

GREATER TRIANGLE COMMUTER RAIL STUDY UPDATE

GO FORWARD

A COMMUNITY INVESTMENT IN TRANSIT

September 2021

GoTriangle Board of Trustees
Special Meeting

Study Partners



Study funding partners



Oversee the Triangle's transportation planning and funding activities



Project sponsor



Sponsors intercity passenger rail on the corridor and has other rail-highway safety mandates



Owns and leases the rail corridor

EXISTING RAIL CORRIDOR

Freight Rail – Heavy Rail

- Freight operation constitutes the movement of goods and cargo in freight rolling stock (e.g., boxcars, flatcars), which are typically hauled by diesel-powered locomotives.
- The North Carolina Railroad Company (NCRR) owns the 317-mile corridor and Class I freight rail provider Norfolk Southern operates and maintains the railroad through a long-term lease with NCRR

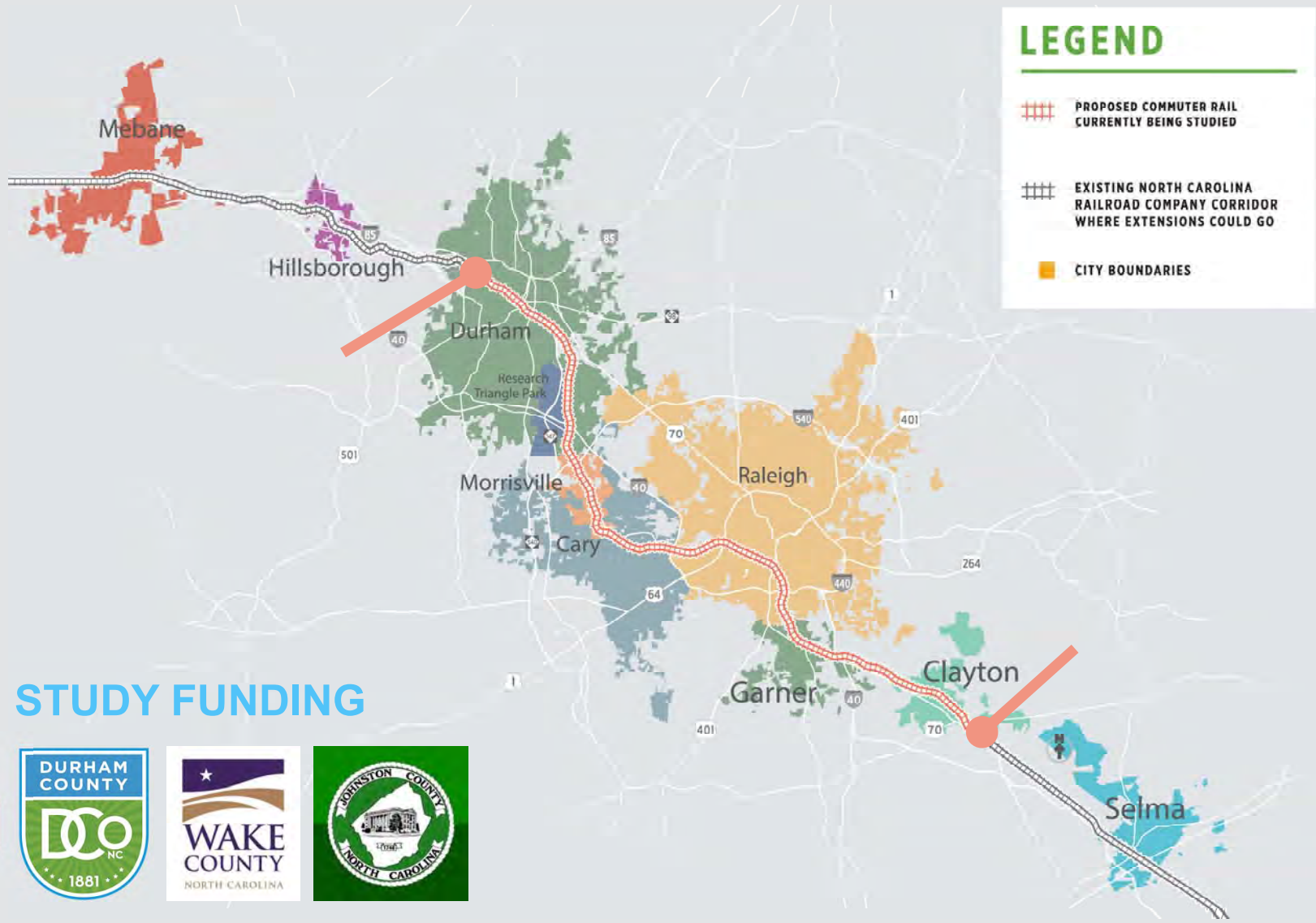
Intercity Rail – Heavy Rail, Shared Track

- Intercity transit mode services covering longer distances than commuter or regional trains
- The main provider of intercity passenger rail service in the U.S. is Amtrak
- Four intercity passenger service routes run on the North Carolina Railroad including the Carolinian and the Piedmont which are sponsored by NCDOT

The North Carolina Railroad is built for the service it currently offers

Added capacity, including commuter rail, would require additional infrastructure, including added tracks





What Did we Learn From Previous Studies?

High-level Planning Studies Completed to Date for Durham – Clayton CRT:

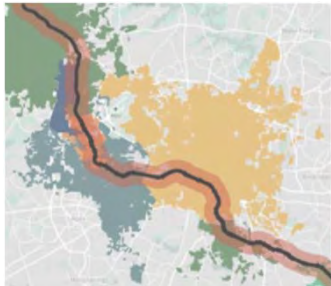
- Wake-Durham Commuter Rail Major Investment Study (2019)
- Greater Triangle Commuter Rail Phase 1 Feasibility Study (2020)
- All estimates preliminary and subject to change as additional studies completed

10K + Trips in 2040 (~2,200 today)	0:45 – 50 Durham to Raleigh (DRX = 0:60 - 80)	\$1.8-2.1B Capital Cost (\$YOE)	\$29-37M Operating Cost (\$2019)
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What is in the current study?

Rail Analysis



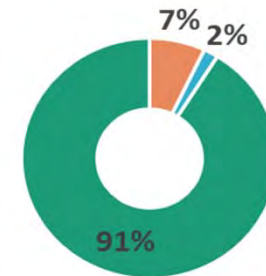
- Stop locations and schedules
- Rail infrastructure: track, bridges, vehicles
- Ridership and rail capacity modeling

Opportunity Analysis



- Affordable housing
- Access to Jobs
- Land Use
- Job Creation Potential

Engagement



- Three rounds of public engagement
- Business + colleges
- Focus groups
- Local governments
- Railroads



Key Focus Areas

- Railroad Coordination
- Local Engagement
- Assess Feasibility in Key Areas
- Evaluate Decision-Making Metrics
- Monitor Federal Funding Eligibility
- Facilitate Cost-Sharing Discussions
- Build Capacity for Implementation



Planning Study Status

MONICA BARROW, PROJECT MANAGER, STV

MORIAH ELLINGTON, ENGINEERING LEAD, STV

Feasibility Study Phase 2 Objectives



Refine the
project concept



Estimate
benefits



Update cost
estimates and
potential for
FTA funding



Document risks

Concept Refinement | *Service*

- Stations
- Train schedule
 - Retained assumptions from Phase 1
 - **Refined the train schedule** to improve timing of bus service at Regional Transit Center in Durham
 - **Provided train schedule to Norfolk Southern for simulation**

8-2-8-2 = 40 trains per day:

- 8 round trips in the morning peak (16 trains)
- 2 mid-day round trips (4 trains)
- 8 round trips in the afternoon peak (16 trains)
- 2 evening round trips (4 trains)

Concept Refinement | *What to Build/Buy*

- An additional track within existing right-of-way
- 14 stations in Durham and Wake Counties
- Comply with Americans with Disabilities Act (ADA) requirements
- Train storage and maintenance facility
- Trains (rolling stock)

- 40 miles of track
- More than 40 bridges to widen
- 34 at-grade crossings to modify

Concept Refinement | *Durham Goals*

- Add required track capacity
- Improve clearance under rail bridges
- Improve pedestrian/cyclist mobility
- Preserve connection between Transit Center and train station
- Minimize impacts to roadway, traffic, historic structures
- Comply with Norfolk Southern and NCDOT requirements



Review of Durham Existing Conditions

§ Live walk-through

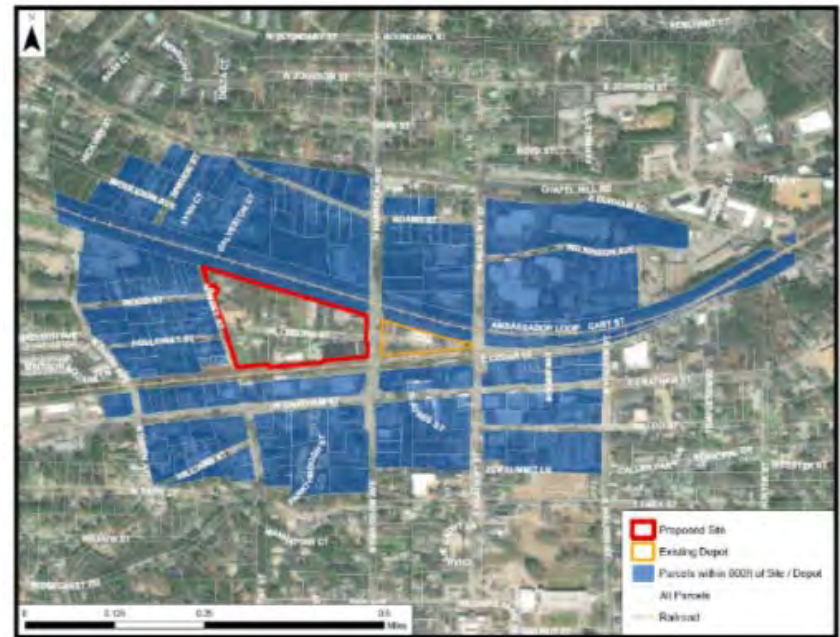


Durham Concept Development

- Identified six initial concepts to begin discussions around strengths and weaknesses
- Partner/stakeholder engagement with City of Durham, County of Durham, Downtown Durham Inc., NCDOT, and NCRR
- Discussions led to refinements and new concepts
- **Focused now on two concepts with best ability to meet goals with fewest impacts**

Concept Refinement | Cary Goals

- Add required track capacity
- Provide compatibility with plans for new multimodal facility
- Improve pedestrian/cyclist mobility
- Minimize impacts to roadways, traffic, historic structures
- Comply with Norfolk Southern, CSX, and NCDOT requirements



Review of Cary Existing Conditions

- Live walk-through

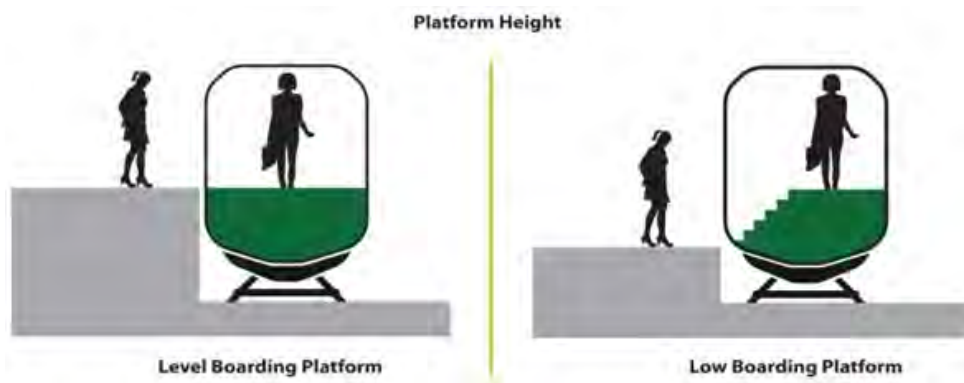


Cary Concept Development

- Identified three initial concepts to begin discussions around strengths and weaknesses
- Partner/stakeholder engagement with Town of Cary, NCDOT, and NCRR
- Discussions helped evolve two acceptable concepts
- **Focused now on traffic analysis and visualization tools**

Service and Infrastructure Refinement

- Evaluating feasibility of alternatives to 8-2-8-2 service
- Comparing approaches to ADA compliance



- Potential for alternative rolling stock

Estimating Benefits | *Ridership*

- In Phase 1, created regional model using FTA software
- Phase 2:
 - **Refined the model**
 - **Reviewed the results with FTA and have obtained approval**
- Model will soon reflect region's most up-to-date plans for transit service, including BRT. Will then be used for scenario testing and updated estimates of commuter rail ridership.

The News & Observer

Apple is coming to the Triangle sooner, investing millions in a temporary Cary office

 Raleigh News & Observer

Chicago-based precision medicine company plans 200-job expansion into RTP

**TRIANGLE
BUSINESS JOURNAL**

Cree LED inks deal for new headquarters space in Research Triangle Park

Google to create engineering hub in Durham, add 1,000+ jobs



Thursday, March 18, 2021

Estimating Economic Benefits

Using industry-standard software to measure potential impact of commuter rail on:

- Quality of life
- Employment connectivity
- Smart development
- Job growth

Putting It All Together



NS modeling →
infrastructure
requirements →
capital costs



Capital cost and
ridership →
Potential for FTA
funding



Opportunity analysis
(TJCOG) will round
out the information

QUESTIONS?

Next up: Proposed Station Areas

Proposed Station Areas

JAY HEIKES, SENIOR PLANNER



Live walk-through

Public Engagement

SCOTT THOMAS, CHIEF COMMUNICATIONS OFFICER

LIZ RASKOPF, PUBLIC ENGAGEMENT SUPERVISOR



Commuter Rail Project: Public Engagement Update

GoTriangle Transit Information Station, 733 Foster Street, Durham

Engagement to Date

Rounds I & II

Public Engagement

In-person

Virtual

Print, Digital & Online Engagement

Round III



355 hours
canvassing, tabling
& attending
community
events in-person



131 hours
of virtual
presentations,
community
meetings
& listening sessions

Plan a Trip

Maynard Crossing, Northwest Maynard Road, Cary, NC, USA

Dorcas Ministries, High House Road, Cary, NC, USA

Arrive By

Leaving Now

Depart At

Arrive By

Plan Trip ▶

Thu, Mar

Plan a Trip

Maynard Crossing, Northwest Maynard Road, Cary, N

Dorcas Ministries, High House Road, Cary, NC, USA

Arrive By

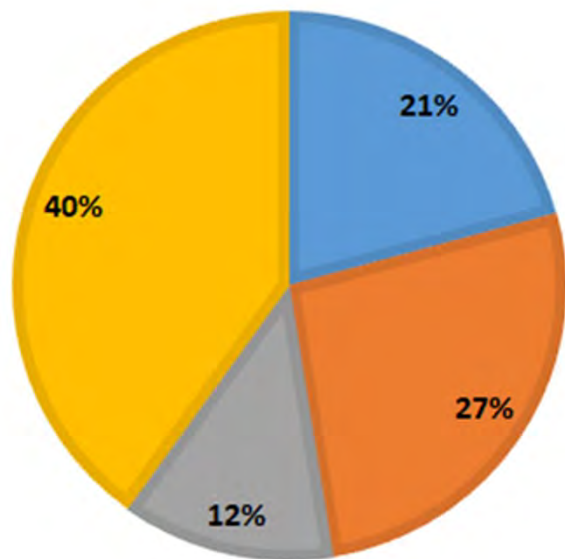
12:00 p.m.

Thu, Mar 18th

Plan Trip ▶



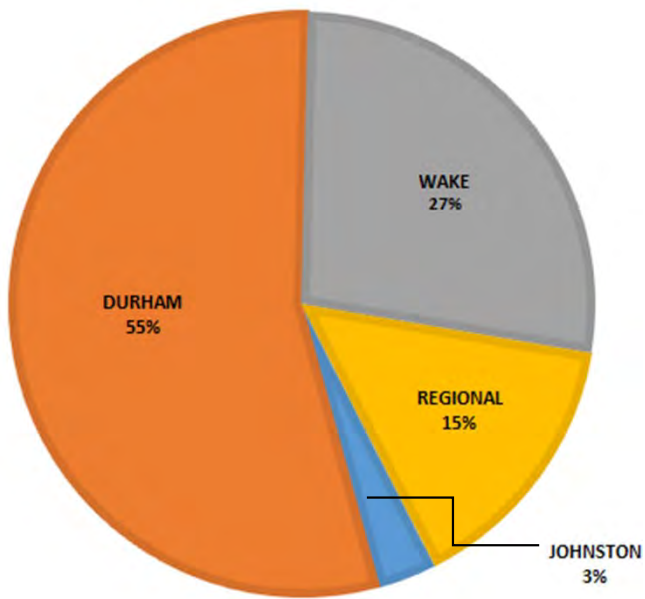
Touchpoints by Tactic



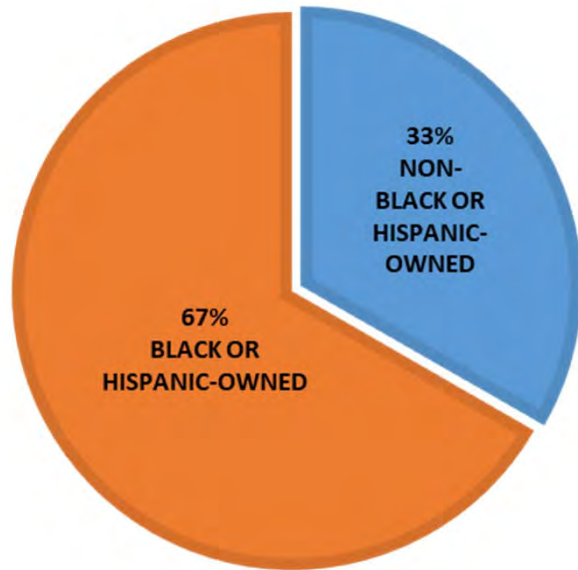
*217 total touchpoints



Corridor-Wide Engagement by County



22 Businesses Canvassed



42 Stakeholder Presentations

Durham



Wake



Johnston



Regional



TDM Partners

ReadyForRailInc.com

1,929 Commuter Rail Insider Subscribers

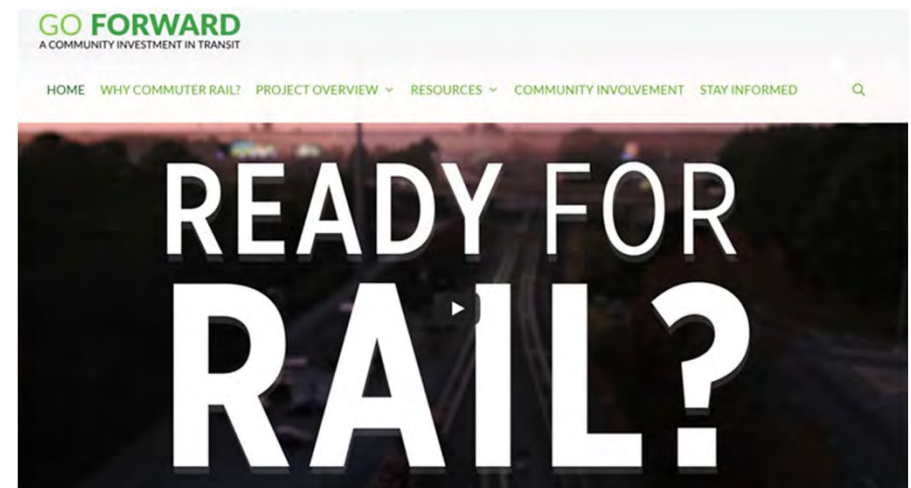
35,474 page views since inception

Top 5 Pages Visited

1. Home
2. Proposed Stations
3. Why Commuter Rail
4. Project Updates Stay Informed
5. Surveys

Top 5 Referral Sources

1. facebook.com
2. twitter.com
3. abc11.com
4. gotriangle.org
5. reddit.com



Digital, Print and Online Engagement

Email Campaigns distributed to over 6,700 subscribers:

- *Commuter Rail Insider (1,929)*
- *GoForward Durham and Wake Transit Plan Update Subscribers (4,408)*
- *Regional Community Contacts (372)*

READY FOR RAIL?

READYFORRAILNC.COM

Diagram illustrating rail routes and service types:

- CURRENTLY BEING STUDIED IN DURHAM/WAKE COUNTIES
- WILL USE EXISTING NC RAILROAD CORRIDOR
- COULD RUN UP TO 43 MILES
- WEST DURHAM THROUGH RALEIGH TO GARNER OR CLAYTON
- REGIONAL SERVICE

Printed materials shown include:

- READY FOR RAIL? JOIN NOW!
- GREATER TRIANGLE COMMUNITY RAIL IN 2021
- READY FOR RAIL?

Durham Public Library

Transit Display

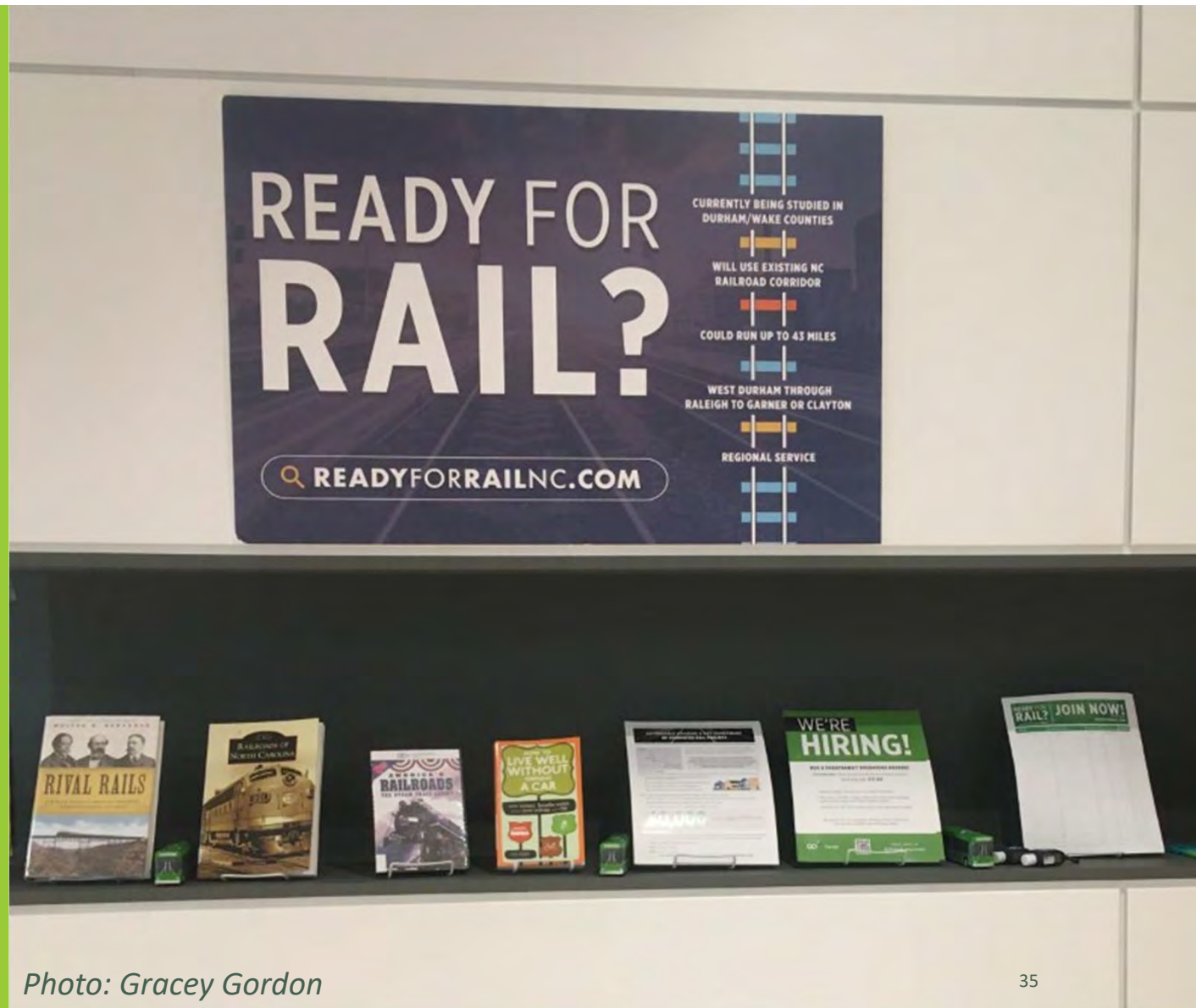
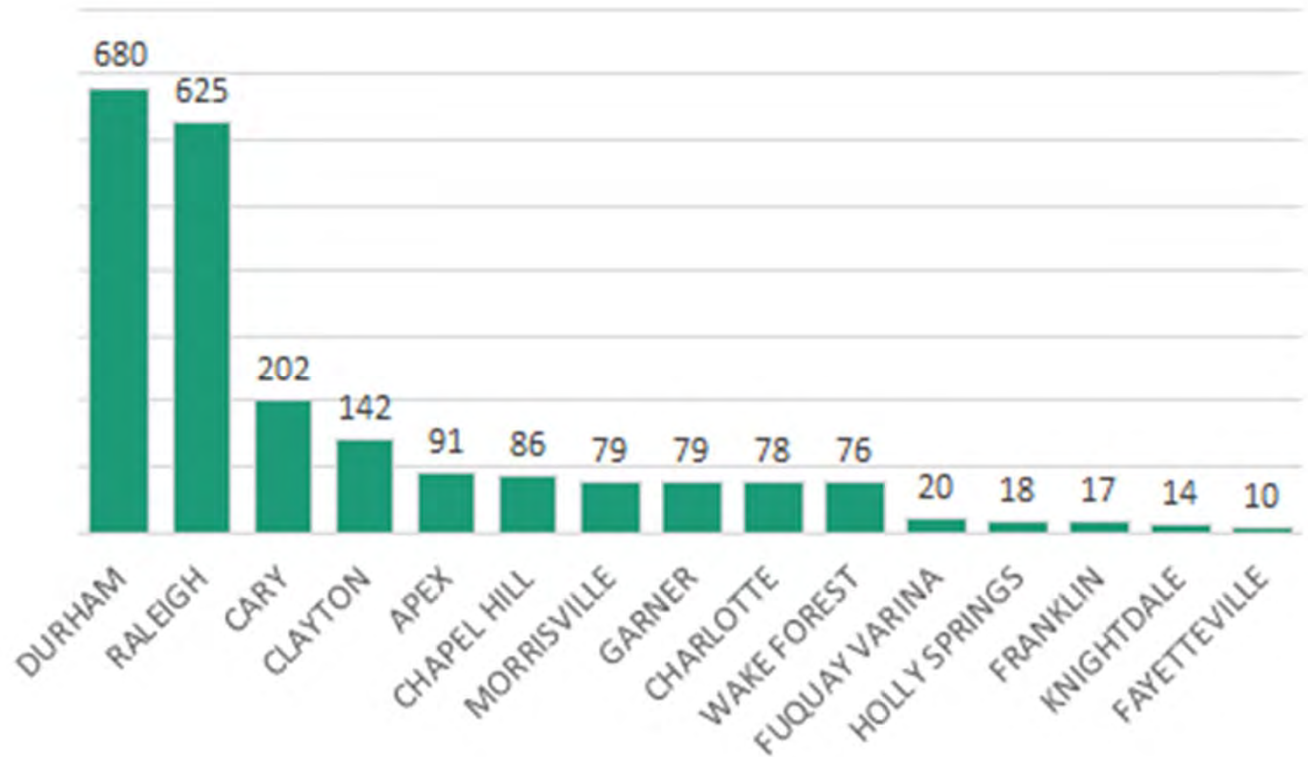


Photo: Gracey Gordon

Survey Participation by Municipality



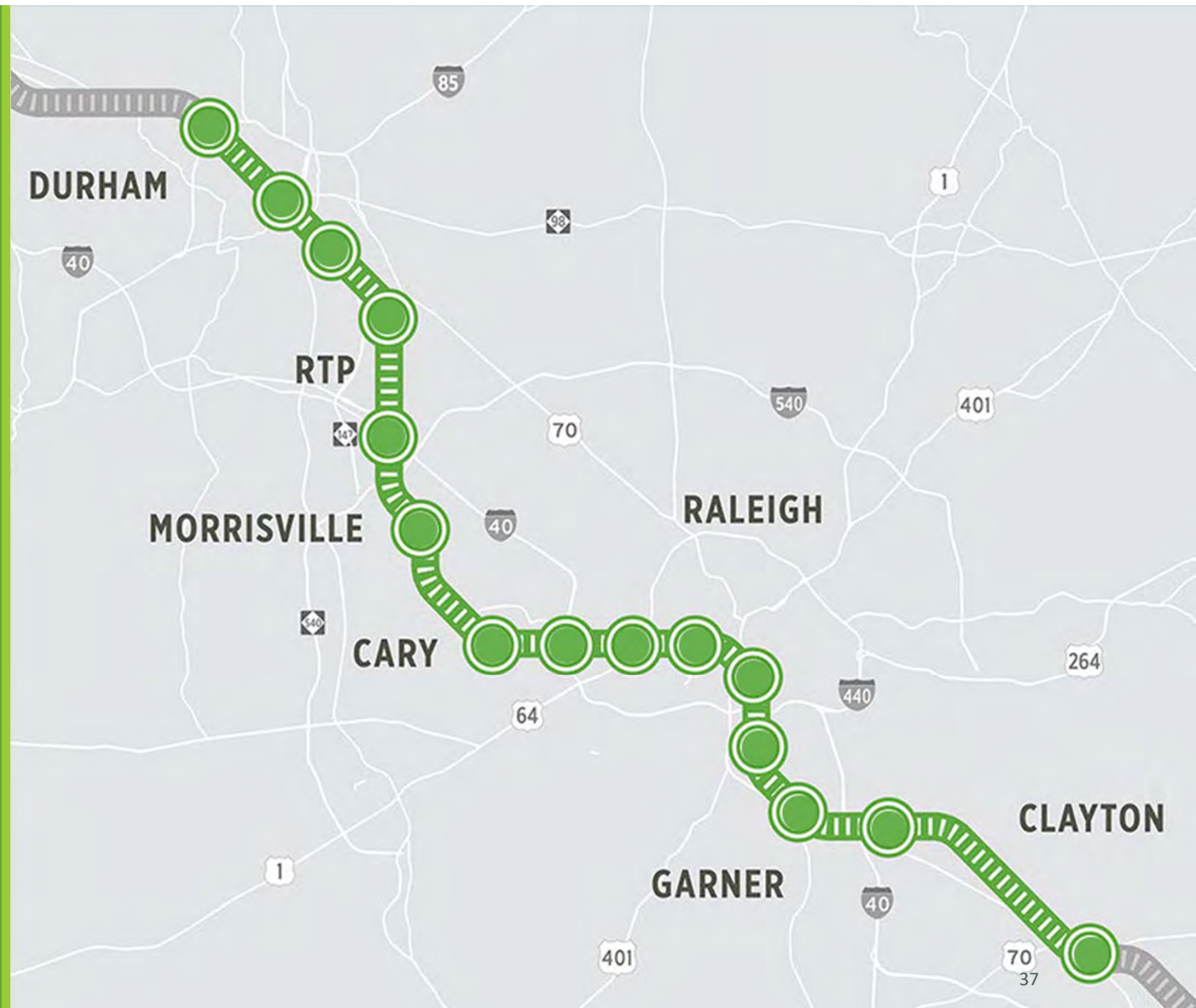
Round III: Education & Feedback

Listening and
engagement sessions
focused on proposed
commuter rail stations

Report back

Deliver and educate on new
info

Topic rooms



QUESTIONS?

Next up: Railroad Coordination

Railroad Coordination

TOM HENRY, INTERIM GENERAL COUNSEL

Agreements | *Understanding Federal Expectations*

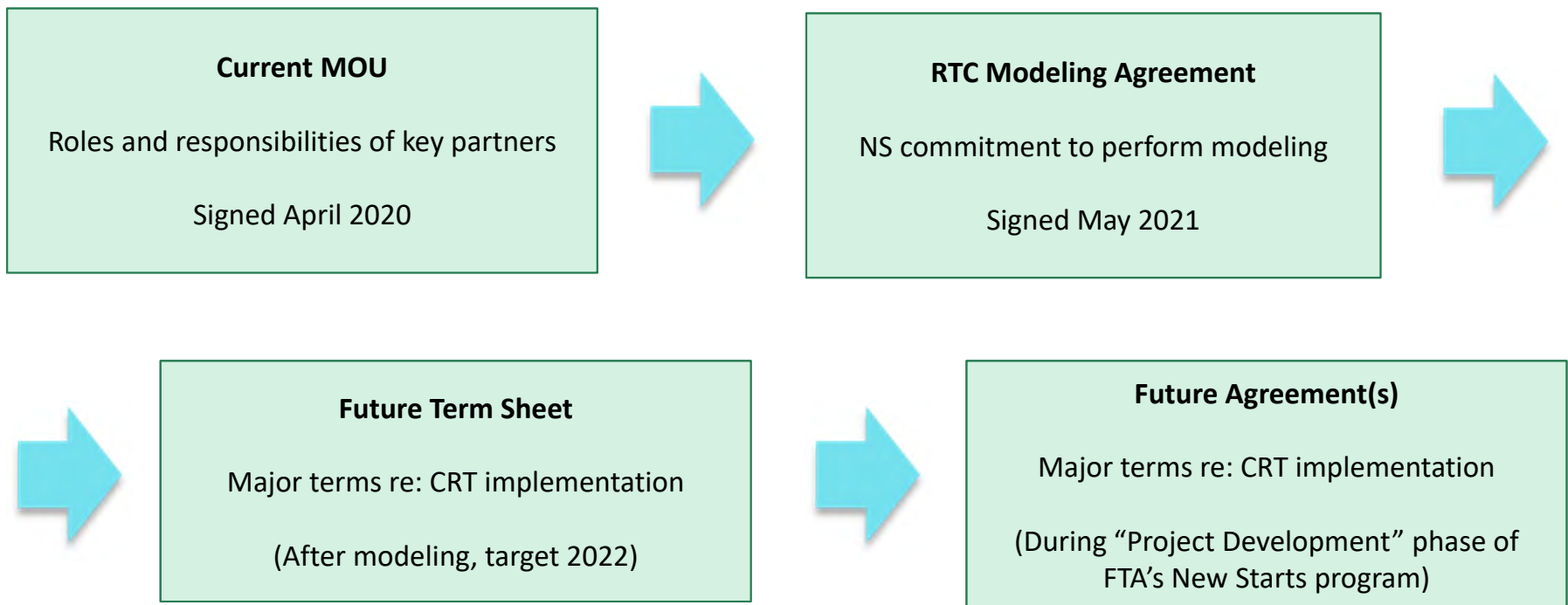
FTA Final Interim Policy Guidance

- During project development, sponsor must identify all third-party agreements “**with a plan and schedule for completion.**”

FTA Project and Construction Management Guidelines (Section 4.6.3)

- “The grantee must begin negotiation early in the project’s development process to assure successful resolution of any conflicts. **It is important that early on that an ‘understandings paper’ or some kind of outline of an agreement is created to set the basis for the project.** This may include an operating plan, frequency of service, improvements to be constructed, who will pay, who will construct, and what is the permit/approval process.”

Agreements | *Taking an Incremental Approach*



Agreements | *Surveying the Agreement Landscape*

GENERAL	PLANNING / DESIGN / PROPERTY	CONSTRUCTION	OPERATIONS
Liability and indemnification	Pre-construction fieldwork	Procurement	Third-party operator
Insurance	Infrastructure design requirements	Safety, flagging	Definition of commuter service plan
Public, govt relations	Rolling stock requirements	Contractor oversight	Dispatching
Reporting responsibilities	Design review and approval process	Construction schedule	Operating standards, safety plans, security plans, etc.
Taxpaying responsibilities	Permitting and regulatory	Changes to approved plans	Periodic review of service plan
Inter-party reimbursements	Utilities		Process for making changes to service plan
Recordkeeping, budgeting, audits, oversight	Encroachments		Special service, temporary suspension, unique changes to service plan
Environmental issues, response to hazmat release	Agreements for control, access to rail infrastructure property		Responsibilities re: system maintenance, including tracks, signals, etc.
Term of agreement, renewals	Agreements for stations, parking, other uses of NCRR ROW		Responsibilities re: system inspections, detecting problems, initiating repairs
Default, cure, remedies			Responsibilities re: inspection and maintenance of rolling stock
Dispute resolution			On-time standards for all trains; procedures for monitoring on-time performance; corrective actions
			Qualifications, training, other requirements for CRT personnel
			Labor, collective bargaining
			Disabled trains, wreck clearing, emergency response

QUESTIONS?

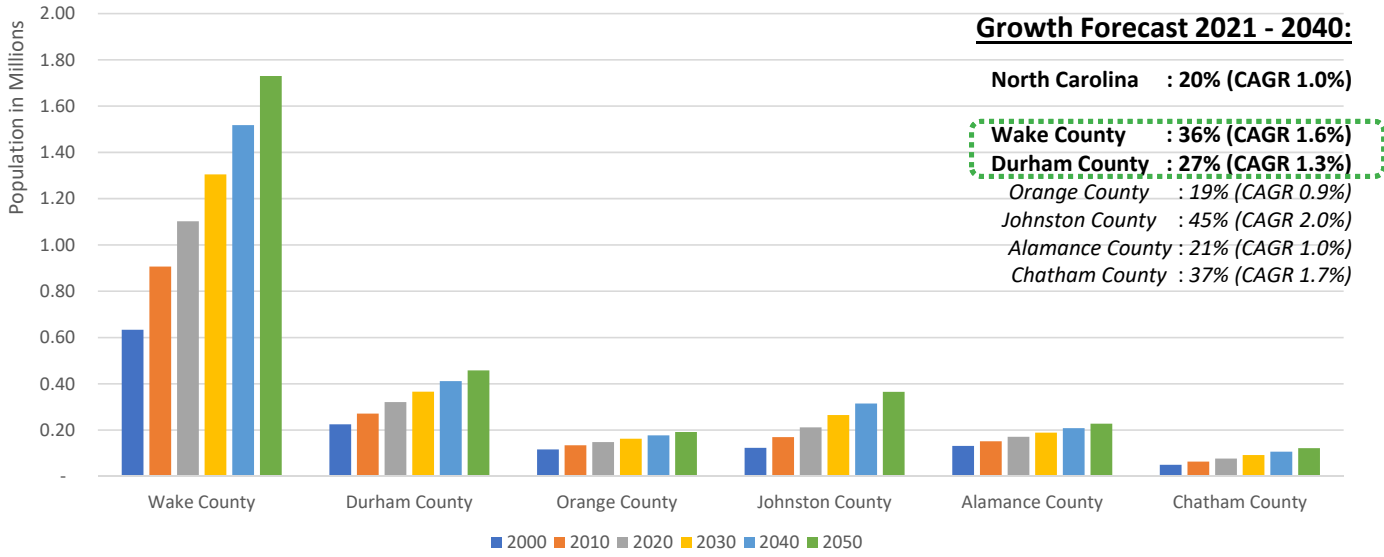
Next up: Cost-Share Analysis

Cost-Share Analysis

SAUNDRA FREEMAN, CHIEF FINANCIAL OFFICER

STEVEN SCHLOSSBERG, FINANCE AND BUDGET MANAGER

Commuter Rail Transit (CRT) Population Growth



Source: North Carolina OSBM, Standard Population Estimates, Vintage 2019 and Population Projections, Vintage 2020

Commuter Rail Transit (CRT) Key Assumptions

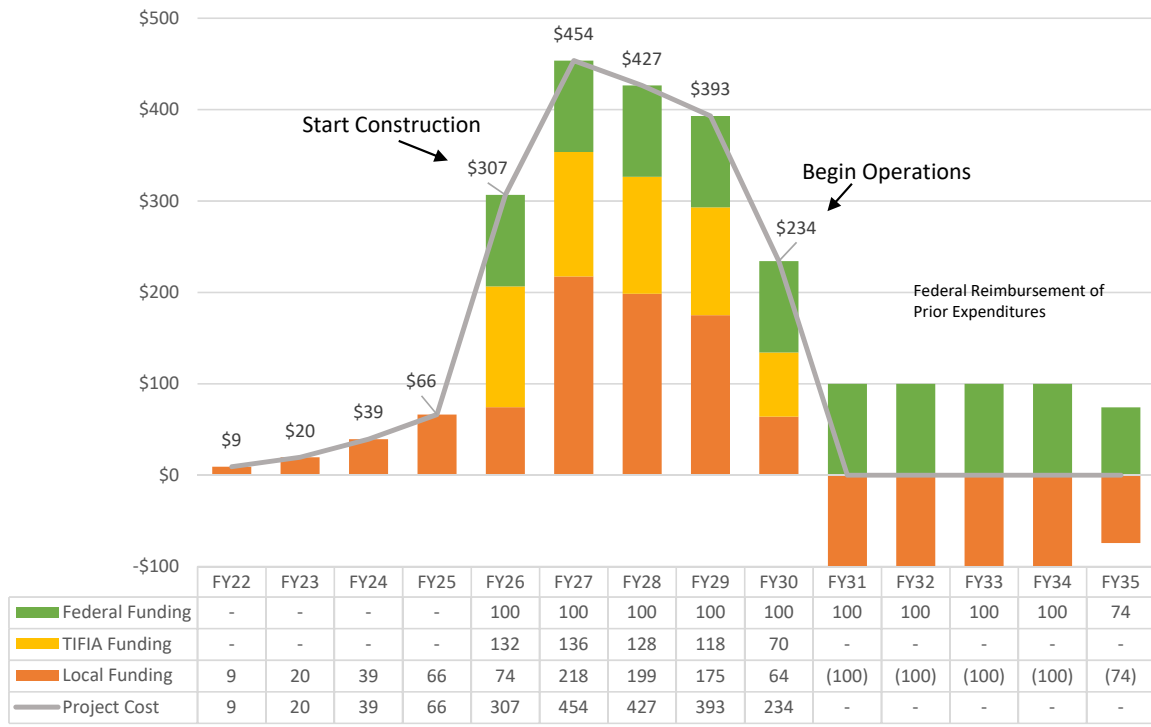
Capital Project Assumptions

- Total Project Cost consistent with Phase I estimate
 - Construction anticipated to start FY26 and complete FY30
 - Approximately 45% of expenditures would occur in FY27 and FY28
 - 50% federally funded with FTA Full Funding Grant Agreement
 - 30% funded by a federally-backed (Transportation Infrastructure Finance and Innovation Act - TIFIA) loan which would be repaid over 35 years with Wake and Durham transit funds
 - 20% funded by cash and conventional debt from Wake and Durham Transit Plans

Operating and Maintenance Assumptions

- Operations begins in 2030
 - First year costs are projected to be \$41M and grow at 2.5% per year
 - Funding will consist of a mix of local funds, farebox revenues and federal apportionment
 - Debt service expenditures begin during the *second year* (FY31)
 - Service charges continue for 35 years

CRT Capital Funding – Cost Curve



¹ Local Funding includes cash and borrowing based on liquidity needs of each Transit Plan

² All debt would be issued by GoTriangle

Cost Share Analysis – Capital Funding

Inception through FY35

Federal Share	\$974	\$974	\$974	\$974	\$974	\$974	\$974	\$974	\$974	\$974	\$974	\$974	\$974	\$974
	<u>67%</u>	<u>68%</u>	<u>69%</u>	<u>70%</u>	<u>71%</u>	<u>72%</u>	<u>73%</u>	<u>74%</u>	<u>75%</u>	<u>76%</u>	<u>77%</u>	<u>78%</u>	<u>79%</u>	<u>80%</u>
Wake Local/Debt Funding	650	663	673	683	692	702	712	722	731	741	751	761	770	780
	<u>33%</u>	<u>32%</u>	<u>31%</u>	<u>30%</u>	<u>29%</u>	<u>28%</u>	<u>27%</u>	<u>26%</u>	<u>25%</u>	<u>24%</u>	<u>23%</u>	<u>22%</u>	<u>21%</u>	<u>20%</u>
Durham Local/Debt Funding	324	312	302	293	283	273	263	254	244	234	224	215	205	195

Included in current Wake Transit Plan – 67%
 Included in current Durham Transit Plan – 20%

Preliminary Cost Share Analysis

Wake Transit Plan	%	%	Durham Transit Plan
Currently adopted within Transit Plan.	67%	33%	Requires prioritization of current and future available funding
Requires adjustments to the financial policy and possible prioritization of current and future available funding	80%	20%	<p>Currently adopted within Transit Plan.</p> <p>Able to achieve current adopted plan and commits future available funding (FY17*)</p>

*New Durham Transit Plan is under development

Cost-Share Next Steps

Cost Share Discussion Range

- Wake Transit – 67% - 80%
- Durham Transit – 20% - 33%

Potential Options to Fully Fund Project – have been reviewed with staff

- Wake Transit could carry more costs in the early years of the project, to be offset by Durham Transit over time
- Operating cost split could be different from capital cost split
- FFGA reimbursement allocation could be different from capital cost split

Financial Needs: Plan consistency

Revisit Financial Policy and Guidelines Restrictions

Continue working with staff to review alternate options

QUESTIONS?

Next up: Wrap-Up

Wrap Up: Next Steps

KATHARINE EGGLESTON, CHIEF DEVELOPMENT OFFICER

Key Focus Areas

- Railroad Coordination
- Local Engagement
- Assess Feasibility in Key Areas
- Evaluate Decision-Making Metrics
- Monitor Federal Funding Eligibility
- Facilitate Cost-Sharing Discussions
- Build Capacity for Implementation

