trail (which is part of both the East Coast Greenway and Mountains to Sea Trail). The Neuse River Trail connects the SEAS to the greater Raleigh and Wake County greenway network. No bike lanes are found in the SEAS bicycle data. All bicyclist fatalities and serious injuries have occurred in areas where bike facilities do not exist.

## Crash Data

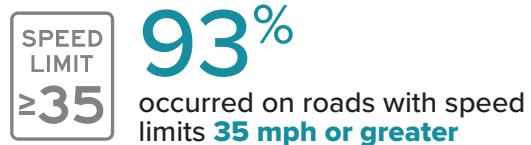
Arterials and collectors combined make up only 21% of the total roadway network in the SEAS area, but account for 74% of bicycle crashes. Arterials and collectors tend to have the highest traffic speeds and volumes, leading to uncomfortable conditions for bicyclists that have to use the roadway corridor where no separated bicycle facilities exist. Highest bicycle crash corridors include:

- Garner – US 70, Garner Rd, and Aversboro Rd
- Clayton – US 70
- Archer Lodge – Covered Bridge Rd
- Selma – Pollock St
- Smithfield – Brightleaf Blvd, Market St
- Benson – Main St
- Kenly – US 301

### Bicycle Crashes and Roadway Type



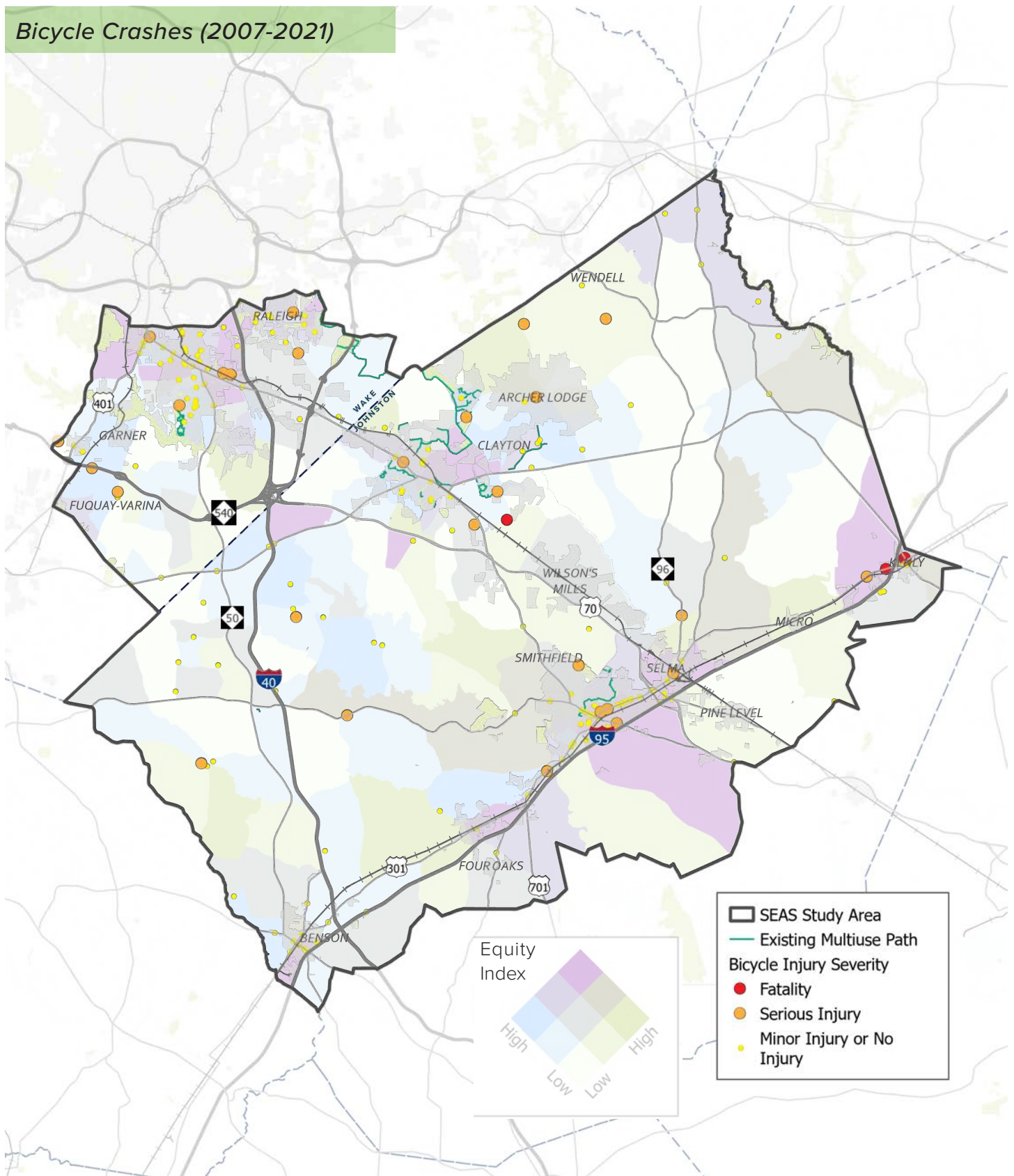
### Fatal and Serious Injury Bicycle Crashes and Speed Limit



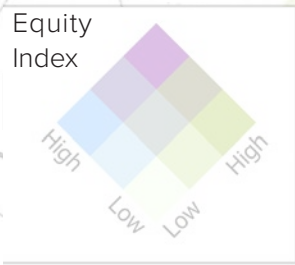
From 2007-2021, there were **209 crashes** involving bicyclists.

**100%** of all bicyclist fatalities and serious injuries (30) occurred in places without bike facilities.

# Bicycle Crashes (2007-2021)



- SEAS Study Area
- Existing Multiuse Path
- Bicycle Injury Severity**
- Fatality
- Serious Injury
- Minor Injury or No Injury

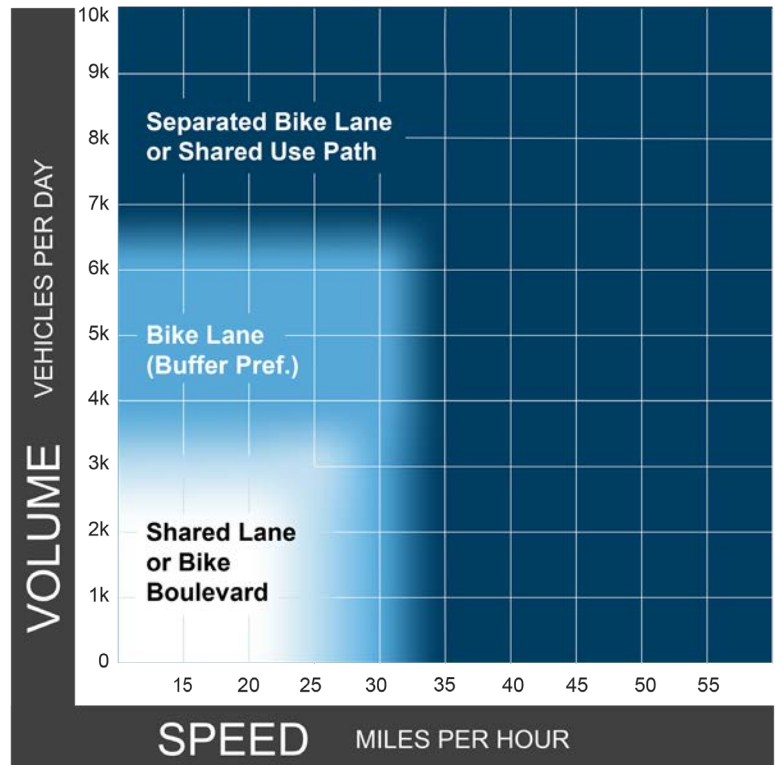


## Bicycle Facility Selection

As outlined in the Federal Highway Administration's *Bikeway Selection Guide*, different types of bikeways are better suited for different roadways based on considerations such as how fast and how frequently vehicles use the road and the roadway width.

The FHWA chart to the right and the table on the following page should be used by SEAS jurisdictions to guide recommendations for the preferred type of bikeway given roadway speeds and volumes. The chart is used by first identifying the daily traffic volume and travel speeds on the existing or proposed roadway, and then locating the facility types indicated by those key variables. Streets with higher speeds and volumes should have more separated or protected bikeway facilities.

The *FHWA Bikeway Selection Guide*, and the associated chart, are meant to be a starting point to select a bikeway facility type in conjunction with further contextual analysis and professional judgment.



The Preferred Bikeway Types chart shown above from the FHWA Bikeway Selection Guide provides a great resource when selecting the appropriate facility for varying roadway contexts.

Chart assumes operating speeds are similar to posted speeds. If they differ, use operating speeds rather than posted speed.



## Choosing an All Ages and Abilities Bikeway Type

This chart provides guidance in choosing a bikeway design that can create an all ages and abilities bicycling environment based on a street's basic design and motor vehicle traffic conditions such as vehicle speed and volume. This chart should be applied as part of a flexible, results-oriented design process on each road, alongside robust analysis of local bicycling conditions.

Users of this guidance should recognize that, in some cases, a bicycle facility may fall short of the all ages and abilities criteria but still substantively reduce traffic stress. Jurisdictions should not use an inability to meet the all ages and abilities criteria as a reason to avoid implementing a bikeway, and should not prohibit the construction of facilities that do not meet the criteria.

<i>Contextual Guidance for Selecting All Ages and Abilities Bikeways</i>				
<b>Roadway Context</b>				<b>All Ages and Abilities Bicycle Facility</b>
<b>Target Motor Vehicle Speed</b>	<b>Target Max. Motor Vehicle Volume (ADT)</b>	<b>Motor Vehicle Lanes</b>	<b>Key Operational Considerations</b>	
Any	Any	Any	Any of the following: high curbside activity, frequent buses, motor vehicle congestion, or turning conflicts	Protected Bicycle Lane
< 10 mph	Less relevant	No centerline, or single lane one-way	Pedestrians share the roadway	Shared Street
≤ 20 mph	≤ 1,000 - 2,000	No centerline, or single lane one-way	<50 motor vehicles per hour in the peak direction at peak hour	Neighborhood Bike Routes
≤ 25 mph	≤ 500 - 1,500	No centerline, or single lane one-way	<50 motor vehicles per hour in the peak direction at peak hour	Neighborhood Bike Routes
	≤ 1,500 - 3,000	Single lane each direction, or single lane one-way	Low curbside activity, or low congestion pressure	Conventional or Buffered Bicycle Lane, or Protected Bicycle Lane
	≤ 3,000 - 6,000			Buffered or Protected Bicycle Lane
	> 6,000			Protected Bicycle Lane
	Any			Multiple lanes per direction
> 26 mph	≤ 6,000	Single lane each direction	Low curbside activity, or low congestion pressure	Protected Bicycle Lane, or Reduce Speed
		Multiple lanes per direction		Protected Bicycle Lane, or Reduce to Single Lane & Reduce Speed
	> 6,000	Any	Any	Protected Bicycle Lane, or Bicycle Path
High-speed limited access roadways, natural corridors, or geographic edge conditions with limited conflicts		Any	High pedestrian volume	Bike Path with Separate Walkway or Protected Bicycle Lane
			Low Pedestrian volume	Shared-Use Path or Protected Bicycle Lane

Source: National Association of City Transportation Officials (NACTO) *Designing for All ages and Abilities*

# CAMPO SEAS Update: Bicycle and Pedestrian Plan Review

Agency/Organization	Plan Name	Year	Bike/Ped Infrastructure Recommendations
Archer Lodge	Town of Archer Lodge Bicycle and Pedestrian Plan	2020	<ul style="list-style-type: none"> <li>• Prioritized project recs (pg. 60)</li> <li>• Plan Priorities (from steering committee and public) (pg. 2):               <ul style="list-style-type: none"> <li>› Connecting neighborhoods, parks, and trails</li> <li>› Bicycling and walking safely around downtown and schools</li> <li>› Promoting bicycle and pedestrian safety education</li> <li>› Promoting expansion of bicycle and pedestrian amenities on existing roadways through local ordinances</li> </ul> </li> </ul>
Benson	Town of Benson Community Transportation Plan	2019* *not formally adopted	<ul style="list-style-type: none"> <li>• Sidepaths or sidewalks + bike lanes included with several planned roadway projects (pg. 15-30)</li> <li>• Bicycle, pedestrian, and MUP facility recs (pg. 31-37)</li> <li>• Bike/ped facility maps (Appendix Figure A3 and A4)</li> </ul>
CAMPO	Fayetteville-Raleigh Passenger Rail Feasibility Study	2020	None
Clayton	Clayton Pedestrian Plan	2022	Priority Projects (pg. 40-41)
Four Oaks	Report of Economic Development Assessment	2020	One of the main strategic goals is to create a more vibrant downtown (pg. 9) but no specific actions tied to bike/ped infrastructure, programs, or policy
Four Oaks	Downtown Streetscape Master Plan	2020	<ul style="list-style-type: none"> <li>• Opportunities identified include: wayfinding, streetscape improvements (including street trees, seating/amenities, ped safety), public spaces (pg. 19)</li> <li>• Master Plan Program Elements (pg. 21) include recommendation for continuous sidewalks, safer crosswalks with bulbouts, street trees/landscaping, ADA and accessibility improvements, public spaces with amenities like art and seating</li> <li>• Design concept (pg. 36) and phasing (pg. 44)</li> </ul>

Agency/Organization	Plan Name	Year	Bike/Ped Infrastructure Recommendations
Four Oaks	Land Use Plan Analysis and Update	2022	Analysis of previous land use plan includes recommendations to develop a sidewalk plan, implement policy including parkland dedication and connectivity requirements for subdivisions (pg. 32-39)
Garner	Garner Forward Comprehensive Plan	2018	<ul style="list-style-type: none"> <li>• Transportation chapter of the plan covers policy and program elements (pg. 83-86).</li> <li>• Infrastructure recommendations are in the Garner Forward Transportation Plan</li> </ul>
Garner	Garner Forward Transportation Plan	2018	<ul style="list-style-type: none"> <li>• Pedestrian and Bicycle recommendations (pg. 44 &amp; 50+)</li> <li>• Complete Streets cross section recommendations (pg. 42)</li> <li>• Other plan themes/key issues: improving trail/sidewalk system connections, transit, management of growth and development around I-540</li> </ul>
Garner	Town of Garner Transit Study	2020	None
Garner	Pedestrian Plan	Ongoing	In 2022, Garner was awarded a Multimodal Planning Grant from NCDOT IMD to develop a Pedestrian Plan. This process will likely be completed in 2023.
Johnston County	Johnston County Parks and Recreation Master Plan	2021	<ul style="list-style-type: none"> <li>• Greenways/walking trails were the highest priority from public engagement process (pg. 34)</li> <li>• Action Steps (pg. 56): Greenways/hiking/biking trails: "After the MST connection the most requested connections were: (1) Connecting Benson to Four Oaks, Four Oaks to Smithfield; (2) Connecting Selma to Smithfield [note connections from Selma to MST should be sought]; (3) Connecting Pine Level to Selma; (4) Connection between Greater Cleveland area and Clayton."</li> </ul>
Johnston County	Envision Johnston (Comprehensive Land Use Plan)	2021	Public input: "Preference for passive recreation, including greenways, trails, nature parks, game lands and fishing areas" (pg. 9)
Johnston County	Neuse River Trail Feasibility Study	2022	The recommended alignment to extend the Neuse River Trail from Clayton to Smithfield includes four segments/phases mostly along rural roadway corridors (sidepaths) and includes a Neuse River bike/ped bridge crossing near Selma.



Agency/Organization	Plan Name	Year	Bike/Ped Infrastructure Recommendations
NCDOT	Great Trails State Plan	2022	<ul style="list-style-type: none"> <li>• East Coast Greenway and Mountains to Sea Trail alignments go through the study area</li> <li>• Several proposed alignments come from Wake County Greenway Plan (trails near Garner, Clayton)</li> </ul>
NDCOT	WalkBikeNC 2013 (North Carolina Statewide Pedestrian and Bicycle Plan)	2013	State bike route NC 2B connects through the northern part of SEAS, and is currently unsigned.
Pine Level	Pine Level Comprehensive Land Use Plan	2022	<p>Several relevant goals contain objectives related to walking/biking/greenways (pg. 48-52)</p> <ul style="list-style-type: none"> <li>• Vibrant commercial areas that provide a variety of goods, services, entertainment options, and amenities (parking reductions)</li> <li>• A well-connected multi-modal transportation system</li> <li>• High-quality parks and recreational facilities that are accessible to all</li> <li>• Cultural, educational, recreational, and other amenities that contribute to the quality of life of Pine Level's citizens (includes investment in walking/biking/trails, walkability of new developments)</li> </ul>
Raleigh	Southeast Special Area Study Phase 2 Report	2020	Report describes public input related to decisions to extend the ETJ. This would have impacts on how/if/when greenways and walking and biking facilities in areas surrounding the Raleigh metro area could be developed (especially west of I-540); would affect Raleigh's ability to conserve land along the Neuse River.
Raleigh	Raleigh Community Climate Action Plan	2021	<p>Chapter 6 - Transportation and Land Use</p> <ul style="list-style-type: none"> <li>• Describes Alternative Mobility as a strategy for VMT reduction. Equity considerations (pg. 66)</li> <li>• Relevant action steps (pg. 70-71, 74-75)</li> </ul>
Raleigh	Raleigh Bike Plan (BikeRaleigh)	2016 (2020 update)	<ul style="list-style-type: none"> <li>• 10-year Prioritization Map (updated the recommendations section in 2020 to reflect completed and funded projects) in Chapter 4.</li> </ul>

Agency/Organization	Plan Name	Year	Bike/Ped Infrastructure Recommendations
Raleigh	Capital Area Greenway Master Plan Update	2022	<ul style="list-style-type: none"> <li>• New trail classification system (pg. 63-64)</li> <li>• Updated trail prioritization criteria and results; shift from viewing trails solely in terms of recreation, to a more holistic approach (pg. 73-76)</li> <li>• Emphasis on reinvestment in existing trails (pg. 83-89)</li> <li>• Recommendations and action items (near, mid, and long term) (pg. 97-117)</li> </ul>
Selma	Eastfield Conceptual Master Plan	2017	Proposed greenways shown in red on map
Selma	Economic Development Strategic Plan	2019	<ul style="list-style-type: none"> <li>• Strategies for promoting walking (esp. downtown) through programs, wayfinding (pg. 18)</li> <li>• Coordination with Eastfield development including greenways (pg. 22)</li> </ul>
Selma	Town of Selma Land Use Plan 2040	2021	<ul style="list-style-type: none"> <li>• Greenway and sidewalk recommendations, carried over from 2011 CTP (pg. 34)</li> <li>• Recommendation for the Town to develop a bike/ped plan (pg. 34)</li> <li>• Sidewalk recs map (pg. 35)</li> </ul>
Smithfield	Smithfield Town Plan	2019	<p>Volume 3: Transportation Element</p> <ul style="list-style-type: none"> <li>• Street typology (pg. 6)</li> <li>• Bicycle and Pedestrian Recommendations (pg. 18-21)</li> <li>• Policy recs and other studies (several relevant) (pg. 26)</li> </ul>
Triangle J Council of Governments	Close to Home: An Affordable Housing Analysis of The Triangle's Passenger Rail Corridor	2021	None
Triangle J Council of Governments	Opportunity Analysis (of Greater Triangle Commuter Rail Corridor)	2022	<ul style="list-style-type: none"> <li>• Does not make recommendations, but acknowledges key role that bike/ped facilities will play in passenger rail service. Opportunities inside station areas depend on safe, high quality sidewalks, intersections and bicycle/scooter facilities. Opportunities outside station areas but within the corridor depend on "first mile/last mile" bus service and safe bicycle/scooter facilities" (pg. 7)</li> <li>• The study names several "issues to consider" including equitable transit-oriented development and first mile/last mile investments (pg. 27)</li> </ul>

Agency/Organization	Plan Name	Year	Bike/Ped Infrastructure Recommendations
Wake County	2019 Community Health Needs Assessment	2019	None
Wake County	PLANWake Comprehensive Plan	2021	<ul style="list-style-type: none"> <li>• Performance metrics include increasing non-automotive trips and protecting open space (pg. 34)</li> <li>• Identifies "activity centers" best for mixed-use/walkable and transit-oriented development to occur (pg. 45)</li> </ul>
Wake County	Wake County Greenway System Plan	2018	<ul style="list-style-type: none"> <li>• Countywide Greenway System Map with proposed facilities (pg. 54)</li> <li>• Recommendations by project category (gaps, connections, longer term proposed trails) (pg. 60)</li> </ul>
Wake County	Wake County Transit Plan Update	2021	<ul style="list-style-type: none"> <li>• "The Wake County Transit Plan includes approximately 47 miles of varying levels of BRT-related infrastructure improvements." (pg. 22)</li> <li>• Near and Long Term Transit Corridors map (pg. 29)</li> </ul>
Wake County Public Schools	Capital Investment Plan Update	2022	None
Wilson's Mills	Town Plan 2040 Comprehensive Land Use and Master Plan	2019	<ul style="list-style-type: none"> <li>• Description of several planned sidewalk projects (top of pg. 19)</li> <li>• Adoption of new UDO mentioned several times; desire to encourage walkable/bikable growth in a few targeted areas</li> </ul>





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# **APPENDIX G:**

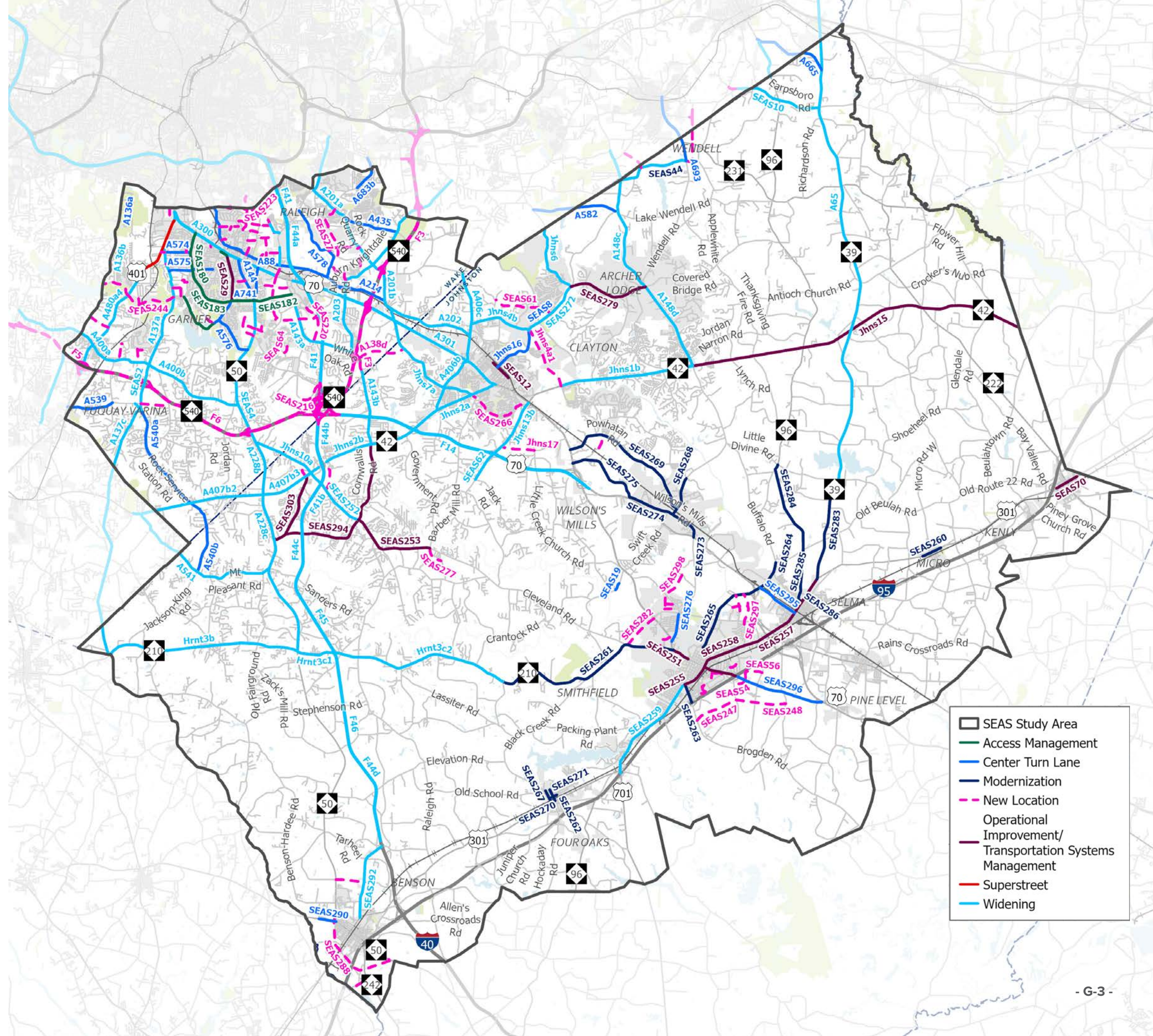
## Large Recommendations Maps





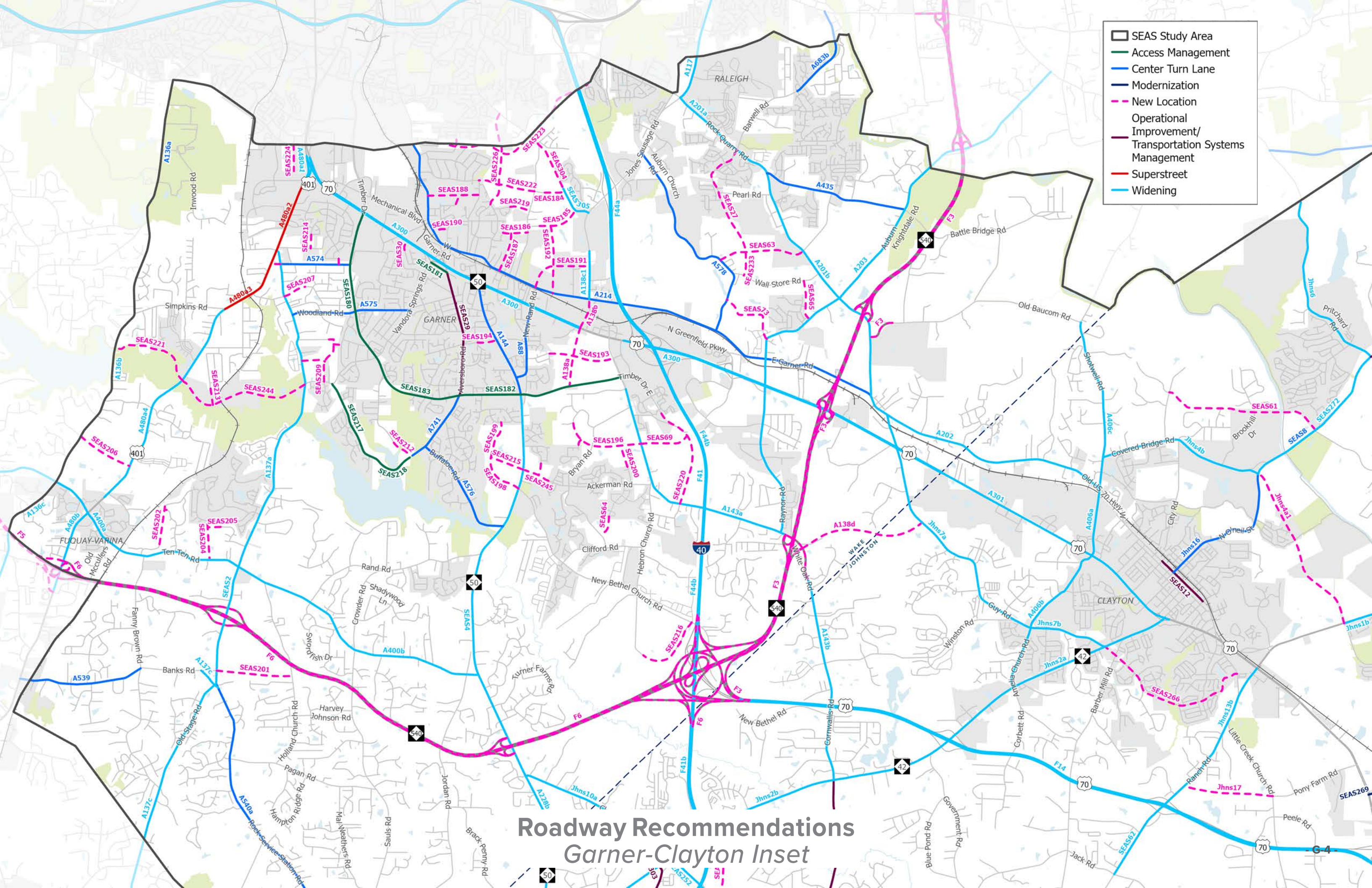
# SEAS UPDATE

## Roadway Recommendations



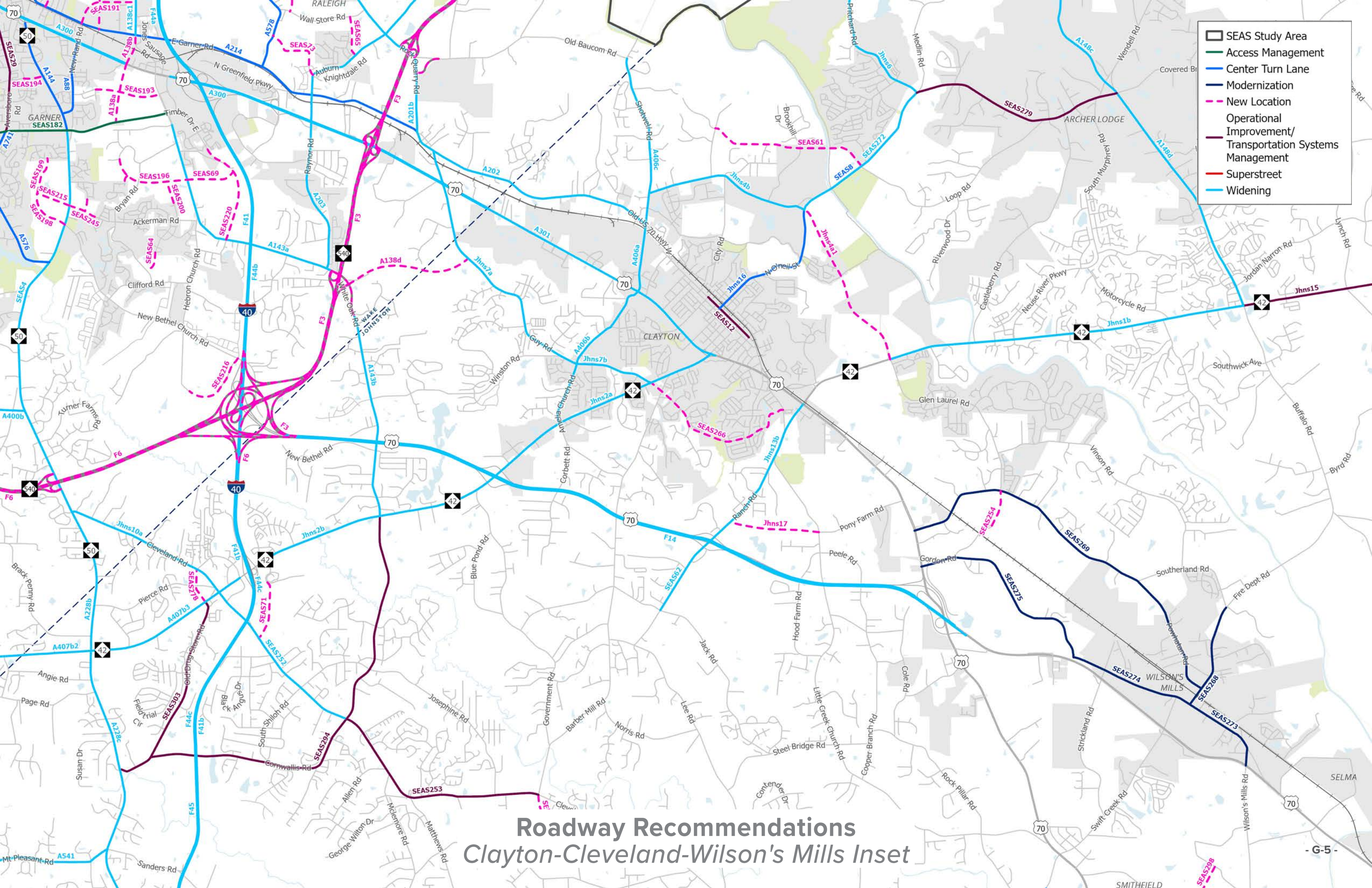


- SEAS Study Area
- Access Management
- Center Turn Lane
- Modernization
- New Location
- Operational Improvement/Transportation Systems Management
- Superstreet
- Widening



## Roadway Recommendations Garner-Clayton Inset

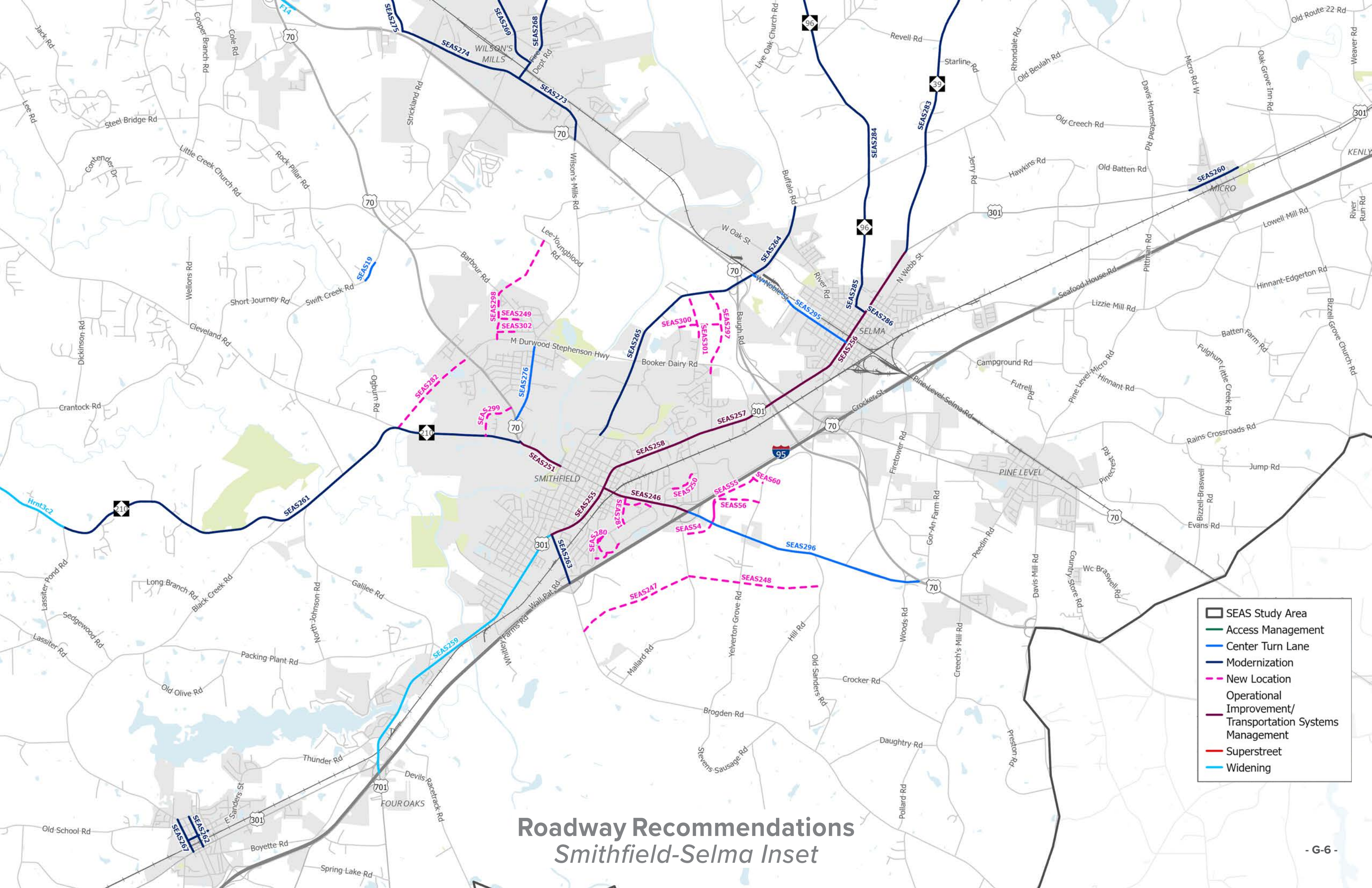




- SEAS Study Area
- Access Management
- Center Turn Lane
- Modernization
- New Location
- Operational Improvement/Transportation Systems Management
- Superstreet
- Widening

## Roadway Recommendations Clayton-Cleveland-Wilson's Mills Inset





# Roadway Recommendations Smithfield-Selma Inset

- SEAS Study Area
- Access Management
- Center Turn Lane
- Modernization
- New Location
- Operational Improvement/Transportation Systems Management
- Superstreet
- Widening



# SEAS UPDATE Roadway Recommendations

Project						Lanes		Multimodal					Other Information					
ID	Name	From	To	Improvement	Len. (Mi)	Exist	Prop	Side-walk	Wide Should.	Bicycle	Multi-use	Transit	Cost	Horizon	County	Municipality	MPO	TIP No.
A117	New Hope Rd	Old Poole Rd	Rock Quarry Rd	Widening	1.89	2	4	0	0	1	0	0	\$28,840,000	Mid-Term	Wake	Raleigh	CAMPO	
A136a	Lake Wheeler Rd	Tryon Rd	Penny Rd	Center Turn Lane	1.79	2	3	1	0	1	0	0	\$24,640,000	Near-Term	Wake	Wake County	CAMPO	
A136b	Lake Wheeler Rd	Penny Rd	Ten Ten Rd	Widening	3.54	2	4	1	0	1	0	0	\$51,070,000	Mid-Term	Wake	Wake County	CAMPO	
A136c	Lake Wheeler Rd	Ten Ten Rd	Hilltop-Needmore Rd	Widening	3.40	2	4	0	0	0	0	0	\$48,910,000	Mid-Term	Wake	Wake County	CAMPO	
A137a	Old Stage Rd	US 401	Ten Ten Rd	Widening	4.20	2	4	1	0	0	1	0	\$55,190,000	Near-Term	Wake	Garner; Wake County	CAMPO	
A137c	Old Stage Rd	Rock Service Station Rd	NC 42	Widening	3.55	2	4	0	0	0	1	0	\$42,970,000	Long-Term	Wake	Johnston County; Wake County	CAMPO	
A137d	Old Stage Rd	NC 42	NC 210	Widening	5.39	2	4	0	0	0	1	0	\$70,820,000	Long-Term	Wake	Wake County	CAMPO	
A138a	Jones Sausage Rd	US 70	Timber Dr Ext	New Location	0.74	0	4	0	0	0	0	0	\$15,160,000	Long-Term	Wake	Garner; Wake County	CAMPO	
A138b	Jones Sausage Rd	Garner Rd	US 70	New Location	0.38	0	4	1	0	1	0	1	\$31,960,000	Long-Term	Wake	Garner	CAMPO	
A138c1	Jones Sausage Rd	Amazon driveway	E Garner Rd	Widening	0.59	2	4	1	0	1	0	1	\$14,100,000	Near-Term	Wake	Garner; Wake County	CAMPO	
A138d	Escondido Farm Rd	White Oak Rd	Guy Rd	New Location	1.59	0	4	0	0	0	0	0	\$35,840,000	Long-Term	Johnston; Wake	Johnston County; Wake County	CAMPO	
A143a	White Oak Rd	US 70	NC 540	Widening	3.03	2	4	1	0	1	0	0	\$48,060,000	Mid-Term	Wake	Wake County	CAMPO	
A143b	Cornwallis Rd	NC 540	NC 42	Widening	2.54	2	4	0	0	0	1	0	\$40,530,000	Near-Term	Johnston	Johnston County	CAMPO	
A144	Garner Rd	US 70	Timber Dr	Center Turn Lane	1.44	3	3	1	0	1	0	1	\$21,900,000	Visionary	Wake	Garner	CAMPO	
A148c	Eagle Rock Rd; Buffalo Rd	Lake Myra Rd	Covered Bridge Rd	Widening	4.96	2	4	0	0	1	0	0	\$65,850,000	Long-Term	Johnston; Wake	Archer Lodge; Johnston County; Wake County	CAMPO	
A148d	Buffalo Rd	Covered Bridge Rd	NC 42	Widening	3.09	2	4	0	0	1	0	0	\$40,470,000	Visionary	Johnston	Archer Lodge; Johnston County	CAMPO	
A169d1	Eastern Wendell Bypass	Morphus Bridge Rd	NC 231	New Location	1.46	0	4	0	0	1	0	0	\$26,590,000	Visionary	Johnston	Johnston County; Wake County	CAMPO	
A169d2	Southern Wendell Bypass	NC 231	Wendell Rd	New Location	0.74	0	4	0	0	1	0	0	\$13,230,000	Mid-Term	Johnston	Johnston County	CAMPO	
A201a	Rock Quarry Rd	New Hope Rd	Battle Bridge Rd	Widening	1.44	2	4	1	0	0	1	1	\$23,560,000	Near-Term	Wake	Raleigh; Wake County	CAMPO	
A201b	Rock Quarry Rd	Battle Bridge Rd	E Garner Rd	Widening	3.22	2	4	1	0	0	1	1	\$52,860,000	Long-Term	Wake	Raleigh; Wake County	CAMPO	
A202	Garner Rd	Rock Quarry Rd	Shotwell Rd	Widening	3.20	2	4	1	0	0	1	0	\$42,310,000	Long-Term	Johnston; Wake	Clayton; Johnston County	CAMPO	
A203	Auburn-Knightdale Rd; Raynor Rd	Grasshopper Rd	White Oak Rd	Widening	7.51	2	4	1	0	0	0	0	\$99,600,000	Mid-Term	Wake	Wake County	CAMPO	
A214	Garner Rd	Tryon Rd	Rock Quarry Rd	Center Turn Lane	7.08	2	3	1	0	1	0	1	\$104,520,000	Long-Term	Wake	Garner	CAMPO	
A228b	NC 50	Cleveland Rd	NC 42	Widening	1.79	2	4	0	0	1	0	0	\$24,310,000	Mid-Term	Johnston; Wake	Johnston County; Wake County	CAMPO	
A228c	NC 50	NC 42	NC 210	Widening	5.61	2	4	0	0	1	0	1	\$74,520,000	Mid-Term	Johnston	Johnston County	CAMPO	
A300	US 70 Business	US 401	I-40	Widening	9.83	4	6	1	0	1	0	1	\$164,420,000	Long-Term	Wake	Garner; Wake County	CAMPO	
A301	US 70 Business	I-40	NC 42	Widening	10.09	4	6	0	0	0	1	1	\$64,840,000	Mid-Term	Johnston; Wake	Clayton; Garner	CAMPO	
A400a	Ten-Ten Rd	Bells Lake Rd	Old Stage Rd	Widening	5.06	2	4	1	0	1	0	0	\$67,010,000	Long-Term	Wake	Wake County	CAMPO	
A400b	Ten Ten Rd	Old Stage Rd	NC 50	Widening	3.41	2	4	1	0	1	0	0	\$45,070,000	Visionary	Wake	Wake County	CAMPO	
A406a	Shotwell Rd	Old US 70	US 70 Business	Widening	0.84	2	4	1	0	1	0	0	\$13,780,000	Near-Term	Johnston	Clayton; Johnston County	CAMPO	
A406b	Amelia Church Rd; Shotwell Rd	NC 42	US 70	Widening	2.00	2	4	1	0	0	1	0	\$26,280,000	Near-Term	Johnston	Clayton; Johnston County	CAMPO	
A406c	Shotwell Rd	Old Baucom Rd	Old US 70	Widening	2.12	2	4	1	0	1	0	0	\$27,860,000	Mid-Term	Johnston	Clayton; Johnston County	CAMPO	
A407b2	NC 42	Study Area Boundary	NC 50	Widening	8.01	2	4	1	0	1	0	0	\$57,680,000	Long-Term	Johnston; Wake	Johnston County; Wake County	CAMPO	
A407b3	NC 42	NC 50	Glen Rd	Widening	2.10	2	4	1	0	1	0	1	\$26,860,000	Mid-Term	Johnston	Johnston County	CAMPO	R-3410B
A435	Battle Bridge Rd	Rock Quarry Rd	Auburn-Knightdale Rd	Center Turn Lane	1.79	2	3	0	0	1	0	1	\$14,800,000	Long-Term	Wake	Raleigh; Wake County	CAMPO	
A480a1	US 401	US 70	Garner Station Rd	Widening	0.60	4	6	0	0	1	0	1	\$27,790,000	Near-Term	Wake	Garner; Raleigh; Wake County	CAMPO	
A480a2	US 401	Garner Station Rd	Old Stage Rd	Superstreet	1.40	4	6	1	0	1	0	1	\$24,900,000	Near-Term	Wake	Garner; Wake County	CAMPO	U-5302
A480a3	US 401	Old Stage Rd	Simpkins Rd	Superstreet	1.00	4	6	1	0	1	0	1	\$24,890,000	Near-Term	Wake	Garner; Wake County	CAMPO	U-6116
A480a4	US 401	Simpkins Rd	Ten Ten Rd	Widening	2.84	4	6	1	0	1	0	1	\$74,950,000	Mid-Term	Wake	Garner; Wake County	CAMPO	
A480b	US 401	Ten Ten Rd	Wake Tech Wy	Widening	1.09	4	6	1	0	1	0	1	\$51,930,000	Near-Term	Wake	Wake County	CAMPO	U-5746
A539	Banks Rd	US 401	Fanny Brown Rd	Center Turn Lane	1.42	2	3	0	0	0	0	0	\$22,630,000	Long-Term	Wake	Wake County	CAMPO	
A540a	Rock Service Station Rd	Old Stage Rd	NC 42	Center Turn Lane	3.74	2	3	0	0	0	0	0	\$48,780,000	Visionary	Wake	Johnston County	CAMPO	
A540b	Rock Service Station Rd	NC 42	Mt Pleasant Rd	Center Turn Lane	2.57	2	3	0	0	0	0	0	\$33,560,000	Long-Term	Johnston; Wake	Johnston County; Wake County	CAMPO	
A541	Mt Pleasant Rd	NC 42	NC 50	Widening	5.35	2	4	0	0	0	0	0	\$76,380,000	Visionary	Johnston; Wake	Johnston County; Wake County	CAMPO	
A574	Grovemont Rd	US 401	Timber Dr	Center Turn Lane	0.98	2	3	1	0	1	0	0	\$14,610,000	Visionary	Wake	Garner; Wake County	CAMPO	
A575	Woodland Rd	Old Stage Rd	Vandora Springs Rd	Center Turn Lane	1.47	2	3	1	0	1	0	0	\$21,460,000	Visionary	Wake	Garner; Wake County	CAMPO	
A576	Buffaloe Rd	Aversboro Rd	Benson Rd	Center Turn Lane	1.49	2	3	1	0	1	0	0	\$21,610,000	Mid-Term	Wake	Garner	CAMPO	
A578	Auburn Church Rd	Jones Sausage Rd	Garner Rd	Center Turn Lane	2.81	2	3	0	0	1	0	0	\$37,230,000	Long-Term	Wake	Raleigh; Wake County	CAMPO	
A582	Bissette Rd/Lake Wendell Rd	Smithfield Rd	Medlin Rd	Center Turn Lane	2.78	2	3	0	0	1	0	0	\$36,440,000	Visionary	Johnston; Wake	Johnston County; Wake County	CAMPO	
A65	NC 39	Debnam Rd	Hatcher Rd	Widening	17.95	2	4	0	0	0	0	0	\$167,390,000	Mid-Term	Johnston; Wake	Johnston County; Wake County	CAMPO	
A665	Perry Curtis Rd/Wake County Line Rd	S Arendale Av	NC 39	Center Turn Lane	2.61	2	3	0	0	0	0	0	\$23,160,000	Visionary	Johnston; Wake	Johnston County; Wake County	CAMPO	
A683b	Barwell Rd	Poole Rd	Berkely Lake Dr.	Center Turn Lane	1.22	2	3	0	0	1	0	1	\$17,520,000	Long-Term	Wake	Raleigh; Wake County	CAMPO	
A690	Stotts Mill Rd	Buffalo Rd	Wendell Road	Widening	2.43	2	4	0	0	1	0	0	\$35,960,000	Long-Term	Johnston	Johnston County	CAMPO	
A691		Lake Glad Rd	Stotts Mill Rd	New Location	0.81	0	3	0	0	0	0	0	\$10,060,000	Long-Term	Johnston; Wake	Johnston County; Wake County	CAMPO	

Project						Lanes		Multimodal					Other Information					
ID	Name	From	To	Improvement	Len. (Mi)	Exist	Prop	Side-walk	Wide Should.	Bicycle	Multi-use	Transit	Cost	Horizon	County	Municipality	MPO	TIP No.
A693	S. Selma Rd	Old Wilson Rd	Stotts Mill Rd	Center Turn Lane	2.36	2	3	0	0	1	0	0	\$21,380,000	Long-Term	Johnston; Wake	Wendell; Johnston County; Wake County	CAMPO	
A741	Aversboro Rd	Timber Dr	Thompson Rd Ext (Proposed)	Center Turn Lane	0.96	2	3	1	0	1	0	0	\$14,600,000	Long-Term	Wake	Garner	CAMPO	
A798	NC 96	Green Grove Ln	Rice Rd	Widening	1.28	2	4	0	0	0	0	0	\$21,200,000	Visionary	Wake	Wake County	CAMPO	
A88	New Rand Rd	US 70 Business	Benson Rd	Center Turn Lane	0.97	2	3	1	0	0	0	0	\$16,060,000	Visionary	Wake	Garner	CAMPO	U-3607
F14	US 70 Bypass	I-40	US 70 Business	Widening	18.20	4	6	0	0	0	0	0	\$180,660,000	Long-Term	Johnston	Johnston County	CAMPO	
F3	NC 540	I-40 (South)	I-87	New Location	33.85	0	6	0	0	0	0	0	\$427,870,000	Near-Term	Wake	Raleigh	CAMPO	R-2829
F41	I-40	Wade Ave	NC 540	Widening	45.44	8	10	0	0	0	0	1	\$244,580,000	Near-Term	Wake	Garner; Raleigh; Wake County	CAMPO	
F41b	I-40	NC 540	Cornwallis Rd	Widening	7.52	8	10	0	0	0	0	0	\$23,690,000	Mid-Term	Johnston	Johnston County	CAMPO	
F44a	I-40	I-440	US 70 Business	Widening	8.06	6	8	0	0	0	0	1	\$225,890,000	Near-Term	Wake	Garner; Raleigh; Wake County	CAMPO	I-5111A
F44b	I-40	US 70	NC 42	Widening	11.61	4	8	0	0	0	0	0	\$323,440,000	Near-Term	Johnston; Wake	Garner; Johnston County; Wake County	CAMPO	I-5111BA and BB
F44c	I-40	NC 42	NC 210	Widening	14.61	4	6	0	0	0	0	0	\$163,850,000	Near-Term	Johnston	Johnston County	CAMPO	
F44d	I-40	NC 210	NC 242	Widening	12.74	4	6	0	0	0	0	1	\$172,790,000	Mid-Term	Johnston	Johnston County	CAMPO	
F45	I-40	Cornwallis Rd	NC 210	Widening	8.42	6	8	0	0	0	0	0	\$31,170,000	Mid-Term	Johnston	Johnston County	CAMPO	
F46	I-40	NC 210	NC 242	Widening	13.65	6	8	0	0	0	0	1	\$41,890,000	Mid-Term	Johnston	Johnston County	CAMPO	
F5	NC 540	NC 55	US 401	New Location	22.12	0	6	0	0	0	0	0	\$298,660,000	Near-Term	Wake	Wake County	CAMPO	R-2721
F6	NC 540	US 401	I-40	New Location	30.09	0	6	0	0	0	0	0	\$446,500,000	Near-Term	Wake	Wake County	CAMPO	R-2828
Hrnt3b	NC 210	Old Stage Rd	NC 50	Widening	6.41	2	4	0	0	0	1	0	\$85,420,000	Long-Term	Johnston	Johnston County	CAMPO	
Hrnt3c1	NC 210	NC 50	Raleigh Rd	Widening	2.07	2	4	0	0	0	1	1	\$90,910,000	Near-Term	Johnston	Johnston County	CAMPO	U-6203
Hrnt3c2	NC 210	Raleigh Rd	Lassiter Pond Rd	Widening	5.19	2	4	0	0	0	0	0	\$67,010,000	Long-Term	Johnston	Johnston County	CAMPO	
Jhns10a	Cleveland Rd	NC 50	NC 42	Widening	2.11	2	4	0	0	0	0	1	\$33,800,000	Long-Term	Johnston; Wake	Johnston County; Wake County	CAMPO	
Jhns13a	NC 42	US 70 Business	Ranch Rd	New Location	0.44	0	2	0	0	0	1	0	\$2,960,000	Near-Term	Johnston	Clayton; Johnston County	CAMPO	U-6223
Jhns13b	NC 42	US 70 Bypass	US 70 Business	Widening	2.00	2	4	1	0	0	1	0	\$28,680,000	Mid-Term	Johnston	Clayton; Johnston County	CAMPO	U-6223
Jhns14	Clayton Northern Connector	N O'Neil St	Covered Bridge Rd	New Location	0.12	0	2	1	0	0	1	0	\$1,850,000	Long-Term	Johnston	Clayton; Johnston County	CAMPO	
Jhns15	NC 42	Buffalo Rd	CAMPO Boundary	TSM	11.43	2	2	0	0	0	0	0	\$24,550,000	Visionary	Johnston	Johnston County	CAMPO	U-5998
Jhns16	N O'Neil St	W Main St	Clayton Northern Connector	Center Turn Lane	1.87	2	3	1	0	1	0	0	\$28,670,000	Near-Term	Johnston	Clayton; Johnston County	CAMPO	
Jhns17	Pony Farm Rd	Ranch Rd	Little Creek Church Rd	New Location	1.11	0	3	0	0	0	0	0	\$20,320,000	Visionary	Johnston	Johnston County	CAMPO	
Jhns1b	NC 42	Glen Laurel Rd	Buffalo Rd	Widening	4.44	2	4	0	0	1	0	0	\$104,440,000	Near-Term	Johnston	Clayton; Johnston County	CAMPO	R-3825B
Jhns2a	NC 42	US 70 Bypass	US 70 Business	Widening	3.00	2	4	1	0	0	1	1	\$40,520,000	Long-Term	Johnston	Clayton	CAMPO	R-3410A
Jhns2b	NC 42	I-40	US 70 Bypass	Widening	3.23	2	4	1	0	1	0	1	\$48,390,000	Mid-Term	Johnston	Johnston County	CAMPO	R-3410B
Jhns4a1	Clayton Northern Connector	NC 42	N O'Neil St	New Location	2.19	0	2	1	0	0	1	0	\$20,060,000	Visionary	Johnston	Clayton; Johnston County	CAMPO	
Jhns4a2	Clayton Northern Connector	N O'Neil St	NC 42	Widening	2.19	2	4	1	0	0	1	0	\$29,040,000	Visionary	Johnston	Clayton; Johnston County	CAMPO	
Jhns4b	Covered Bridge Rd	Shotwell Rd	N O'Neil St	Widening	2.07	2	4	1	1	0	1	0	\$26,150,000	Long-Term	Johnston	Clayton; Johnston County	CAMPO	
Jhns6	Prichard Rd; Smithfield Rd	Wake County line	Covered Bridge Rd	Widening	2.37	2	4	1	0	0	1	0	\$34,530,000	Visionary	Johnston	Clayton; Johnston County	CAMPO	
Jhns7a	Guy Rd	Old US 70	Amelia Church Rd	Widening	3.42	2	4	1	0	1	0	0	\$49,900,000	Near-Term	Johnston; Wake	Johnston County; Wake County	CAMPO	R-3618
Jhns7b	Guy Rd	Amelia Church Rd	NC 42	Widening	0.97	2	4	1	0	1	0	0	\$14,340,000	Long-Term	Johnston	Clayton; Johnston County	CAMPO	R-3618
SEAS10	Earpsboro Chamblee Rd; Earpsboro Rd	Morphus Bridge Rd	NC 39	Widening	3.20	2	4	0	0	0	0	0	\$43,430,000	Long-Term	Johnston; Wake	Johnston County; Wake County	CAMPO	
SEAS12	Main St	Robertson Rd	Smith St	TSM	0.71	2	2	1	0	0	0	1	\$6,540,000	Mid-Term	Johnston	Clayton	CAMPO	
SEAS16	Moss Rd	Morphus Bridge Rd	Earpsboro Chamblee Rd	New Location	3.20	2	4	0	0	0	0	0	\$67,780,000	Visionary	Johnston; Wake	Johnston County; Wake County	CAMPO	
SEAS179	Grovemont Rd	Fayetteville Rd	Old Stage Rd	New Location	0.12	0	3	1	0	1	0	0	\$1,950,000	Visionary	Wake	Garner; Wake County	CAMPO	
SEAS180	Timber Dr	US 70	Vandora Springs Rd	Access Management	1.88	4	4	1	0	1	0	0	\$24,010,000	Long-Term	Wake	Garner	CAMPO	
SEAS181	Fifth Ave	Vandora Springs Rd	Aversboro Rd	Access Management	0.23	2	2	1	0	0	0	0	\$3,140,000	Visionary	Wake	Garner	CAMPO	
SEAS182	Timber Dr	Aversboro Rd	White Oak Road	Access Management	2.03	4	4	1	0	1	0	1	\$26,010,000	Visionary	Wake	Garner	CAMPO	
SEAS183	Timber Dr	Vandora Springs Rd	Aversboro Rd	Access Management	1.28	4	4	1	0	1	0	0	\$23,010,000	Long-Term	Wake	Garner	CAMPO	
SEAS184	Jewell St	Current End	Wilmington Rd	New Location	0.25	0	2	0	0	0	1	0	\$3,070,000	Long-Term	Wake	Garner	CAMPO	
SEAS185	Charles St	Current End	Wilmington Rd	New Location	0.53	0	2	0	0	0	1	0	\$6,490,000	Near-Term	Wake	Garner	CAMPO	
SEAS186		Longview St	Creech Rd	New Location	0.31	0	2	0	0	0	0	0	\$3,490,000	Long-Term	Wake	Garner	CAMPO	
SEAS187	Cofield Aly		W Garner Rd	New Location	0.49	0	2	0	0	0	0	0	\$5,500,000	Long-Term	Wake	Garner	CAMPO	
SEAS188		W Garner Rd	Weston Rd	New Location	0.63	0	2	0	0	0	0	0	\$7,090,000	Near-Term	Wake	Garner	CAMPO	
SEAS189	Quiet Refuge Ln	Current End		New Location	0.12	0	2	0	0	0	0	0	\$1,310,000	Long-Term	Wake	Garner	CAMPO	
SEAS19	Swift Creek Rd	0.5 mi N of Airport Industrial Dr	Airport Industrial Dr	Center Turn Lane	0.26	2	3	0	0	0	0	0	\$2,700,000	Long-Term	Johnston	Johnston County	UCPRPO	
SEAS190	Curtiss Dr	W Garner Rd	Current End	New Location	0.14	0	2	1	0	0	0	0	\$1,860,000	Mid-Term	Wake	Garner	CAMPO	
SEAS191	New Rand Rd	E Garner Rd	Jones Sausage Rd	New Location	0.82	0	2	1	0	1	0	0	\$11,040,000	Mid-Term	Wake	Garner	CAMPO	
SEAS192		Charles St Ext	E Garner Rd	New Location	0.87	0	2	0	0	0	1	0	\$10,650,000	Long-Term	Wake	Garner	CAMPO	
SEAS193	Wakeland Dr	Long Ave	White Oak Rd	New Location	0.80	0	2	1	0	0	0	0	\$9,720,000	Visionary	Wake	Garner	CAMPO	
SEAS194	Poole Dr	Lawndale St	NC 50	New Location	0.24	0	2	1	0	0	0	0	\$2,940,000	Visionary	Wake	Garner	CAMPO	
SEAS195	Coffeeberry Ct	Fox Walk Pth Ext	Twinberry Ln	New Location	0.07	0	2	1	0	0	0	0	\$980,000	Visionary	Wake	Garner	CAMPO	
SEAS196	Fox Walk Pth	Fox Trap Ct	White Oak Rd	New Location	1.00	0	2	0	0	1	0	0	\$11,260,000	Visionary	Wake	Garner	CAMPO	

Project						Lanes		Multimodal					Other Information					
ID	Name	From	To	Improvement	Len. (Mi)	Exist	Prop	Side-walk	Wide Should.	Bicycle	Multi-use	Transit	Cost	Horizon	County	Municipality	MPO	TIP No.
SEAS197	Skipping Rock Ln	Current End	Ackerman Rd Ext	New Location	0.18	0	2	1	0	0	0	0	\$2,400,000	Long-Term	Wake	Garner	CAMPO	
SEAS198	New Bethel Church Rd	Ackerman Rd Ext	NC 50	New Location	0.57	0	2	0	0	0	0	0	\$6,440,000	Near-Term	Wake	Garner	CAMPO	
SEAS199	New Bethel Church Rd	November Street	Ackerman Rd Ext	New Location	0.46	0	2	0	0	0	0	0	\$5,210,000	Near-Term	Wake	Garner	CAMPO	
SEAS2	Old Stage Rd	Ten Ten Road	Rock Service Station Rd	Widening	1.48	2	4	1	0	0	1	0	\$14,060,000	Near-Term	Wake	Wake County	CAMPO	
SEAS200	Bayberry Woods Dr	Fox Walk Path Ext	Current End	New Location	0.28	0	2	1	0	1	0	0	\$3,740,000	Visionary	Wake	Garner	CAMPO	
SEAS201	Banks Rd	Old Stage Rd	Holland Church Rd	New Location	0.94	0	2	0	0	0	0	0	\$10,560,000	Visionary	Wake	Garner	CAMPO	
SEAS202	Landsburg Dr	Okamoto Dr	Current End	New Location	0.47	0	2	0	0	0	0	0	\$5,340,000	Visionary	Wake	Garner	CAMPO	
SEAS203	South Mountain Dr	Landsburg Dr Ext	Current End	New Location	0.03	0	2	0	0	0	0	0	\$300,000	Visionary	Wake	Garner	CAMPO	
SEAS204	Kanaskis Rd	Current End	Ten Ten Rd	New Location	0.44	0	2	1	0	0	0	0	\$5,960,000	Visionary	Wake	Garner	CAMPO	
SEAS205	Hurst Dr	Kanaskis Rd Ext	Current End	New Location	0.16	0	2	1	0	0	0	0	\$2,190,000	Visionary	Wake	Garner	CAMPO	
SEAS206	Denlee Rd	Lake Wheeler Rd	US 401	New Location	0.71	0	2	0	0	0	0	0	\$7,980,000	Near-Term	Wake	Garner	CAMPO	
SEAS207	Legend Rd	Old Stage Rd	Lakeside Trail	New Location	0.29	0	2	0	0	0	0	0	\$3,230,000	Visionary	Wake	Garner	CAMPO	
SEAS208		Cindy Dr	Grovemont Rd	New Location	0.08	0	2	0	0	0	0	0	\$880,000	Near-Term	Wake	Garner	CAMPO	
SEAS209	Roan Dr	Poplar Springs Church Rd	Vandora Springs Rd	New Location	0.64	0	2	0	0	0	0	0	\$7,220,000	Long-Term	Wake	Garner	CAMPO	
SEAS210			Hall Blvd	New Location	0.10	0	2	0	0	0	0	0	\$1,100,000	Visionary	Wake	Garner	CAMPO	
SEAS211		Old Stage Rd		New Location	0.29	0	2	0	0	0	0	0	\$3,230,000	Visionary	Wake	Garner	CAMPO	
SEAS212	Thompson Rd	Current End	Aversboro Rd	New Location	0.28	0	2	1	0	0	0	0	\$3,360,000	Long-Term	Wake	Garner	CAMPO	
SEAS213	Malibu Drive	Current End	Vandora Springs Rd Ext	New Location	0.22	0	2	0	0	0	0	0	\$2,450,000	Visionary	Wake	Garner	CAMPO	
SEAS214	Crosspine Dr	Bentpine Dr	Maxwell Dr	New Location	0.17	0	2	1	0	0	0	0	\$2,340,000	Long-Term	Wake	Garner	CAMPO	
SEAS215	Ackerman Rd	New Bethel Church Rd Ext	NC 50	New Location	0.43	0	4	1	0	0	0	0	\$8,520,000	Long-Term	Wake	Garner	CAMPO	
SEAS216	Wrenn Rd	Current End	New Bethel Church Rd Ext	New Location	0.87	0	2	0	0	0	0	0	\$9,810,000	Long-Term	Wake	Garner	CAMPO	
SEAS217	Buffaloe Rd	Vandora Springs Rd	Garner Town Limits	Access Management	1.07	2	2	1	0	0	1	0	\$13,640,000	Visionary	Wake	Garner	CAMPO	
SEAS218	Buffaloe Rd	Garner Town Limits	Garner Town Limits	Access Management	0.57	2	2	1	0	0	1	0	\$5,630,000	Visionary	Wake	Garner	CAMPO	
SEAS219	Creek Commons Ave	Muirfield Ridge Dr	Creech Rd	New Location	0.25	0	2	1	0	0	0	0	\$3,370,000	Long-Term	Wake	Garner	CAMPO	
SEAS220	Timber Drive E	Adeline Wy	White Oak Rd	New Location	1.31	0	4	1	0	0	0	0	\$26,090,000	Long-Term	Wake	Garner	CAMPO	
SEAS221	Lake Wheeler Park	Lake Wheeler Park	US 401	New Location	1.10	0	3	0	0	0	1	0	\$16,140,000	Visionary	Wake	Garner	CAMPO	
SEAS222	Meadowbook Dr	Weston Rd	Creech Rd	New Location	0.71	0	2	0	0	0	1	0	\$8,730,000	Long-Term	Wake	Garner	CAMPO	
SEAS223	Tryon Rd	Cyrus St	Rivermist Dr	New Location	2.24	0	2	0	0	1	0	0	\$30,200,000	Long-Term	Wake	Raleigh	CAMPO	U-3111
SEAS224	Wilmington St	Tryon Rd	Rear of Belk/Carlie C's Shopping Center	New Location	0.33	0	3	0	0	0	0	1	\$4,540,000	Near-Term	Wake	Raleigh	CAMPO	
SEAS225	Idlewood Village Dr	Current End	Tryon Rd Ext	New Location	0.09	0	2	1	0	0	0	0	\$1,200,000	Visionary	Wake	Wake County	CAMPO	
SEAS226	Johnson St	Creech Rd	Avery St	New Location	1.17	0	2	0	0	0	1	0	\$14,420,000	Long-Term	Wake	Garner	CAMPO	
SEAS233		Whitfield Rd Ext	Wall Store Rd	New Location	1.83	0	2	0	0	0	0	0	\$20,580,000	Mid-Term	Wake	Raleigh; Wake County	CAMPO	
SEAS244	Vandora Springs Rd	US 401	Old Stage Rd	New Location	1.74	0	2	0	0	0	1	0	\$21,420,000	Long-Term	Wake	Wake County	CAMPO	
SEAS245	Ackerman Rd	NC 50	Anton Wy	New Location	0.39	0	3	1	0	1	0	0	\$6,490,000	Long-Term	Wake	Garner; Wake County	CAMPO	
SEAS246	Market St	Brightleaf Blvd	I-95	TSM	1.07	3	3	1	0	0	1	1	\$13,160,000	Long-Term	Johnston	Smithfield	UCPRPO	
SEAS247		Brogden Rd	Mallard Rd	New Location	1.49	0	2	0	0	0	0	0	\$16,770,000	Visionary	Johnston	Smithfield	UCPRPO	
SEAS248		Mallard Rd	Hill Rd	New Location	1.66	0	2	0	0	0	0	0	\$18,710,000	Long-Term	Johnston	Smithfield	UCPRPO	
SEAS249	Old Farm Rd		Current End	New Location	0.24	0	2	0	0	0	0	0	\$2,760,000	Visionary	Johnston	Smithfield	UCPRPO	
SEAS250	Peedin Rd	Outlet Center Dr	Venture Dr	New Location	0.33	0	4	1	0	0	0	0	\$6,360,000	Visionary	Johnston	Smithfield	UCPRPO	
SEAS251	Market St	N	Front St	TSM	0.59	5	4	0	0	0	1	1	\$3,650,000	Long-Term	Johnston	Smithfield	UCPRPO	
SEAS252	Cleveland Rd	NC 42	Cornwallis Rd	Widening	2.26	2	4	1	0	0	1	1	\$40,980,000	Mid-Term	Johnston	Johnston County	CAMPO	U-6216
SEAS253	Cleveland Rd	Cornwallis Rd	Barber Mill Rd	TSM	2.87	2	2	1	0	0	1	1	\$24,030,000	Mid-Term	Johnston	Johnston County	CAMPO	U-6216
SEAS254	Clayton Industrial Connector	NC 42	GLP One Wy	New Location	0.91	0	2	0	0	0	0	0	\$18,690,000	Visionary	Johnston	Johnston County	CAMPO	
SEAS255	Brightleaf Blvd	Brogden Rd	Market St	TSM	0.91	5	4	1	0	0	0	1	\$10,520,000	Visionary	Johnston	Smithfield	UCPRPO	
SEAS256	Pollock St	US 70 Bypass	NC 39	TSM	2.55	5	4	1	0	0	0	1	\$29,620,000	Visionary	Johnston	Selma	UCPRPO	
SEAS257	Brightleaf Blvd	Booker Dairy Rd	Ricks Rd	TSM	0.83	5	4	1	0	0	0	1	\$9,590,000	Visionary	Johnston	Smithfield	UCPRPO	
SEAS258	Brightleaf Blvd	Market St	Booker Dairy Rd	TSM	1.57	5	4	1	0	0	0	1	\$18,210,000	Visionary	Johnston	Smithfield	UCPRPO	
SEAS259	US 301	I-95	Brogden Rd	Widening	3.80	2	4	1	0	0	1	1	\$68,010,000	Long-Term	Johnston	Smithfield	UCPRPO	
SEAS260	US 301	Micro Town Limits	Micro Town Limits	Modernization	0.67	2	2	1	1	0	0	1	\$1,080,000	Visionary	Johnston	Micro	UCPRPO	
SEAS261	NC 210	Lassiter Pond Rd	Market St	Modernization	6.43	2	2	1	1	0	1	0	\$10,340,000	Visionary	Johnston	Smithfield	UCPRPO	
SEAS262	N Baker St	E Hatcher St	E Wellons St	Modernization	0.41	2	2	1	0	0	0	0	\$670,000	Visionary	Johnston	Four Oaks	UCPRPO	
SEAS263	Brogden Rd	S Brightleaf Blvd	I-95	Modernization	0.64	2	2	1	1	0	1	0	\$1,030,000	Long-Term	Johnston	Smithfield	UCPRPO	
SEAS264	Buffalo Rd	US 70	Old Beulah Rd	Modernization	1.25	2	2	0	1	0	1	0	\$2,600,000	Long-Term	Johnston	Selma	UCPRPO	
SEAS265	Buffalo Rd	US 70	Hospital Rd	Modernization	2.76	2	2	1	1	0	1	0	\$6,030,000	Visionary	Johnston	Smithfield	UCPRPO	
SEAS266	Clayton Southern Connector	Little Creek Church Rd	NC 42	New Location	2.12	0	2	1	0	0	1	0	\$34,460,000	Long-Term	Johnston	Clayton; Johnston County	CAMPO	R-3618
SEAS267	N Church St	W Hatcher St	W Wellons St	Modernization	0.45	2	2	1	0	0	0	0	\$890,000	Visionary	Johnston	Four Oaks	UCPRPO	
SEAS268	Fire Dept Rd	Southerland Rd	Wilson's Mills Rd	Modernization	1.32	2	2	1	1	0	1	0	\$3,100,000	Long-Term	Johnston	Wilson's Mills	UCPRPO	
SEAS269	Powhatan Rd	US 70 Business	Fire Dept Rd	Modernization	4.95	2	2	1	1	0	1	0	\$10,810,000	Visionary	Johnston	Wilson's Mills	UCPRPO	

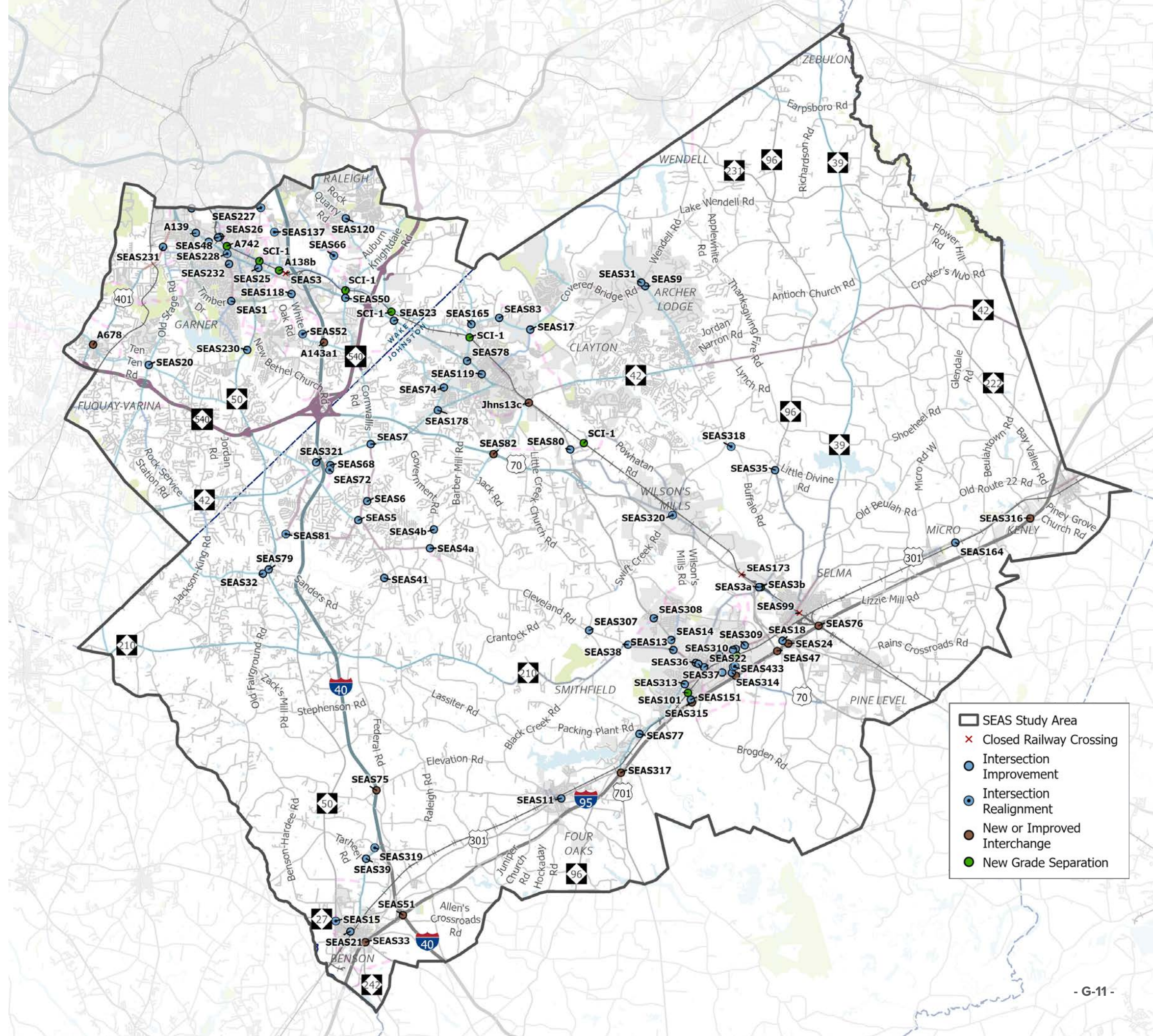


Project						Lanes		Multimodal					Other Information					
ID	Name	From	To	Improvement	Len. (Mi)	Exist	Prop	Side-walk	Wide Should.	Bicycle	Multi-use	Transit	Cost	Horizon	County	Municipality	MPO	TIP No.
SEAS27	New Pearl Rd	Barwell Rd	Auburn Church Rd	New Location	1.52	0	3	1	0	1	0	0	\$30,320,000	Long-Term	Wake	Raleigh; Wake County	CAMPO	
SEAS270	W Sanders St	N Church St	N Main St	Modernization	0.07	2	2	1	0	0	0	0	\$120,000	Visionary	Johnston	Four Oaks	UCPRPO	
SEAS271	E Sanders St	N Main St	Maple Ave	Modernization	0.21	2	2	1	0	0	0	0	\$340,000	Mid-Term	Johnston	Four Oaks	UCPRPO	
SEAS272	Covered Bridge Rd	Pritchard Rd	Clayton Northern Connector	Widening	2.06	2	4	1	0	1	0	0	\$37,230,000	Long-Term	Johnston	Archer Lodge; Clayton; Johnston County	CAMPO	
SEAS273	Wilson's Mills Rd	Swift Creek Rd	US 70	Modernization	1.33	2	2	1	1	0	0	1	\$2,140,000	Visionary	Johnston	Wilson's Mills	UCPRPO	
SEAS274	Wilson's Mills Rd	Gordon Rd	Swift Creek Rd	Modernization	1.37	2	2	1	1	0	0	0	\$2,220,000	Visionary	Johnston	Wilson's Mills	UCPRPO	
SEAS275	Gordon Rd	US 70 Business	Wilson's Mills Rd	Modernization	2.61	2	2	0	1	0	0	0	\$4,200,000	Visionary	Johnston	Johnston County	UCPRPO	
SEAS276	Wilson's Mills Rd	M Durwood Stephenson Hwy	Market St	Center Turn Lane	0.95	2	3	1	0	1	0	0	\$13,100,000	Visionary	Johnston	Smithfield	UCPRPO	
SEAS277	Barber Mill Rd	Cleveland Rd	Monroe Rd	New Location	0.61	0	2	0	0	0	1	0	\$7,560,000	Visionary	Johnston	Johnston County	CAMPO	
SEAS278	Glen Rd	Cleveland Rd	NC 42	New Location	0.44	0	2	1	0	0	0	0	\$5,340,000	Mid-Term	Johnston	Johnston County	CAMPO	
SEAS279	Covered Bridge Rd	Pritchard Rd	Buffalo Rd	TSM	4.93	2	2	1	0	1	0	0	\$53,000,000	Long-Term	Johnston	Archer Lodge; Clayton; Johnston County	CAMPO	
SEAS280	Jaguar Dr	Martin Luther King Jr Dr	Jaguar Dr	New Location	0.77	0	2	0	0	0	0	0	\$8,640,000	Visionary	Johnston	Smithfield	UCPRPO	
SEAS281		Market St	College Rd	New Location	0.67	0	2	0	0	0	0	0	\$7,530,000	Long-Term	Johnston	Smithfield	UCPRPO	
SEAS282	West Smithfield Connector	NC 210	Market St	New Location	1.25	0	2	0	0	0	1	0	\$15,310,000	Long-Term	Johnston	Smithfield	UCPRPO	
SEAS283	NC 39	Little Devine Rd	US 301	Modernization	3.43	2	2	0	1	0	0	0	\$7,650,000	Long-Term	Johnston	Johnston County	UCPRPO	
SEAS284	NC 96	Little Divine Rd	Poole Dr	Modernization	4.51	2	2	0	1	0	0	0	\$10,080,000	Long-Term	Johnston	Johnston County	UCPRPO	
SEAS285	N Sumner St	W Richardson St	Poole Dr	Modernization	0.26	2	2	0	0	0	0	0	\$430,000	Visionary	Johnston	Selma	UCPRPO	
SEAS286	W Richardson St	N Sumner St	Pollock St	Modernization	0.14	2	2	1	0	0	0	0	\$230,000	Visionary	Johnston	Selma	UCPRPO	
SEAS287	Banner Elk Rd	NC 50	NC 242	New Location	0.94	0	2	0	0	0	0	0	\$10,570,000	Near-Term	Johnston	Benson	UCPRPO	
SEAS288	Benson Western Bypass	NC 50	NC 50	New Location	3.31	0	2	0	0	0	0	0	\$37,330,000	Long-Term	Johnston	Benson	UCPRPO	
SEAS289	Benson Western Bypass	NC 50	NC 50	New Location	0.07	0	2	0	0	0	0	0	\$740,000	Long-Term	Johnston	Benson	UCPRPO	
SEAS29	Aversboro Rd	US 70	Timber Dr	TSM	1.55	4	4	1	0	1	0	1	\$27,580,000	Visionary	Wake	Garner	CAMPO	
SEAS290	NC 27	Mingo Rd	Main St	Center Turn Lane	0.58	2	3	0	0	0	0	0	\$6,160,000	Mid-Term	Johnston	Benson	UCPRPO	
SEAS291	NC 242	Tarheel Rd	I-40	Widening	0.68	2	4	0	0	0	0	0	\$9,820,000	Near-Term	Johnston	Benson	UCPRPO	
SEAS292	NC 242	Tarheel Rd	N Wall St	Widening	1.98	2	4	0	0	0	1	0	\$34,410,000	Long-Term	Johnston	Benson	UCPRPO	
SEAS293	Ashley Rd/Massengill Farm Rd	Massengill Farm Rd	NC 242	New Location	0.46	0	2	0	0	0	0	0	\$5,140,000	Visionary	Johnston	Benson	UCPRPO	
SEAS294	Cornwallis Rd	Old Drugstore Rd	NC 42	TSM	5.46	2	2	0	0	0	1	0	\$54,000,000	Long-Term	Johnston	Johnston County	CAMPO	
SEAS295	Noble St	Buffalo Rd	Pollock St	Center Turn Lane	1.43	2	3	1	0	0	0	0	\$17,870,000	Visionary	Johnston	Selma	UCPRPO	
SEAS296	US 70 Business	I-95	US 70	Center Turn Lane	3.06	2	3	1	0	0	1	0	\$41,250,000	Visionary	Johnston	Johnston County	UCPRPO	
SEAS297	Booker Dairy Rd	Buffalo Rd	M. Durwood Stephenson Pkwy	New Location	1.07	0	2	1	0	0	1	0	\$18,470,000	Visionary	Johnston	Smithfield	UCPRPO	
SEAS298		M. Durwood Stephenson Pkwy	Lee Youngblood Rd	New Location	1.14	0	2	0	0	0	0	0	\$12,800,000	Visionary	Johnston	Smithfield	UCPRPO	
SEAS299		NC 210	US 70 Business	New Location	0.57	0	2	1	0	0	0	0	\$6,910,000	Visionary	Johnston	Smithfield	UCPRPO	
SEAS30	Beichler Rd	US 70	Beichler Rd	New Location	0.13	0	2	0	0	0	1	1	\$1,570,000	Long-Term	Wake	Garner	CAMPO	
SEAS300		Kellie Dr	Booker Dairy Rd Ext	New Location	0.50	0	2	1	0	0	1	0	\$8,700,000	Visionary	Johnston	Smithfield	UCPRPO	
SEAS301	Bradford Rd	Buffalo Rd	Current End	New Location	0.54	0	2	1	0	0	0	0	\$6,550,000	Visionary	Johnston	Smithfield	UCPRPO	
SEAS302	Stephenson Dr		Current End	New Location	0.22	0	2	0	0	0	0	0	\$2,430,000	Visionary	Johnston	Smithfield	UCPRPO	
SEAS303	Old Drug Store Rd	NC 42	NC 50	TSM	2.54	2	2	1	0	0	1	0	\$33,310,000	Long-Term	Johnston	Johnston County	CAMPO	
SEAS304	Wilmington Rd	Creech Rd	Current End	New Location	1.15	0	3	0	0	0	1	0	\$16,910,000	Long-Term	Wake	Garner	CAMPO	
SEAS305	Wilmington Rd	Current End	Jones Sausage Rd	Widening	1.15	2	4	0	0	0	1	0	\$16,770,000	Long-Term	Wake	Garner	CAMPO	
SEAS4	NC 50	Timber Dr	Cleveland Rd	Widening	5.02	2	4	1	0	1	0	1	\$37,380,000	Mid-Term	Wake	Garner; Wake County	CAMPO	
SEAS44	Stotts Mill Rd	Buffalo Rd	Wendell Rd	Modernization	2.44	2	2	0	1	1	0	0	\$3,930,000	Long-Term	Johnston	Johnston County	CAMPO	
SEAS54		Mallard Rd	US 70 Business	New Location	0.41	0	2	0	0	0	0	0	\$4,620,000	Visionary	Johnston	Smithfield	UCPRPO	
SEAS55		US 70 Business		New Location	0.85	0	2	0	0	0	0	0	\$9,610,000	Visionary	Johnston	Smithfield	UCPRPO	
SEAS56		US 70 Business	Yelverton Grove Rd	New Location	0.86	0	2	0	0	0	0	0	\$9,700,000	Visionary	Johnston	Smithfield	UCPRPO	
SEAS60			Yelverton Grove Rd	New Location	0.14	0	2	0	0	0	0	0	\$1,570,000	Visionary	Johnston	Smithfield; Johnston County	UCPRPO	
SEAS61	Loop Rd	Bobbitt Rd	Covered Bridge Rd	New Location	1.99	0	2	0	0	0	0	0	\$22,410,000	Mid-Term	Johnston	Clayton; Johnston County	CAMPO	
SEAS62	Ranch Rd	US 70 Bypass	Jack Rd	Widening	1.13	2	4	1	0	0	1	0	\$20,520,000	Mid-Term	Johnston	Johnston County	CAMPO	
SEAS63	Whitfield Rd	Auburn Church Rd	Rock Quarry Rd	New Location	1.34	0	2	0	0	0	0	0	\$15,060,000	Near-Term	Wake	Raleigh; Wake County	CAMPO	
SEAS64	Majestic Peak Dr	Bryan Rd	Alderbranch Ct	New Location	0.27	0	2	1	0	0	0	0	\$3,630,000	Visionary	Wake	Garner; Wake County	CAMPO	
SEAS65		Wall Store Rd	Auburn-Knightdale Rd	New Location	0.49	0	2	1	0	0	0	0	\$6,680,000	Long-Term	Wake	Raleigh; Wake County	CAMPO	
SEAS69	Fox Walk Pth	White Oak Rd	Timber Dr E Ext	New Location	0.76	0	2	0	0	0	0	0	\$8,580,000	Long-Term	Wake	Wake County	CAMPO	
SEAS70	US 301	W Goldsboro St	W 7th St	TSM	0.79	5	4	1	0	0	0	1	\$9,160,000	Mid-Term	Johnston	Kenly	UCPRPO	
SEAS71	Cleveland Crossing Dr	Cleveland Crossing Dr	Cleveland Rd	New Location	0.74	0	2	0	0	0	0	0	\$8,310,000	Long-Term	Johnston	Johnston County	CAMPO	
SEAS73		Auburn Church Rd	Auburn Knightdale Rd	New Location	0.73	0	2	1	0	0	0	0	\$8,830,000	Mid-Term	Wake	Garner	CAMPO	
SEAS8	Covered Bridge Rd	O'Neil St	E of Club Connection Blvd	Center Turn Lane	0.99	2	3	1	0	1	0	0	\$13,620,000	Near-Term	Johnston	Clayton	CAMPO	



# SEAS UPDATE

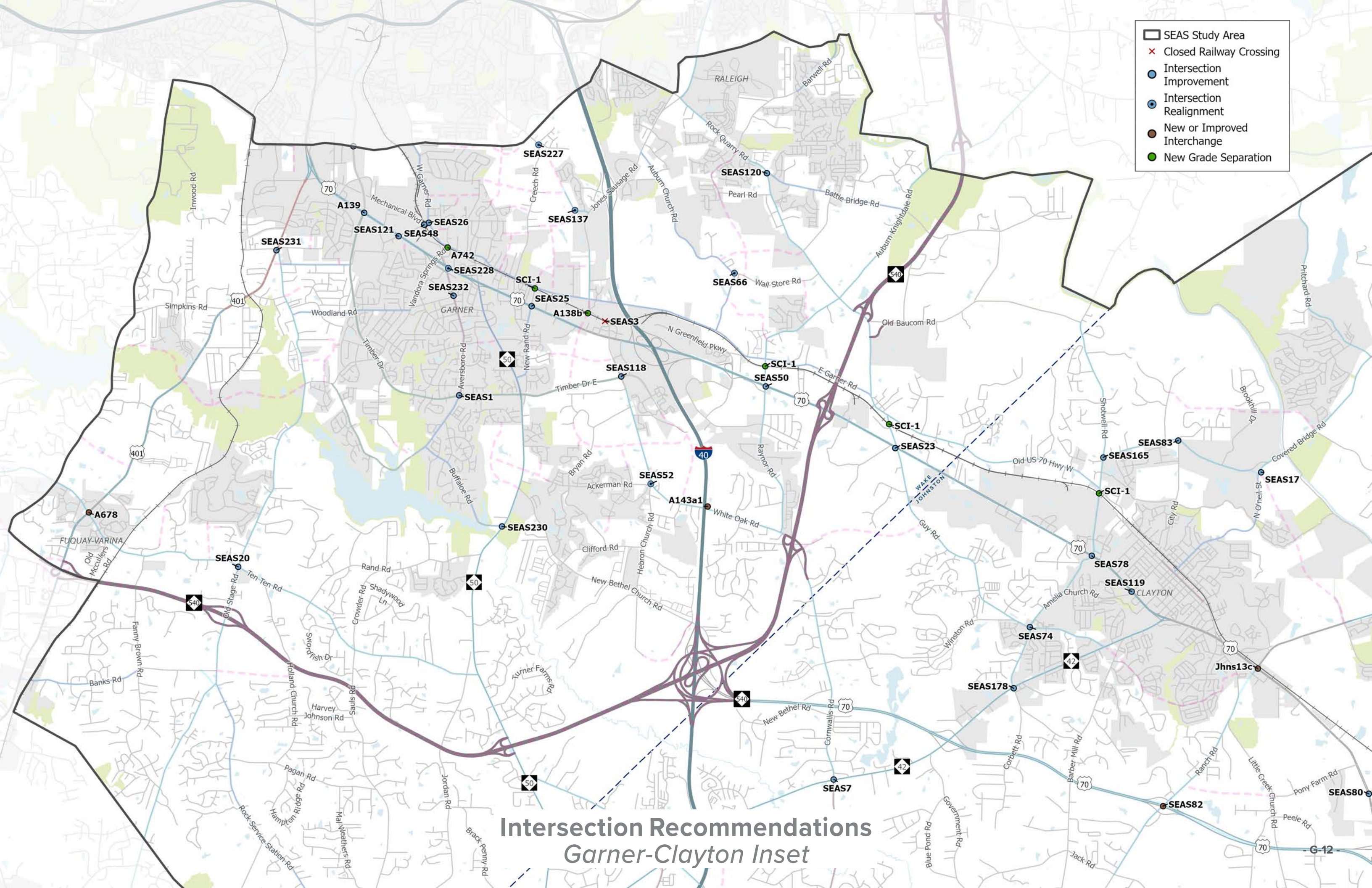
## Intersection Recommendations



- SEAS Study Area
- Closed Railway Crossing
- Intersection Improvement
- Intersection Realignment
- New or Improved Interchange
- New Grade Separation

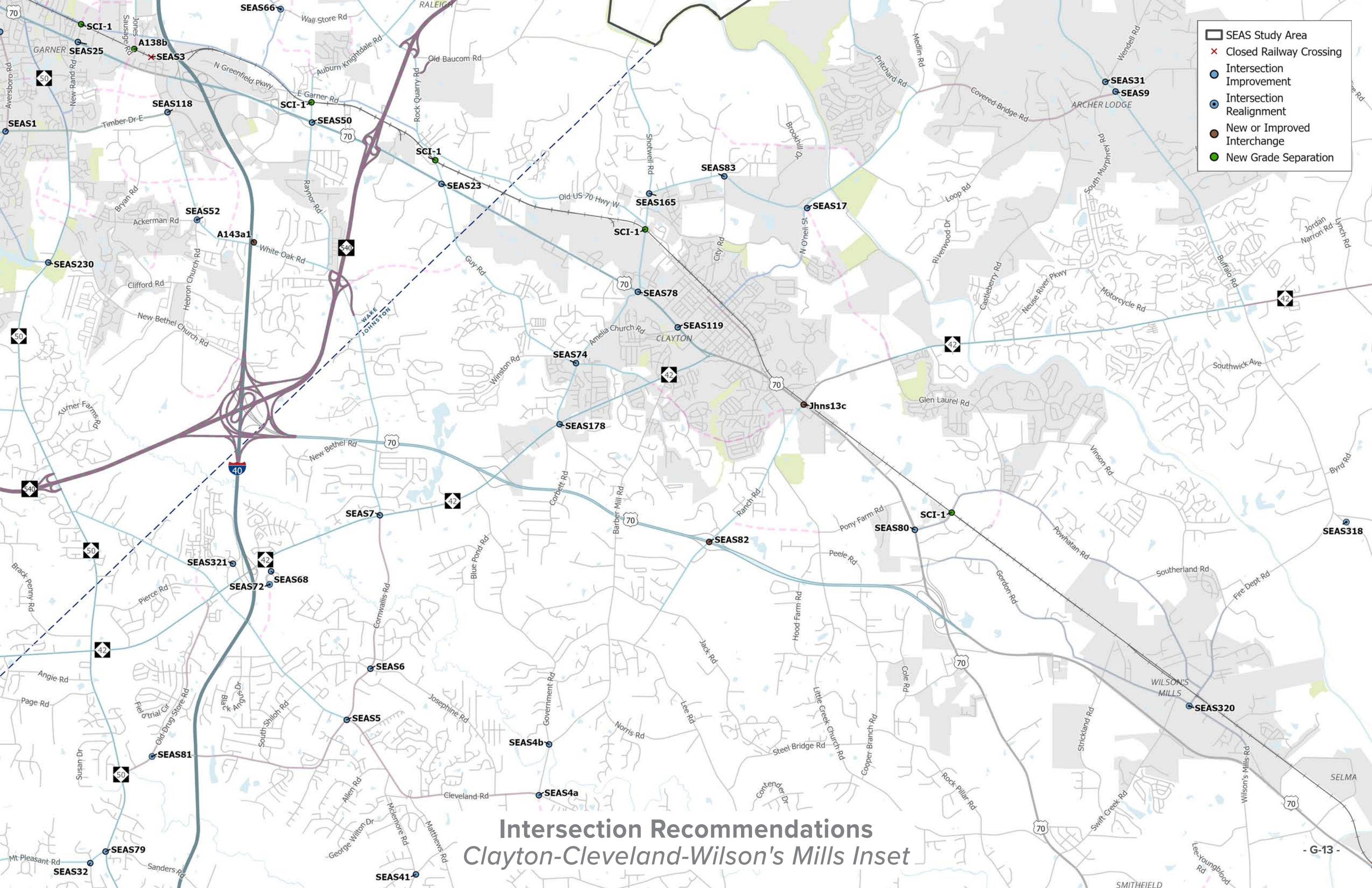


- SEAS Study Area
- Closed Railway Crossing
- Intersection Improvement
- Intersection Realignment
- New or Improved Interchange
- New Grade Separation



Intersection Recommendations  
Garner-Clayton Inset

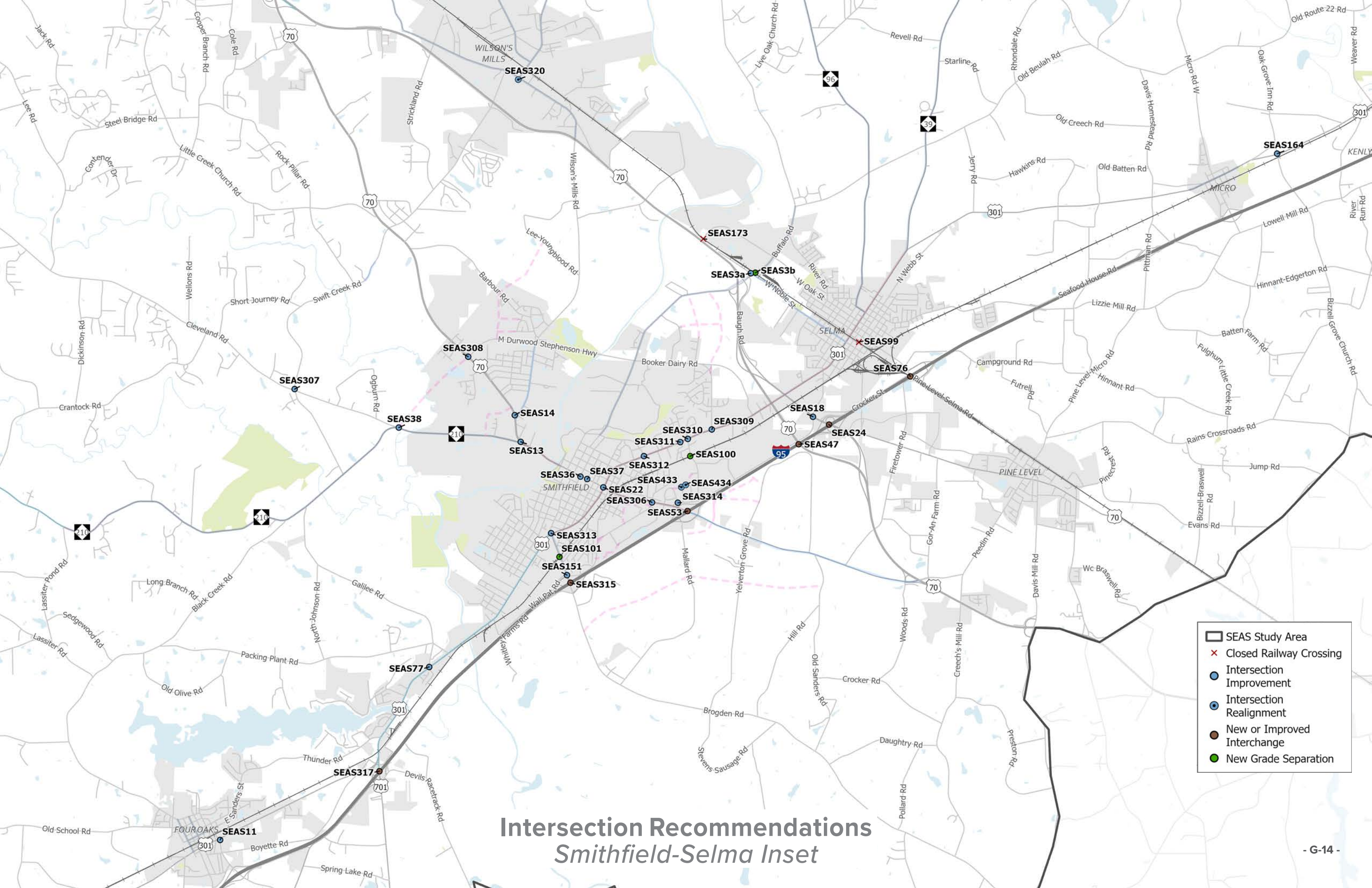




- SEAS Study Area
- Closed Railway Crossing
- Intersection Improvement
- Intersection Realignment
- New or Improved Interchange
- New Grade Separation

## Intersection Recommendations Clayton-Cleveland-Wilson's Mills Inset





## Intersection Recommendations Smithfield-Selma Inset

- SEAS Study Area
- x Closed Railway Crossing
- Intersection Improvement
- Intersection Realignment
- New or Improved Interchange
- New Grade Separation



# SEAS UPDATE Intersection Recommendations

Project			Facility Type		Multimodal					Other Information					
ID	Location	Improvement	Existing	Proposed	Side-walk	Wide Should.	Bicycle	Multi-use	Transit	Cost	Horizon	County	Municipality	MPO	TIP No.
A138b	Jones Sausage Rd/RR	Grade Separation	NA	Grade Separation	1	0	0	0	1	\$27,604,000	Long-Term	Wake County	Garner	CAMPO	
A139	US 70/Timber Dr	CFI	NA	Interchange	1	0	1	0	1	\$17,830,000	Long-Term	Wake County	Garner	CAMPO	U-5744
A143a1	I-40/White Oak Rd	Interchange	NA	Interchange	1	0	1	0	0	\$20,455,050	Near-Term	Wake County	Wake County	CAMPO	
A678	US 401/Ten Ten Rd	Interchange	NA	Interchange	1	0	1	0	1	\$95,050,000	Mid-Term	Wake County	Fuquay-Varina	CAMPO	U-6112
A742	Vandora Hills Rd/RR	Grade Separation	NA	Grade Separation	1	0	1	0	1	\$5,644,918	Near-Term	Wake County	Garner	CAMPO	P-5738
Jhns13c	US 70 BUS/NC 42/Ranch Rd	Interchange	NA	Interchange	1	0	0	1	1	\$58,284,000	Near-Term	Johnston County	Clayton	CAMPO	
SCI-1	Auburn Knightdale Rd/RR	Grade Separation	NA	Grade Separation	1	0	0	0	1	\$7,510,000	Long-Term	Wake County	Wake County	CAMPO	
SCI-1	Guy Rd/RR	Grade Separation	NA	Grade Separation	1	0	0	1	0	\$6,320,000	Near-Term	Wake County	Wake County	CAMPO	
SCI-1	New Rand Rd/RR	Grade Separation	NA	Grade Separation	1	0	0	0	1	\$7,510,000	Mid-Term	Wake County	Garner	CAMPO	
SCI-1	Powhatan Rd/RR	Grade Separation	NA	Grade Separation	1	0	0	1	0	\$6,320,000	Visionary	Johnston County	Clayton	CAMPO	
SCI-1	Shotwell Rd/RR	Grade Separation	NA	Grade Separation	1	0	1	0	0	\$6,320,000	Near-Term	Johnston County	Clayton; Johnston County	CAMPO	
SCI-1	Yeargan Rd/RR	Grade Separation	NA	Grade Separation	1	0	1	0	0	\$7,510,000	Long-Term	Wake County	Garner	CAMPO	
SEAS1	Timber Dr/Aversboro Rd	Intersection Improvement	Intersection	Intersection	1	0	1	0	1	\$1,710,000	Long-Term	Wake County	Garner	CAMPO	
SEAS100	Peedin Rd/RR	Grade Separation	NA	Grade Separation	1	0	0	0	0	\$7,510,000	Long-Term	Johnston County	Smithfield	UCPRPO	
SEAS101	Brogden Rd/RR	Grade Separation	NA	Grade Separation	1	0	0	1	0	\$7,510,000	Long-Term	Johnston County	Smithfield	UCPRPO	
SEAS11	US 301/Keen Rd	Intersection Improvement	Intersection	Intersection	1	0	0	0	1	\$1,710,000	Long-Term	Johnston County	Four Oaks	UCPRPO	
SEAS118	Timber Dr E/White Oak Rd	Intersection Improvement	Intersection	Intersection	1	0	1	0	1	\$1,710,000	Visionary	Wake County	Garner	CAMPO	
SEAS119	US 70 BUS/Amelia Church Rd/Robertson St	Intersection Improvement	Intersection	Intersection	1	0	1	1	1	\$1,710,000	Mid-Term	Johnston County	Clayton	CAMPO	
SEAS120	Rock Quarry Rd/Battle Bridge Rd	Intersection Improvement	Intersection	Intersection	1	0	1	1	1	\$100,000	Near-Term	Wake County	Raleigh	CAMPO	
SEAS121	US 70/Yeargan Rd	Intersection Improvement	Intersection	Intersection	1	0	1	0	1	\$1,710,000	Long-Term	Wake County	Garner	CAMPO	
SEAS13	Market St/NC 210	Intersection Improvement	Intersection	Intersection	0	0	0	1	1	\$1,710,000	Long-Term	Johnston County	Smithfield	UCPRPO	
SEAS137	Wilmington Rd/Charles St Ext	Intersection Realignment	Intersection	Intersection	0	0	0	1	0	\$970,000	Near-Term	Wake County	Garner	CAMPO	
SEAS14	Market St/Wilson's Mills Rd	Intersection Improvement	Intersection	Intersection	1	0	1	1	1	\$3,072,532	Long-Term	Johnston County	Smithfield	UCPRPO	
SEAS15	NC 50/W Main Street/Benson Western Bypass	Intersection Realignment	Intersection	Intersection	0	0	1	0	0	\$1,580,000	Near-Term	Johnston County	Benson	UCPRPO	
SEAS151	I-95/Brogden Rd/Wal-Pat Rd/MLK Jr Dr	Intersection Improvement	Intersection	Intersection	1	0	0	1	0	\$1,403,719	Long-Term	Johnston County	Smithfield	UCPRPO	
SEAS164	US 301/Oak Grove Inn Rd	Intersection Improvement	Intersection	Intersection	0	0	0	0	1	\$1,710,000	Long-Term	Johnston County	Johnston County	UCPRPO	
SEAS165	Shotwell Rd/Covered Bridge Rd	Intersection Improvement	Intersection	Intersection	1	0	1	1	0	\$100,000	Mid-Term	Johnston County	Clayton	CAMPO	
SEAS17	Covered Bridge Rd/O'Neil St	Intersection Improvement	Intersection	Intersection	1	0	1	1	0	\$1,710,000	Long-Term	Johnston County	Johnston County	CAMPO	
SEAS173	US 70/Oak St/RR	Road Closure	Intersection	NA	0	0	0	0	0	\$115,000	Visionary	Johnston County	Selma	UCPRPO	
SEAS178	NC 42/Amelia Church Rd	Intersection Improvement	Intersection	Intersection	1	0	0	1	0	\$1,710,000	Near-Term	Johnston County	Clayton	CAMPO	
SEAS18	US 70/Ricks Rd/Outlet Center Drive	Intersection Improvement	Intersection	Intersection	1	0	0	0	0	\$1,710,000	Long-Term	Johnston County	Selma	UCPRPO	
SEAS20	Ten Ten Rd/Old Stage Rd	Intersection Improvement	Intersection	Intersection	1	1	1	1	0	\$1,710,000	Near-Term	Wake County	Wake County	CAMPO	
SEAS21	US 301/NC 50	Intersection Improvement	Intersection	Intersection	1	0	1	0	1	\$1,710,000	Near-Term	Johnston County	Benson	UCPRPO	
SEAS22	Market St/Brightleaf Blvd	Intersection Improvement	Intersection	Intersection	1	0	0	1	1	\$1,710,000	Long-Term	Johnston County	Smithfield	UCPRPO	
SEAS227	Creech Rd/Wilmington Rd	Intersection Realignment	Intersection	Intersection	1	0	1	1	0	\$1,180,000	Long-Term	Wake County	Wake County	CAMPO	
SEAS228	US 70/Aversboro Rd/5th Ave	Intersection Realignment	Intersection	Intersection	1	0	1	0	1	\$250,000	Long-Term	Wake County	Garner	CAMPO	
SEAS23	US 70/Guy Rd	Intersection Improvement	Intersection	Intersection	0	0	1	1	1	\$3,420,000	Mid-Term	Wake County	Wake County	CAMPO	
SEAS230	Benson Rd/Bufalo Rd	Intersection Improvement	Intersection	Intersection	1	0	1	1	1	\$1,710,000	Mid-Term	Wake County	Wake County	CAMPO	
SEAS231	Fayetteville Rd/Old Stage rd	Intersection Improvement	Intersection	Intersection	1	0	1	0	1	\$1,710,000	Near-Term	Wake County	Wake County	CAMPO	
SEAS232	Aversboro Rd/7th Ave/Vandora Av	Intersection Improvement	Intersection	Intersection	1	0	1	0	1	\$1,710,000	Visionary	Wake County	Garner	CAMPO	
SEAS24	I-95/US 70	Interchange	Interchange	Interchange	0	0	0	0	1	\$25,940,000	Long-Term	Johnston County	Selma	UCPRPO	
SEAS25	US 70/New Rand Rd	Intersection Improvement	Intersection	Intersection	1	0	1	0	1	\$1,710,000	Long-Term	Wake County	Garner	CAMPO	
SEAS26	Garner Rd/Yeargan Rd	Intersection Improvement	Intersection	Intersection	1	1	1	0	1	\$1,710,000	Near-Term	Wake County	Garner	CAMPO	
SEAS3	Jones Sausage Rd/RR	Road Closure	Intersection	NA	0	0	1	0	1	\$31,960,000	Long-Term	Wake County	Garner	CAMPO	
SEAS306	Market St/College Rd	Intersection Improvement	Intersection	Intersection	1	0	0	1	1	\$8,142,212	Visionary	Johnston County	Smithfield	UCPRPO	
SEAS307	Cleveland Rd/Swift Creek Rd	Intersection Improvement	Intersection	Intersection	1	0	0	1	0	\$2,097,595	Mid-Term	Johnston County	Johnston County	UCPRPO	
SEAS308	Market St/M Durwood Stephenson Hwy	Intersection Improvement	Intersection	Intersection	1	0	0	1	1	\$3,072,532	Long-Term	Johnston County	Smithfield	UCPRPO	
SEAS309	Brightleaf Blvd/Booker Dairy Rd	Intersection Improvement	Intersection	Intersection	1	0	0	0	1	\$3,072,532	Visionary	Johnston County	Smithfield	UCPRPO	
SEAS31	Bufalo Rd/Archer Lodge Rd	Intersection Improvement	Intersection	Intersection	0	0	1	1	0	\$1,710,000	Long-Term	Johnston County	Archer Lodge	CAMPO	

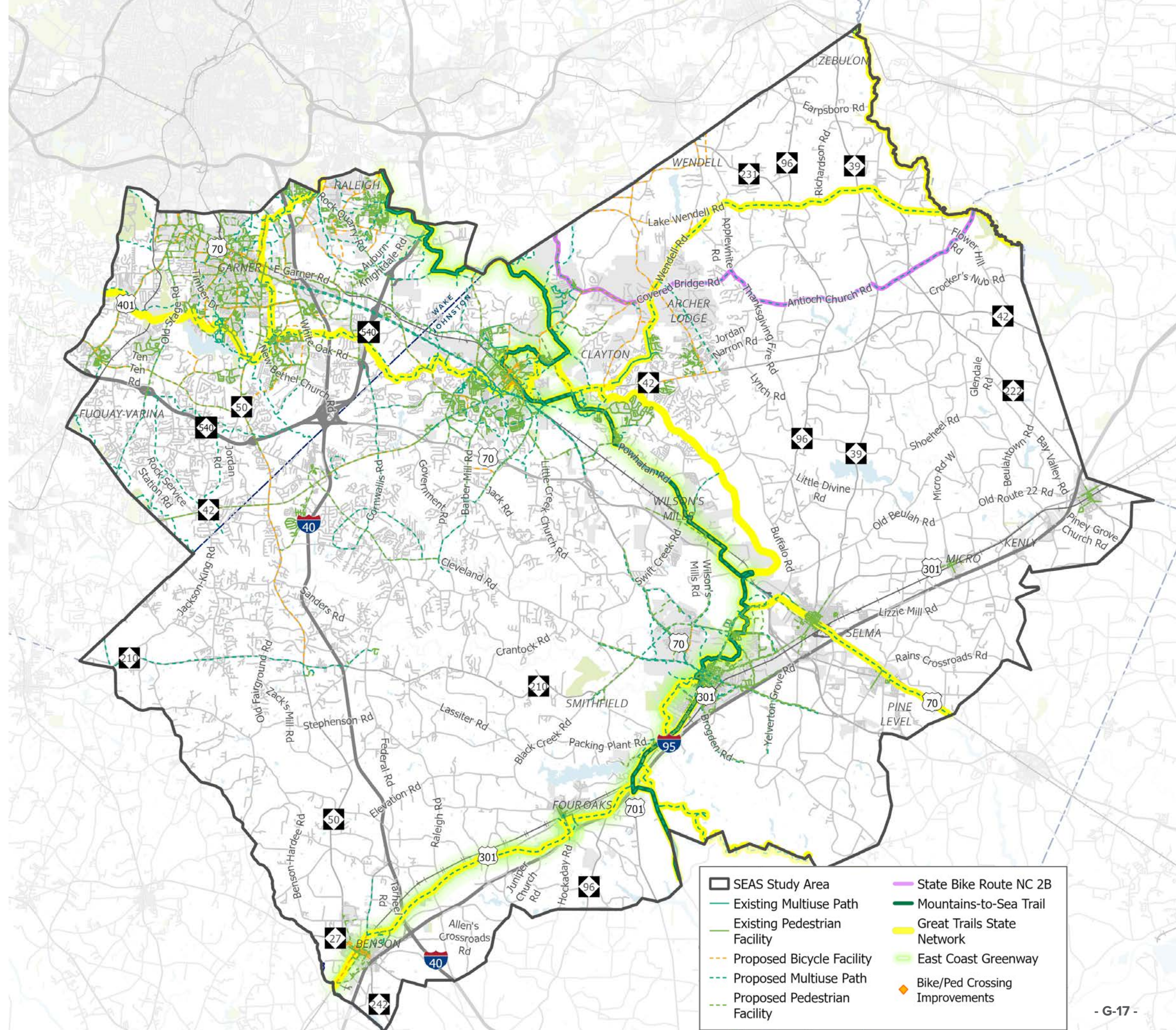


Project			Facility Type		Multimodal					Other Information					
ID	Location	Improvement	Existing	Proposed	Side-walk	Wide Should.	Bicycle	Multi-use	Transit	Cost	Horizon	County	Municipality	MPO	TIP No.
SEAS310	Brightleaf Blvd/Peedin Rd	Intersection Improvement	Intersection	Intersection	1	0	0	0	1	\$3,072,532	Visionary	Johnston County	Smithfield	UCPRPO	
SEAS311	Brightleaf Blvd/Dail St	Intersection Improvement	Intersection	Intersection	1	0	0	0	1	\$3,072,532	Visionary	Johnston County	Smithfield	UCPRPO	
SEAS312	Brightleaf Blvd/Hospital Rd	Intersection Improvement	Intersection	Intersection	1	0	0	0	1	\$3,072,532	Visionary	Johnston County	Smithfield	UCPRPO	
SEAS313	Brightleaf Blvd/Brogden Rd/Third St	Intersection Improvement	Intersection	Intersection	1	0	0	0	1	\$1,710,000	Long-Term	Johnston County	Smithfield	UCPRPO	
SEAS314	Outlet Center Dr	Intersection Improvement	Intersection	Intersection	1	0	0	0	1	\$354,523	Long-Term	Johnston County	Smithfield	UCPRPO	
SEAS315	I-95/Brogden Rd	Interchange	Interchange	Interchange	1	0	0	1	0	\$59,300,000	Long-Term	Johnston County	Smithfield	UCPRPO	
SEAS316	I-95/Truck Stop Rd	Interchange	Interchange	Interchange	0	0	0	0	0	\$20,480,000	Long-Term	Johnston County	Kenly	UCPRPO	
SEAS317	I-95/US 701/NC 96	Interchange	Interchange	Interchange	0	0	0	1	0	\$64,120,000	Long-Term	Johnston County	Four Oaks	UCPRPO	
SEAS318	Buffalo Rd/Fire Dept Rd/Little Divine Rd	Intersection Realignment	Intersection	Intersection	0	0	0	0	0	\$16,120,000	Long-Term	Johnston County	Johnston County	UCPRPO	
SEAS319	NC 242/Woodall Dairy Rd/Federal Road Ext	Intersection Realignment	Intersection	Intersection	0	0	0	0	0	\$3,830,000	Visionary	Johnston County	Benson	UCPRPO	
SEAS32	Mount Pleasant Rd/Old Fairground Rd/Edmonson Dr	Intersection Improvement	Intersection	Intersection	0	0	0	0	0	\$4,100,000	Mid-Term	Johnston County	Johnston County	CAMPO	
SEAS320	Wilson's Mills Rd/Fire Dept Rd	Intersection Realignment	Intersection	Intersection	1	0	0	0	1	\$4,610,000	Long-Term	Johnston County	Wilson's Mills	UCPRPO	
SEAS321	Glen Rd/Technology Dr	Intersection Improvement	Intersection	Intersection	1	0	0	0	0	\$3,080,000	Long-Term	Johnston County	Johnston County	CAMPO	
SEAS33	I-95/NC 50	Interchange	Interchange	Interchange	0	0	0	0	0	\$20,140,000	Mid-Term	Johnston County	Benson	UCPRPO	
SEAS35	NC 96/Live Oak Church Rd	Intersection Improvement	Intersection	Intersection	0	0	0	0	0	\$100,000	Long-Term	Johnston County	Johnston County	UCPRPO	
SEAS36	Market St/Fourth St	Intersection Improvement	Intersection	Intersection	1	0	0	1	1	\$2,363,487	Visionary	Johnston County	Smithfield	UCPRPO	
SEAS37	Market St/Fifth St	Intersection Improvement	Intersection	Intersection	1	0	0	1	1	\$1,710,000	Visionary	Johnston County	Smithfield	UCPRPO	
SEAS38	NC 210/Cleveland Rd	Intersection Improvement	Intersection	Intersection	1	0	0	1	0	\$1,710,000	Long-Term	Johnston County	Johnston County	UCPRPO	
SEAS39	NC 242/Tarheel Rd	Intersection Improvement	Intersection	Intersection	0	0	0	0	0	\$100,000	Near-Term	Johnston County	Benson	UCPRPO	
SEAS3a	Buffalo Rd/Noble St/Baugh Rd	Intersection Improvement	Intersection	Intersection	0	0	0	1	0	\$1,710,000	Long-Term	Johnston County	Johnston County	UCPRPO	
SEAS3b	Buffalo Rd/RR	Grade Separation	NA	Grade Separation	0	0	0	1	0	\$6,320,000	Long-Term	Johnston County	Selma	UCPRPO	
SEAS41	Polenta Rd/McLemore Rd	Intersection Improvement	Intersection	Intersection	0	0	0	0	0	\$1,710,000	Visionary	Johnston County	Johnston County	CAMPO	
SEAS433	Equity Dr/Peedin Rd Ext	Intersection Realignment	Intersection	Intersection	1	0	0	0	0	\$900,000	Visionary	Johnston County	Smithfield	UCPRPO	
SEAS434	Equity Dr/Peedin Rd Ext	Intersection Realignment	Intersection	Intersection	1	0	0	0	0	\$950,000	Visionary	Johnston County	Smithfield	UCPRPO	
SEAS45	Hammond Rd/Tryon Rd	Intersection Improvement	Intersection	Intersection	1	0	1	0	1	\$1,710,000	Long-Term	Wake County	Raleigh	CAMPO	
SEAS47	I-95/US 70 BYP	Interchange	Interchange	Interchange	0	0	0	0	1	\$35,000,000	Long-Term	Johnston County	Smithfield; Johnston County	UCPRPO	
SEAS48	Mechanical Blvd/Yeargan Rd	Intersection Improvement	Intersection	Intersection	1	1	1	0	0	\$100,000	Long-Term	Wake County	Garner	CAMPO	
SEAS4a	Cleveland Rd/Barber Mill Rd	Intersection Improvement	Intersection	Intersection	1	0	0	1	0	\$100,000	Mid-Term	Johnston County	Johnston County	CAMPO	
SEAS4b	Barber Mill Rd/Government Rd	Intersection Improvement	Intersection	Intersection	0	0	0	1	0	\$100,000	Mid-Term	Johnston County	Johnston County	CAMPO	
SEAS5	Cleveland Rd/Cornwallis Rd	Intersection Improvement	Intersection	Intersection	1	0	0	1	0	\$1,710,000	Mid-Term	Johnston County	Johnston County	CAMPO	
SEAS50	US 70/Raynor Rd	Intersection Improvement	Intersection	Intersection	1	0	0	1	1	\$1,710,000	Mid-Term	Wake County	Wake County	CAMPO	
SEAS51	I-40/I-95	Interchange	Interchange	Interchange	0	0	0	0	0	\$219,770,000	Long-Term	Johnston County	Johnston County	UCPRPO	
SEAS52	White Oak Rd/Hebron Church Rd/Ackerman Rd	Intersection Realignment	Intersection	Intersection	1	0	1	0	0	\$1,070,000	Mid-Term	Wake County	Garner	CAMPO	
SEAS53	I-95/Market St	Interchange	Interchange	Interchange	1	0	0	0	0	\$34,500,000	Long-Term	Johnston County	Smithfield	UCPRPO	
SEAS6	Cornwallis Rd/Josephine Rd	Intersection Improvement	Intersection	Intersection	0	0	0	1	0	\$100,000	Long-Term	Johnston County	Johnston County	CAMPO	
SEAS66	Auburn Church Rd/Wall Store Rd	Intersection Realignment	Intersection	Intersection	1	0	1	0	0	\$2,140,000	Long-Term	Wake County	Wake County	CAMPO	
SEAS68	Cleveland Crossing Dr/Walmart access	Intersection Improvement	Intersection	Intersection	0	0	0	1	0	\$3,080,000	Long-Term	Johnston County	Johnston County	CAMPO	
SEAS7	NC 42/Cornwallis Rd	Intersection Improvement	Intersection	Intersection	1	0	1	1	0	\$1,710,000	Near-Term	Johnston County	Johnston County	CAMPO	
SEAS72	Cleveland Crossing Dr/Cleveland Crossing Dr Ext	Intersection Realignment	Intersection	Intersection	0	0	0	0	0	\$490,000	Long-Term	Johnston County	Johnston County	CAMPO	
SEAS74	Guy Rd/Amelia Church Rd	Intersection Improvement	Intersection	Intersection	1	0	1	1	0	\$1,710,000	Near-Term	Johnston County	Clayton	CAMPO	
SEAS75	I-40/Elevation Rd	Interchange	NA	Interchange	0	0	0	0	1	\$41,980,000	Near-Term	Johnston County	Johnston County	CAMPO	
SEAS76	I-95/Selma-Pine Level Rd	Interchange	Interchange	Interchange	0	0	0	0	1	\$46,760,000	Visionary	Johnston County	Johnston County	UCPRPO	
SEAS77	Brightleaf Blvd/Galilee Rd	Intersection Improvement	Intersection	Intersection	1	0	0	1	1	\$1,710,000	Long-Term	Johnston County	Smithfield	UCPRPO	
SEAS78	US 70 BUS/Shotwell Rd	Intersection Improvement	Intersection	Intersection	1	0	1	1	1	\$1,710,000	Near-Term	Johnston County	Clayton	CAMPO	
SEAS79	NC 50/Mount Pleasant Rd/Sanders Rd	Intersection Improvement	Intersection	Intersection	0	0	1	0	0	\$1,710,000	Mid-Term	Johnston County	Johnston County	CAMPO	
SEAS80	US 70 BUS/Powhatan Rd	Intersection Improvement	Intersection	Intersection	1	0	0	1	1	\$1,710,000	Visionary	Johnston County	Clayton	CAMPO	
SEAS81	Cornwallis Rd/Old Drug Store Rd	Intersection Realignment	Intersection	Intersection	1	0	0	1	0	\$680,000	Long-Term	Johnston County	Johnston County	CAMPO	
SEAS82	US 70/Ranch Road	Interchange	Interchange	Interchange	1	0	0	1	0	\$10,240,000	Mid-Term	Johnston County	Johnston County	CAMPO	
SEAS83	Covered Bridge Rd/City Rd	Intersection Improvement	Intersection	Intersection	1	0	1	1	0	\$1,710,000	Long-Term	Johnston County	Clayton	CAMPO	
SEAS9	Buffalo Rd/Covered Bridge Rd/Wendell Rd	Intersection Improvement	Intersection	Intersection	1	0	1	1	0	\$1,710,000	Long-Term	Johnston County	Archer Lodge	CAMPO	
SEAS99	Webb St/RR	Road Closure	Intersection	NA	0	0	0	0	1	\$115,000	Long-Term	Johnston County	Selma	UCPRPO	

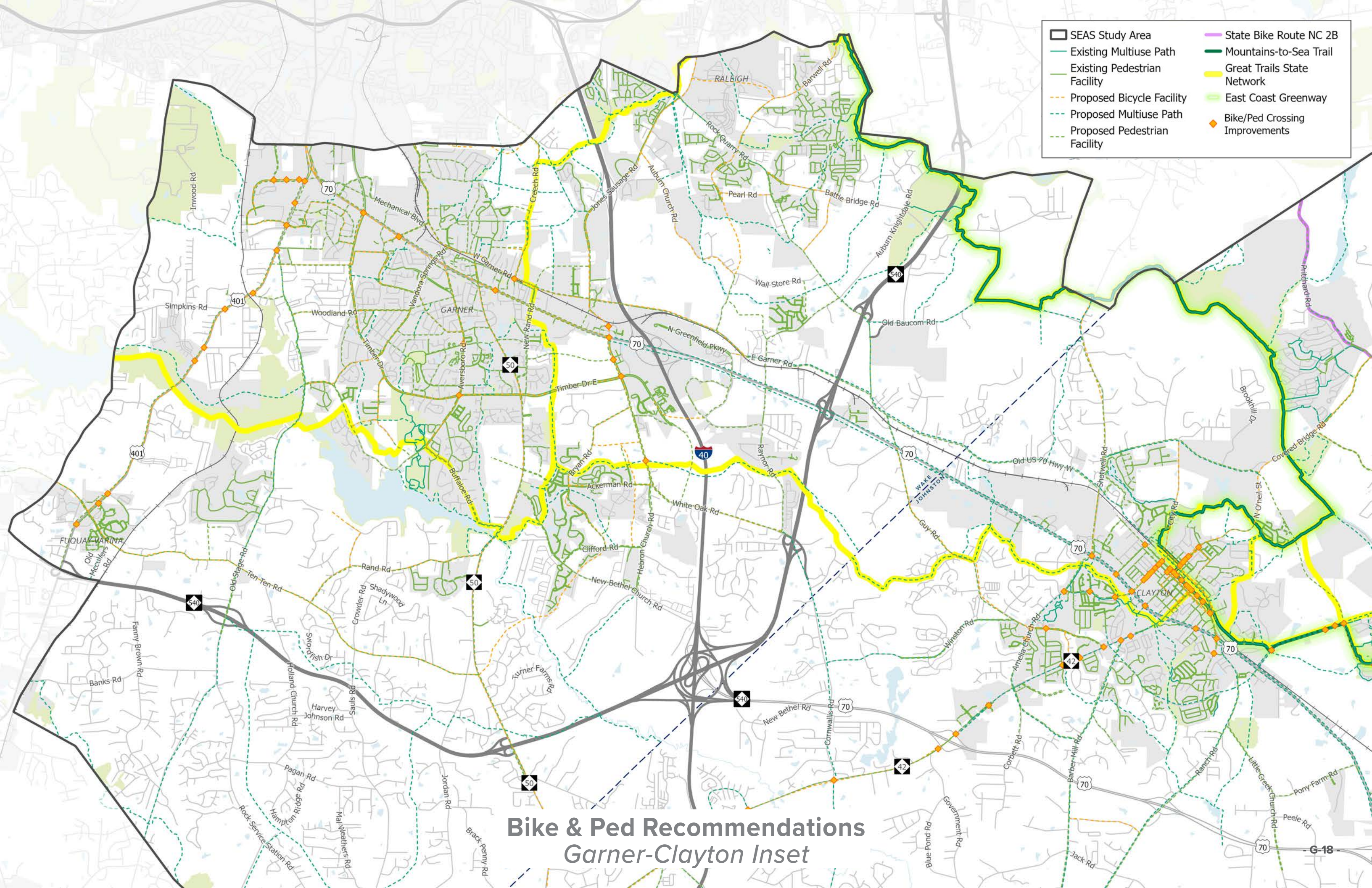


# SEAS UPDATE

## Bicycle & Pedestrian Recommendations



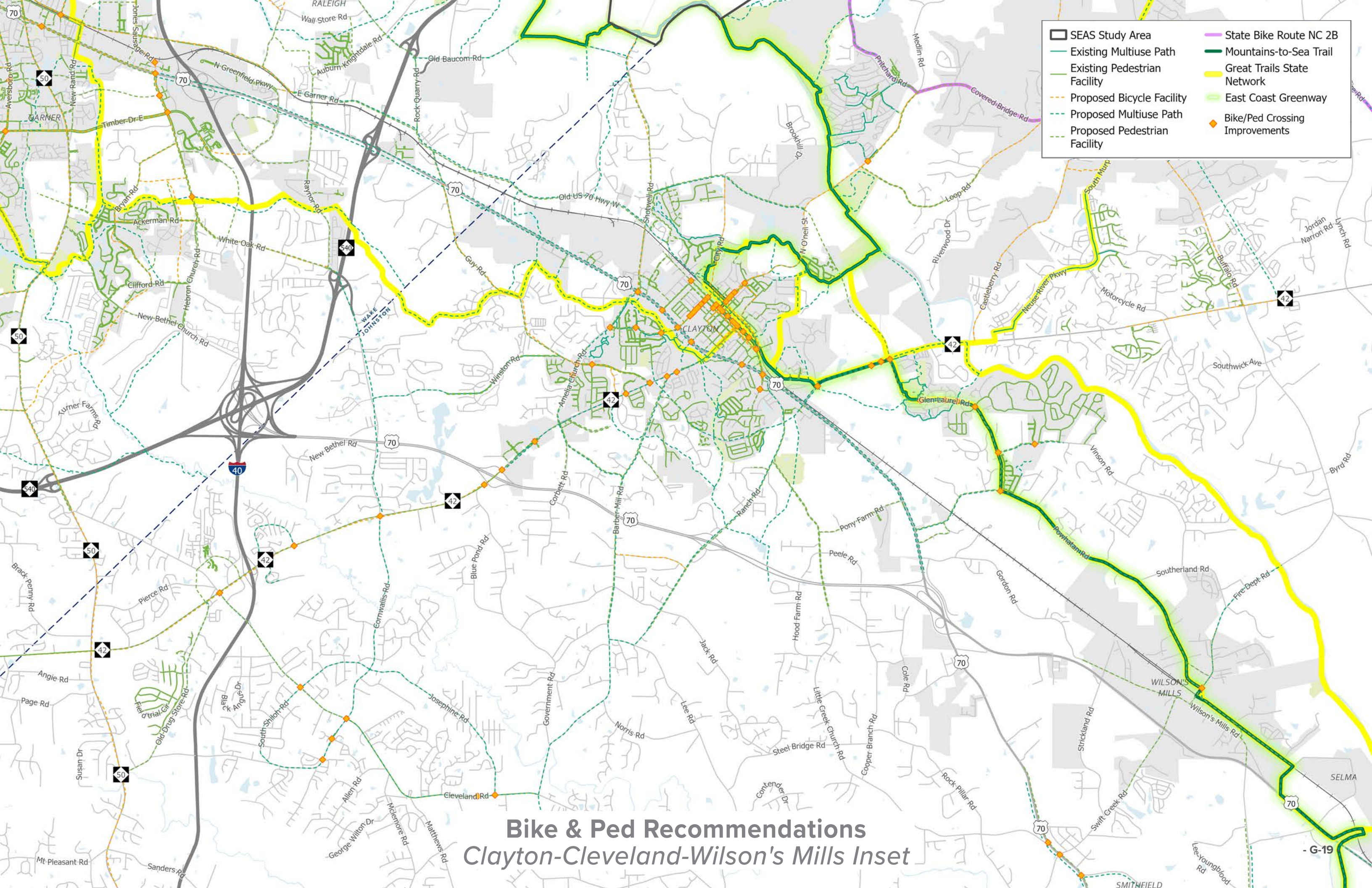




- SEAS Study Area
- Existing Multiuse Path
- Existing Pedestrian Facility
- Proposed Bicycle Facility
- Proposed Multiuse Path
- Proposed Pedestrian Facility
- State Bike Route NC 2B
- Mountains-to-Sea Trail
- Great Trails State Network
- East Coast Greenway
- Bike/Ped Crossing Improvements

**Bike & Ped Recommendations**  
*Garner-Clayton Inset*

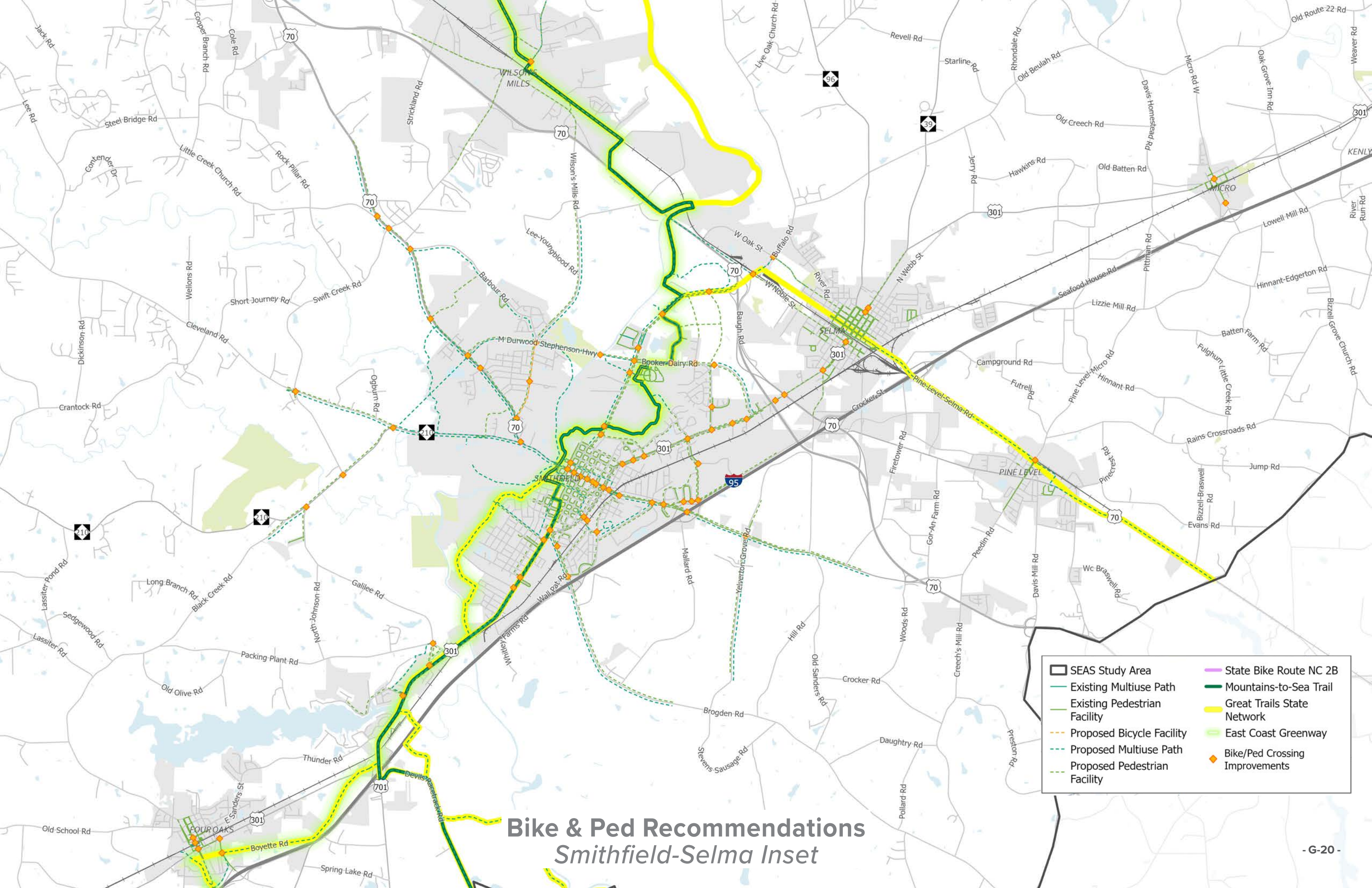




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- Proposed Bicycle Facility
- Proposed Multiuse Path
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- Mountains-to-Sea Trail
- Great Trails State Network
- East Coast Greenway
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**Bike & Ped Recommendations**  
*Clayton-Cleveland-Wilson's Mills Inset*





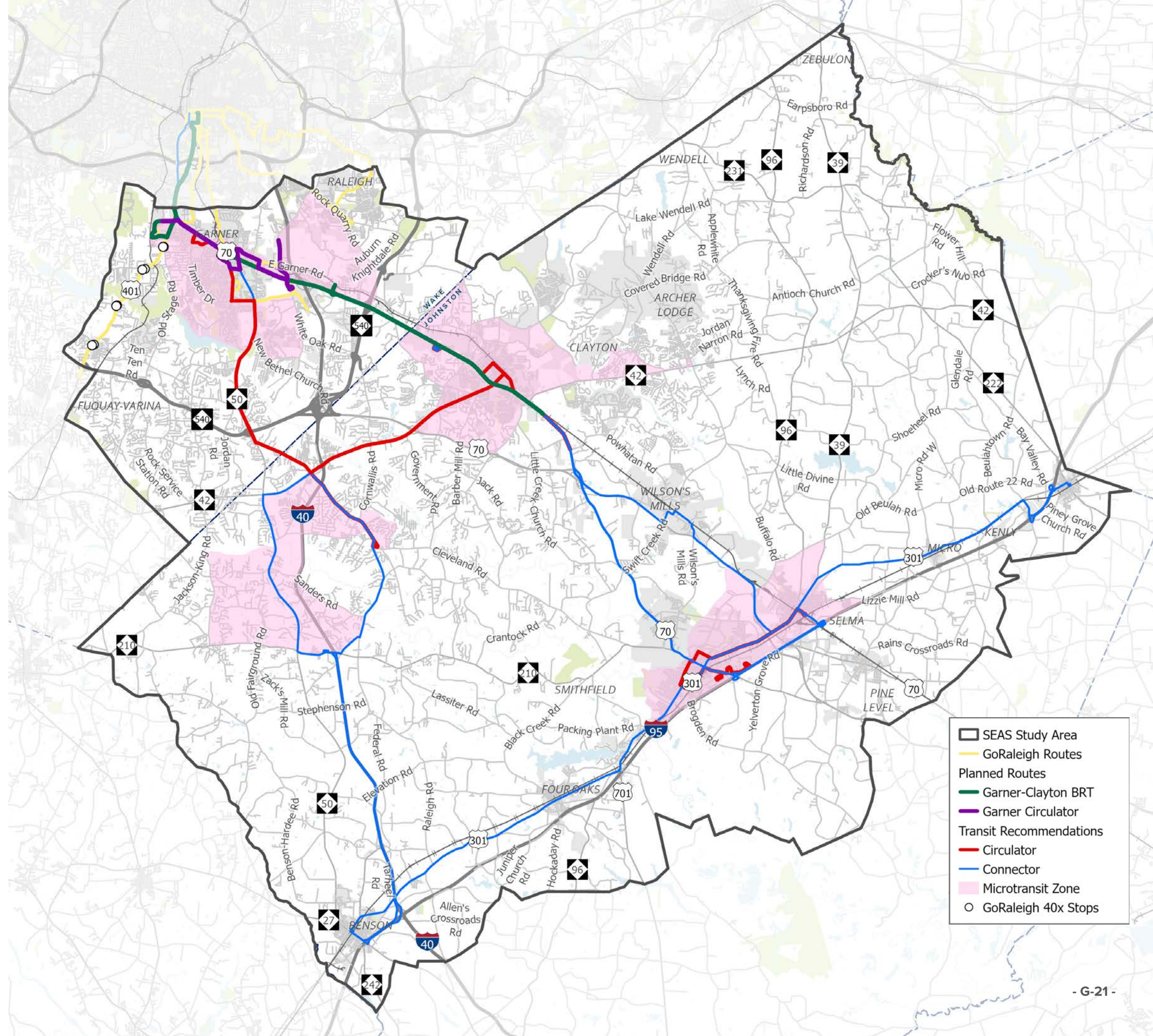
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|------------------------------|--------------------------------|
| SEAS Study Area              | State Bike Route NC 2B         |
| Existing Multiuse Path       | Mountains-to-Sea Trail         |
| Existing Pedestrian Facility | Great Trails State Network     |
| Proposed Bicycle Facility    | East Coast Greenway            |
| Proposed Multiuse Path       | Bike/Ped Crossing Improvements |
| Proposed Pedestrian Facility |                                |

## Bike & Ped Recommendations Smithfield-Selma Inset



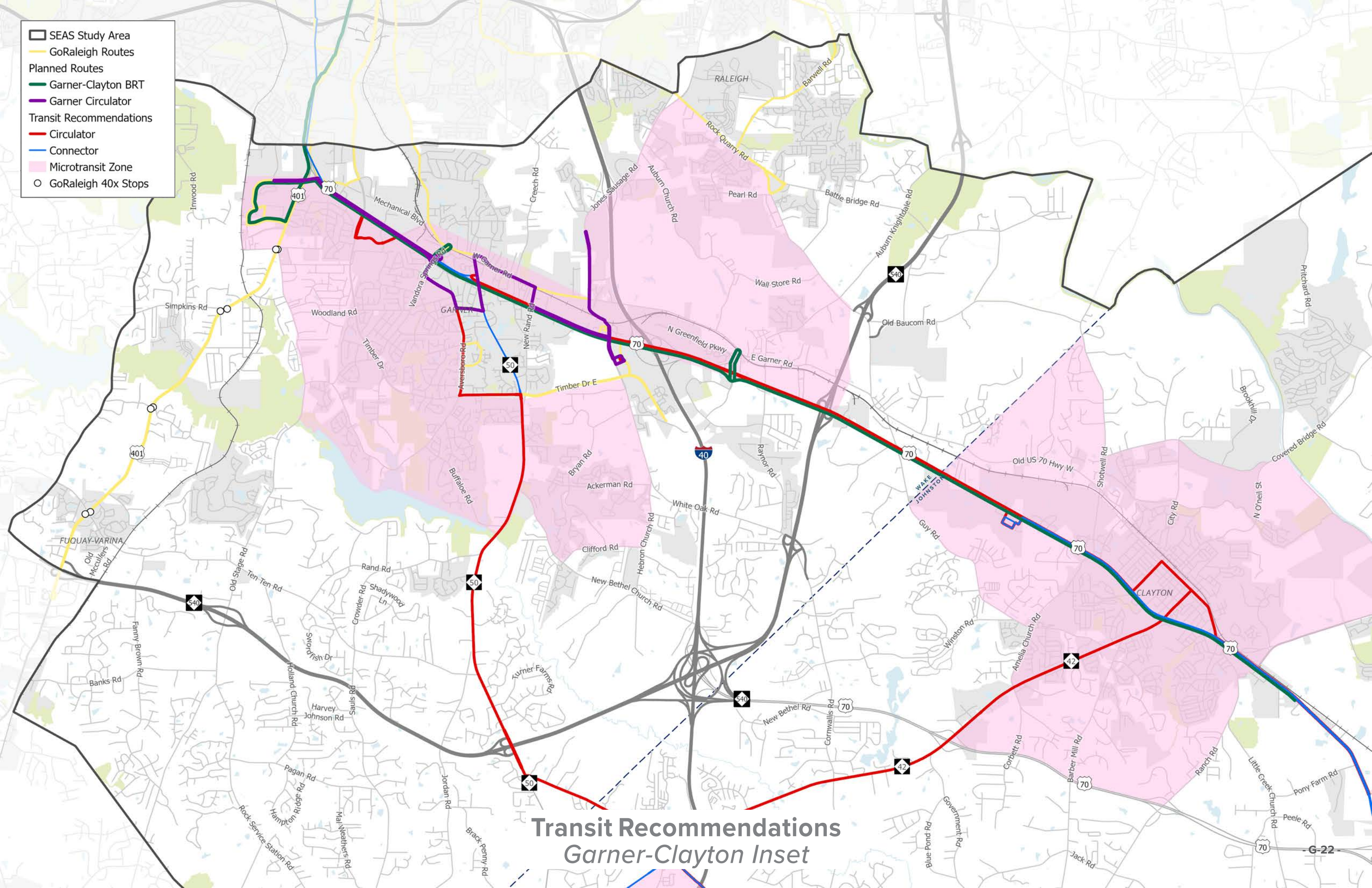
# SEAS UPDATE

## Transit Recommendations



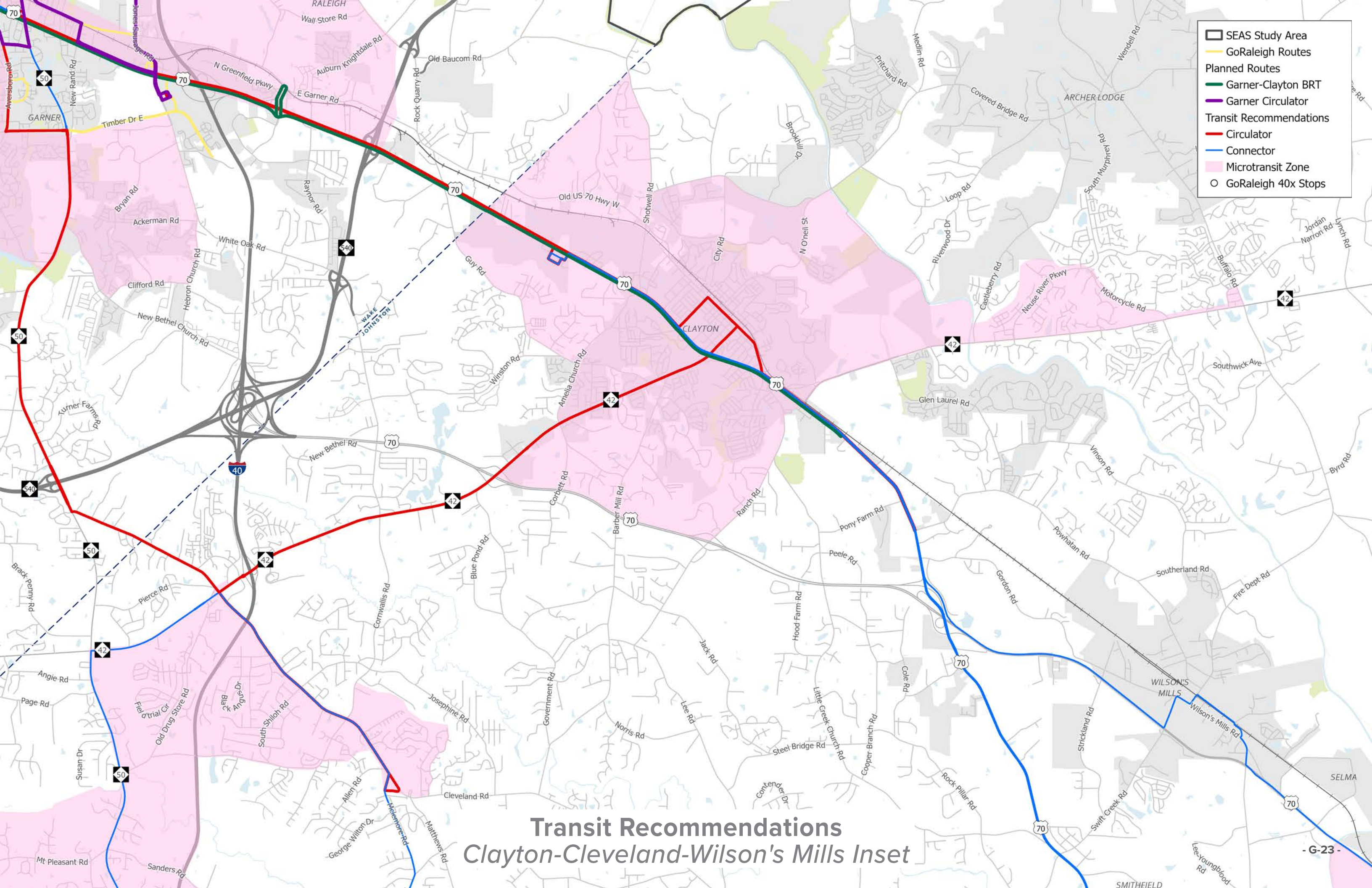


- SEAS Study Area
- GoRaleigh Routes
- Planned Routes
- Garner-Clayton BRT
- Garner Circulator
- Transit Recommendations
- Circulator
- Connector
- Microtransit Zone
- GoRaleigh 40x Stops



## Transit Recommendations Garner-Clayton Inset

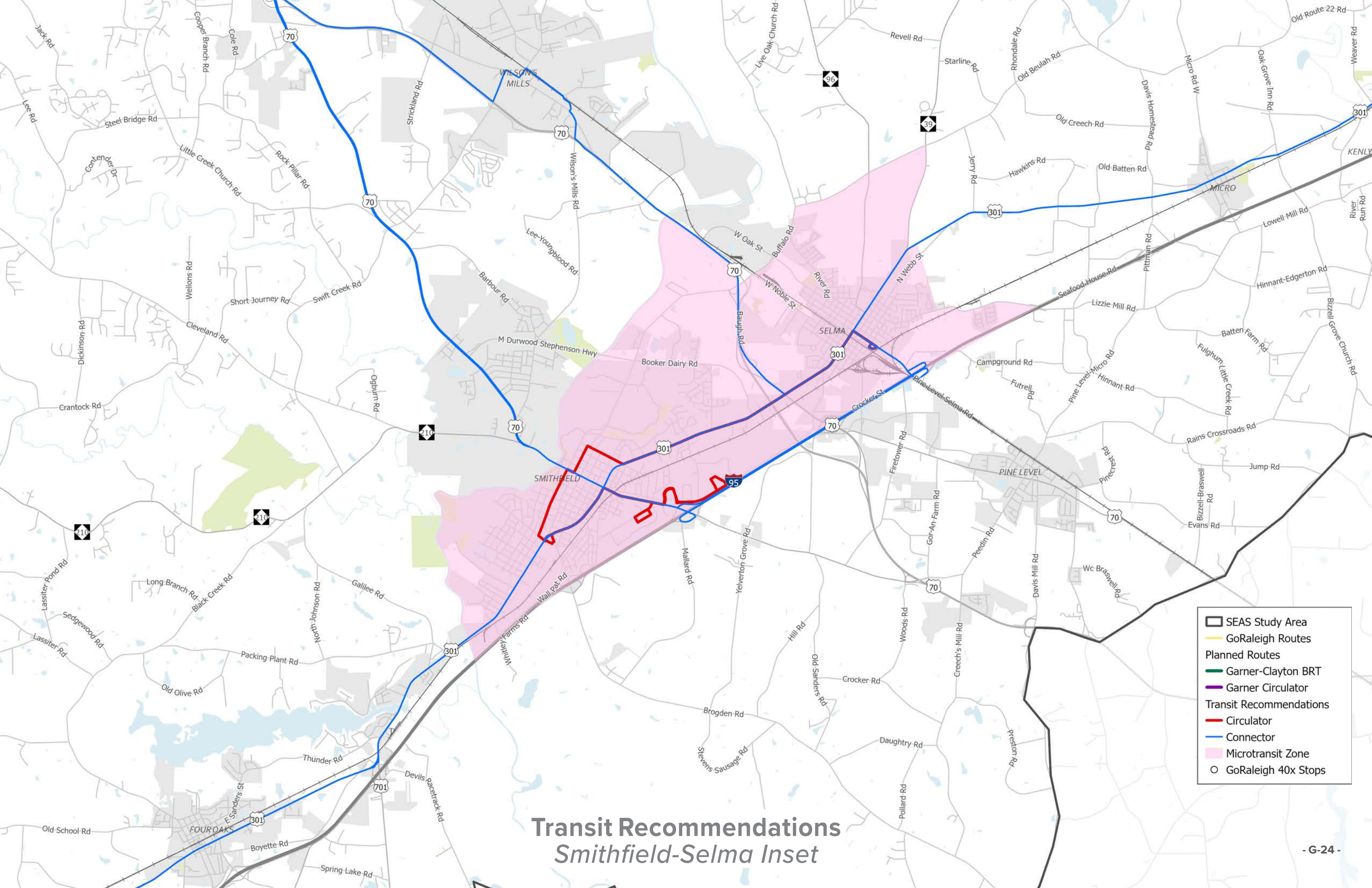




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- Garner-Clayton BRT
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- Transit Recommendations
- Circulator
- Connector
- Microtransit Zone
- GoRaleigh 40x Stops

**Transit Recommendations**  
*Clayton-Cleveland-Wilson's Mills Inset*





## Transit Recommendations Smithfield-Selma Inset

- SEAS Study Area
- GoRaleigh Routes
- Planned Routes
- Garner-Clayton BRT
- Garner Circulator
- Transit Recommendations
- Circulator
- Connector
- Microtransit Zone
- GoRaleigh 40x Stops