



# Charlotte City Council Transportation, Planning, and Development Committee

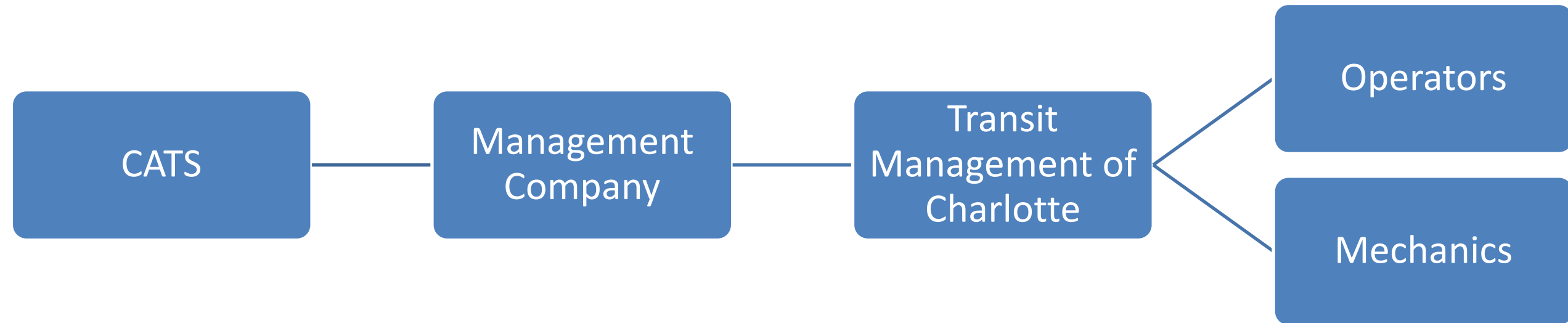
October 3, 2022







# CATS Bus Operations Organizational Structure





# National - Operator Shortages

- **TriMet: Portland, Oregon**

- “Starting January 10, 2022, 20 of our 84 bus lines will run less frequently on weekdays due to a shortage of bus operators and other workers” Source: [TriMet News Release \(January 2022\)](#)
- “Starting Sept. 18, 2022, ten bus lines will have service reduced, including two that will have service canceled due to a shortage of bus operators.” “Temporarily reducing service to match our staffing levels means that buses will run more true to schedule and riders will encounter far fewer canceled buses.” Source: [TriMet Service Alert \(July 2022\)](#)

- **MARTA: Atlanta, Georgia**

- “Ninety-six of MARTA’s 113 routes will run less frequently – they’ll operate on a Saturday schedule, even on weekdays. The remaining 17 routes will maintain regular weekday schedules.” Source: [The Atlanta Journal-Constitution \(December 2021\)](#)

- **CapMetro: Austin, Texas**

- Service reductions adopted September 2021 due to labor shortages will remain in place through August 2022. Source: [KUT 90.5 Austin NPR](#)



# Temporary Service Modifications

- In response to local operator shortages, CATS implemented a temporary adjustment to 20% of local and express routes as well as modifications to light rail service to improve service reliability on August 13<sup>th</sup> (rail) and August 15<sup>th</sup> (bus).
- Adjusted schedules provided transit users a consistent and reliable schedule to plan their travel.
- As operator availability improves, service will be added back based upon trip level ridership analysis.
- On Monday, August 15 out of 2,998 bus trips only 44 were missed.
- Compare that to past Mondays, which ranged anywhere from 300-500 missed trips.



# Temporary Service Modifications

		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Aug. 8 – 11	Missed Trips	480	127	74	199	495	790	199
Average since service change Aug 15 - Sept 11	Missed Trips	11	1	1	2	1	86	11

- Additional improvements to the CATS-Pass app include:
  - In addition to bus route real time tracking, CityLYNX Gold Line and LYNX Blue Line can be viewed in the app
  - Fare Capping Pilot
  - Identification of Missed Trips

# Charlotte Area Transit System

## Fast Facts

- Largest transit system between Washington, DC and Atlanta Georgia
- Funded by Mecklenburg County ½ cent sales tax (1998)
- City of Charlotte Department
- Service Area Population: 1,302,619
- Service Area square miles: 675
- Vehicle Fleet
  - 304 buses
  - 83 Paratransit
  - 87 Vanpool
  - 42 Siemens S70 Light Rail Vehicles
  - 6 Hybrid Siemens Streetcar Vehicles
  - 22 miles of Rail
  - 69 Bus Routes

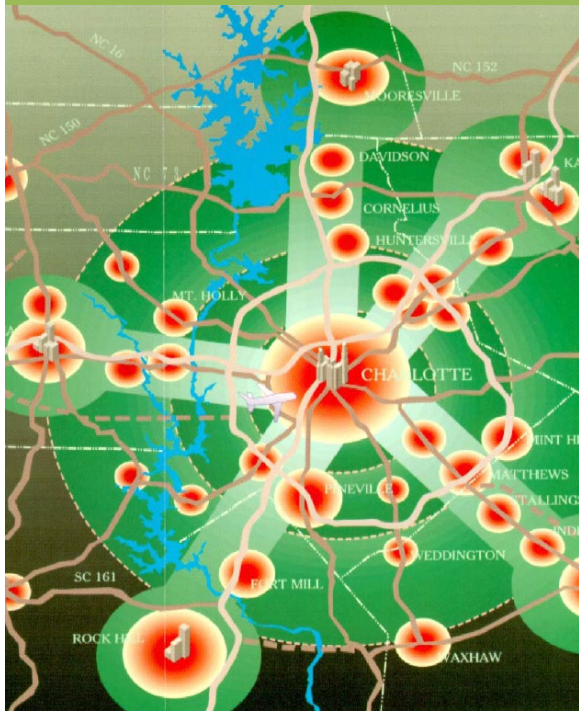




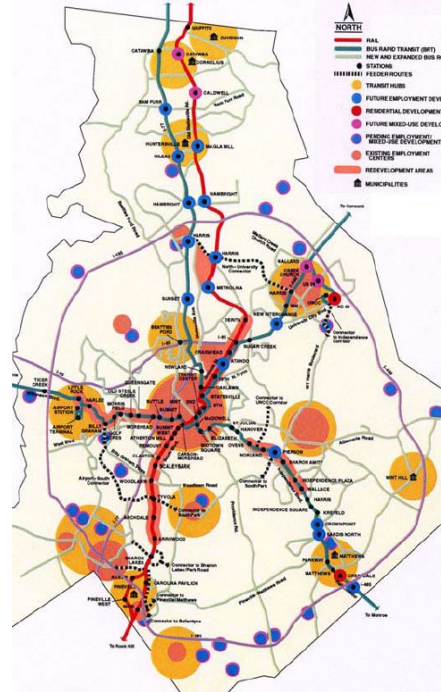


# It Started with a Vision

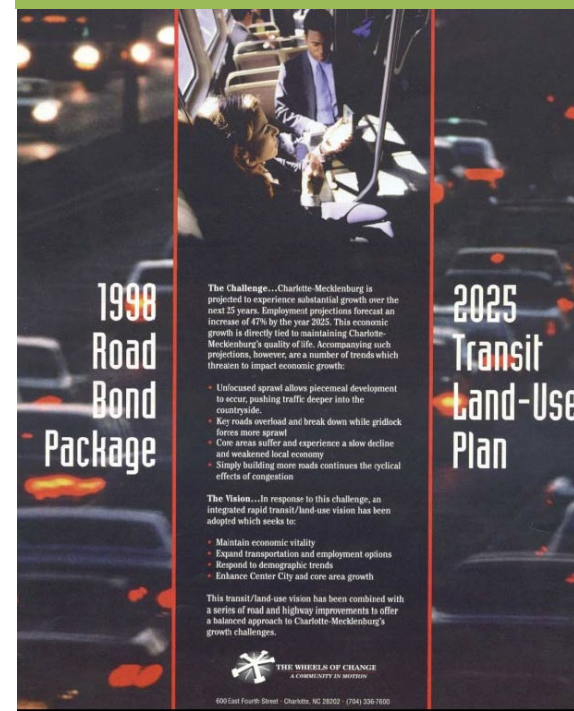
## Developed the Vision



## Refined the Vision

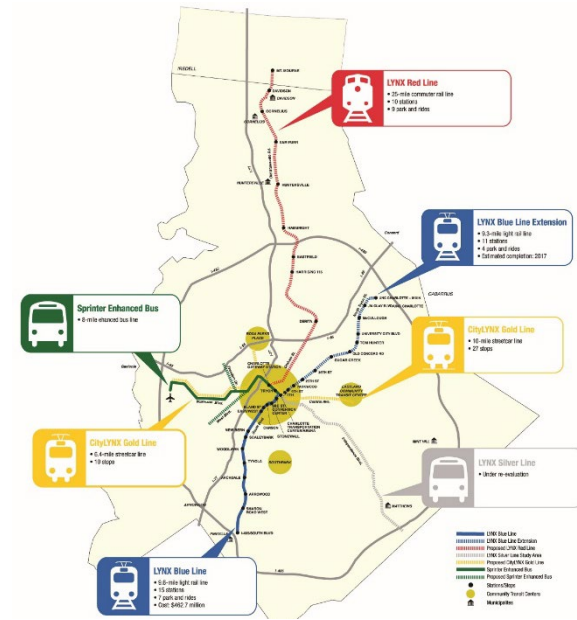


## Voters Approve Sales Tax



## Corridor System Plan

## Adopted







# Today Transit is Integrated into City's Land Use, Transportation, and Sustainability Policies

**CHARLOTTE FUTURE** | 2040 COMPREHENSIVE PLAN

OUR CITY. OUR PLAN. OUR FUTURE.

PLAN POLICY  
(ADOPTED JUNE 21, 2021)  
Published July 20, 2021

CITY OF CHARLOTTE

Icons: AUTHENTIC, EQUITABLE, RESILIENT, INTEGRATED

**CHARLOTTE STRATEGIC MOBILITY PLAN**

Our Blueprint for Safe and Equitable Mobility

Adopted June 27, 2022

CITY OF CHARLOTTE

**CITY OF CHARLOTTE**

**UDO**  
UNIFIED DEVELOPMENT ORDINANCE

ADOPTED BY THE CHARLOTTE CITY COUNCIL ON AUGUST 22, 2022  
EFFECTIVE DATE: JUNE 01, 2023

GOAL 1: 10-MINUTE NEIGHBORHOODS	GOAL 2: NEIGHBORHOOD DIVERSITY AND INCLUSION	GOAL 3: HOUSING ACCESS FOR ALL	GOAL 4: TRANSIT- AND TRAIL-ORIENTED DEVELOPMENT (21-OD)	GOAL 5: SAFE AND EQUITABLE MOBILITY
All Charlotte households should have access to essential amenities, goods, and services within a comfortable and tree-shaded 10-minute walk, bike, or transit trip by 2040. Not all neighborhoods are expected to include every essential amenity, good, or service, but every resident should have access within a 1/2 mile walk or a 2-mile bike or transit ride.	Charlotte will strive for all neighborhoods to have a diversity of housing options by increasing the presence of middle density housing (e.g. duplexes, triplexes, fourplexes, townhomes, accessory dwelling units, and other small lot housing types) and ensuring land use regulations allow for flexibility in creation of housing within neighborhoods.	Charlotte will ensure opportunities for residents of all incomes to access affordable housing through the preservation of naturally occurring affordable and increasing the number of affordable and workforce housing and construction.	Charlotte will promote moderate to high-intensity, compact, mixed-use urban development along high-performance transit lines and near separated shared-use paths or trails.	Charlotte will provide safe and equitable mobility options for all travelers regardless of age, income, ability, race, where they live, or how they choose to travel. An integrated system of transit and tree-shaded bikeways, sidewalks, shared-use paths, and streets will support a sustainable, connected, prosperous, and innovative network that connects all Charlotteans to each other, jobs, housing, amenities, goods, services, and the region.

## Equitable | 50-50 Mode Share

### 2040 Aspiration

*As a community, half of our commute trips will be made by means other than a single-occupancy vehicle, through walking, biking, and taking transit.*



**SEAP**  
STRATEGIC ENERGY ACTION PLAN  
CITY OF CHARLOTTE



# Building Upon The Vision

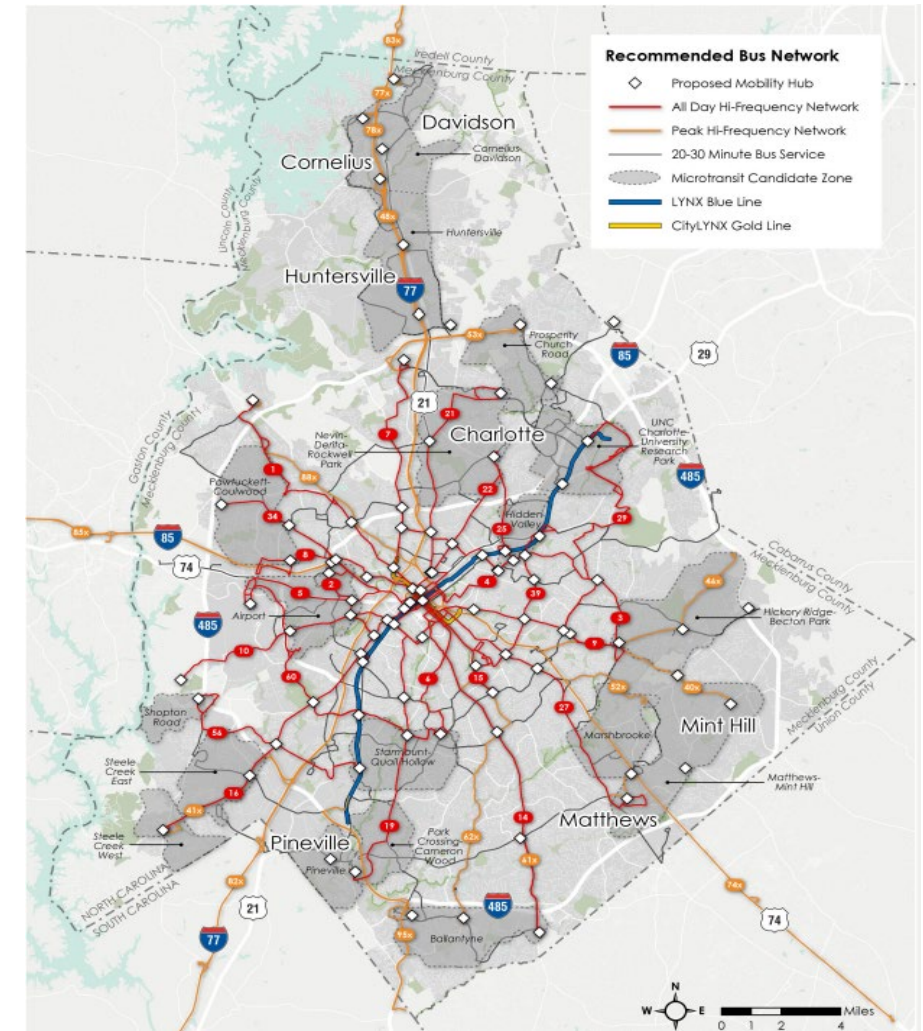


## CONNECT Beyond

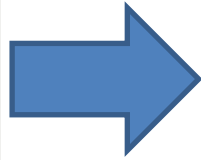
A Regional Mobility Initiative



## 2030 Transit System Plan



## Envision My Ride



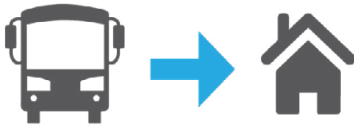


## Building a Better Bus Network

Envision My Ride established the foundation:



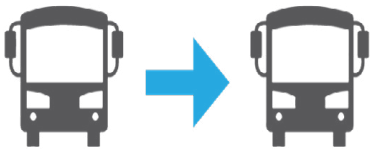
Create more frequent bus service



Create more direct bus service

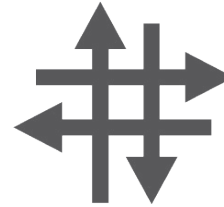


Develop more crosstown connections



Greater connectivity between different routes

Bus Priority Study recommended capital improvements that:



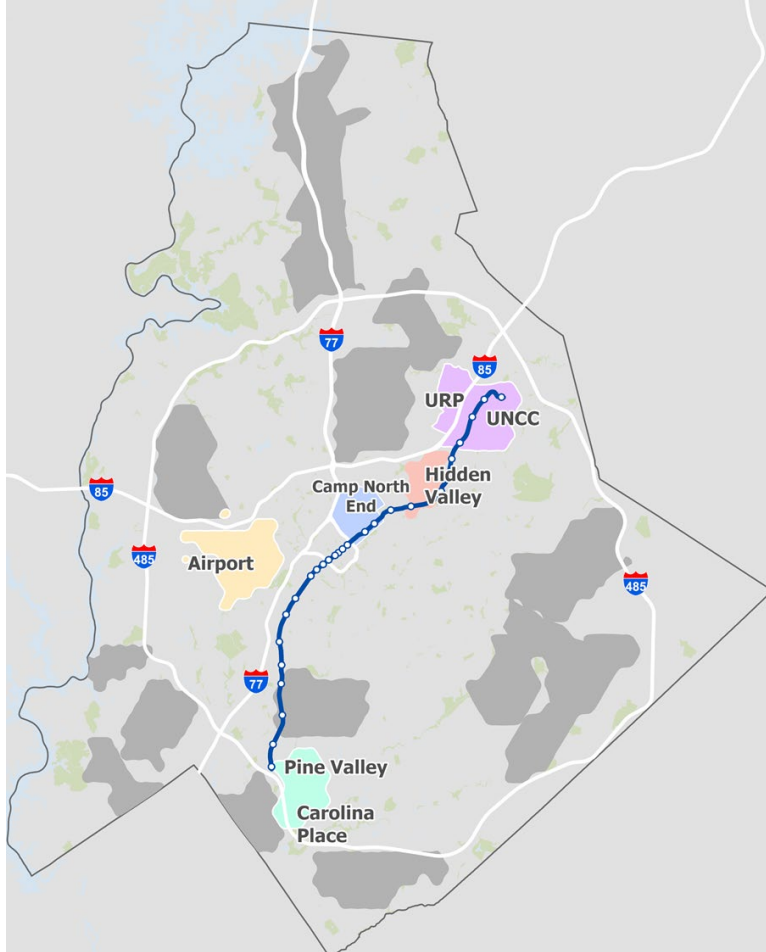
Makes bus trips faster, more reliable, and more enjoyable.



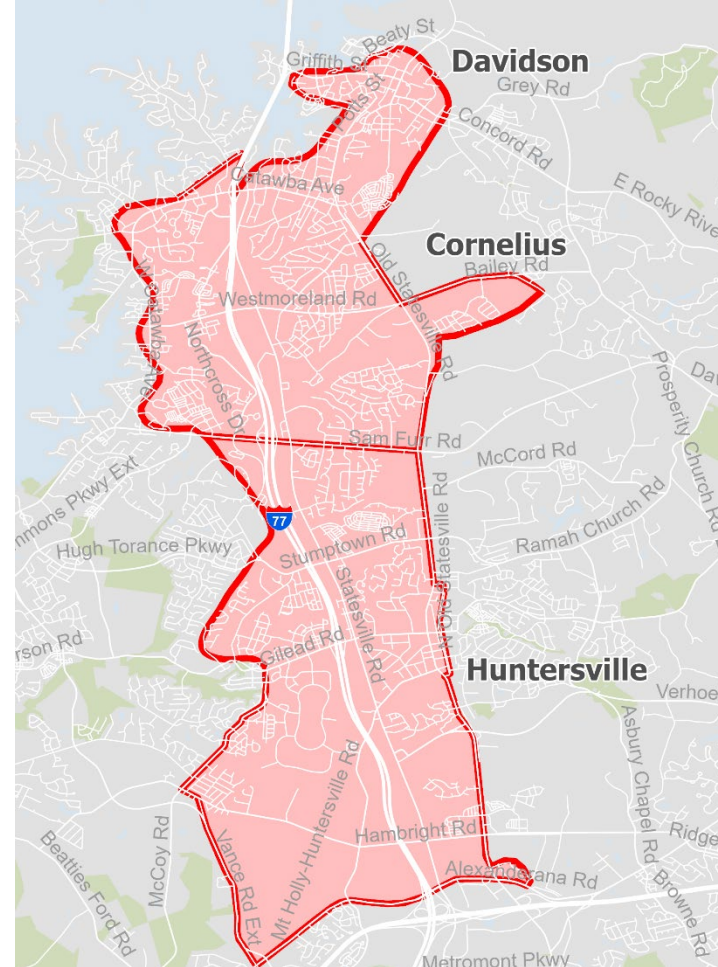
Improves connections to other transit lines, bikeshare, park & rides, and other mobility options



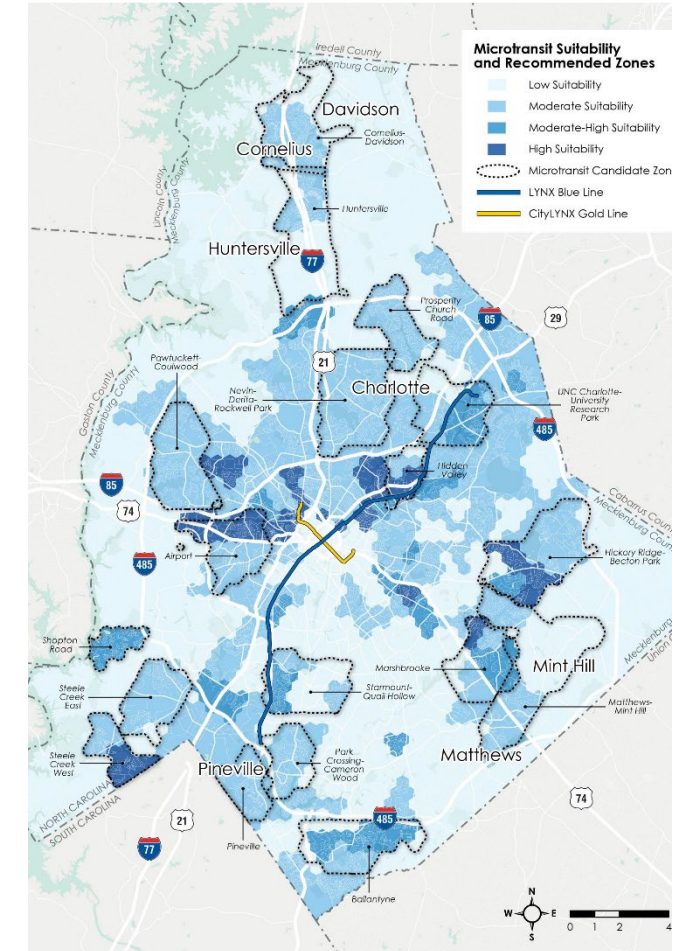
Improves the bus stop system-wide. Includes mobility hubs and greater amenity types



**PHASE ONE:**  
First/Last Mile Pilot



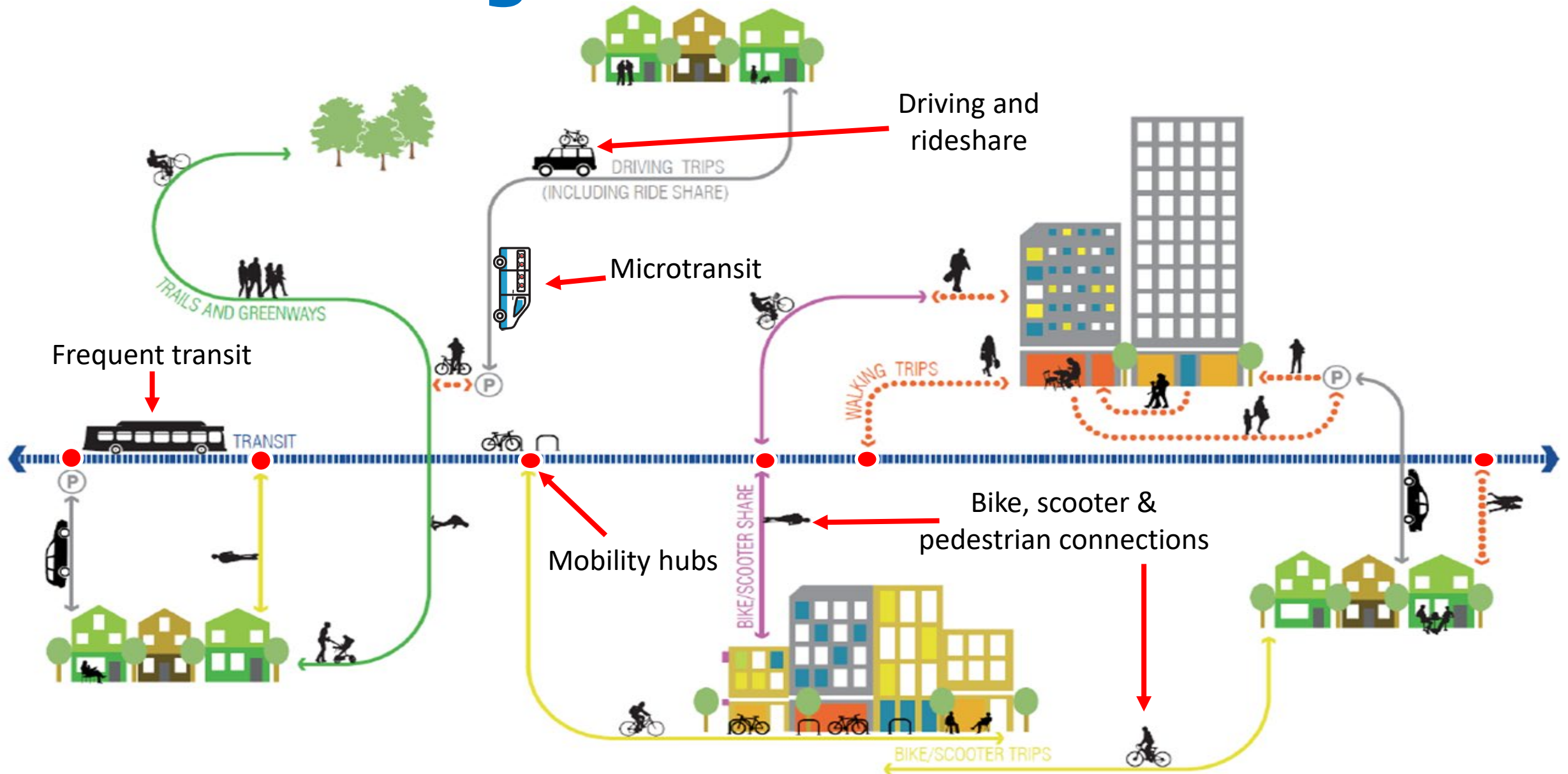
**PHASE Two:**  
On Demand Pilot



**PHASE THREE:**  
Implementation Strategy



# Building a Connected Network











# Charlotte Transportation Center

- **Continuity in Service via a Temporary Facility**
- **Elevate the Transit Rider Experience**
  - ✓ Comfortable, Climate Controlled Space
- **Safety and Security is Top Priority**
  - ✓ Controlled access to transit space
  - ✓ Minimize Pedestrian and Vehicle Conflicts
- **Easy and Convenient Transit Connections**
  - ✓ Central Mobility Hub for Bus, Light Rail, Streetcar
- **Sustainable Design**
  - ✓ LEED Certified and/or Envision Certification
  - ✓ Battery Electric Bus Hub
- **Integrated with Mixed Use Development**
  - ✓ Create an Active, Vibrant Place



A photograph of a public outreach event. In the foreground, a person with dark curly hair is seen from the back, wearing a blue t-shirt with the Charlotte Area Transit System's mission statement. They are standing at a blue table with informational brochures. In the background, a woman with dark hair and a red top is looking towards the camera. A white transit bus is partially visible behind them, with the text 'LOTTE AREA TRANSIT SYSTEM' and 'TTS' on its side.

## Public Outreach

- October 4-6: CTC Pop Ups
- October 11-12: Virtual Public Meetings
- October 13: Transit Services Advisory Committee
- October 13: CMGC Public Meeting
- October 18-20: CTC Pop Ups with Design Options

### MISSION STATEMENT

Charlotte Area Transit System provides essential mobility solutions that connect communities, opportunity, places, and each other.





# City Council Next Steps

## September

- 9/26: Presentation to Council

## October- December

- 10/6-10/26: Public Outreach and Stakeholder Engagement
- 11/7: Convene with Transportation, Planning, and Development Committee
- 11/14: Report Back to City Council on Further Evaluation of Options; forthcoming Memorandum of Understanding
- 11/16 MTC Update





# Battery Electric Bus Pilot Program

- Launched our first battery electric bus (BEB) program with eTransEnergy, a subsidiary of Duke Energy, on Earth Day of this year.
- Program will allow CATS to collect data and assess vehicle performance while operating across the transit system.
- Supports our Strategic Energy Action Plan (SEAP) which strives to have city fleet and fueled by 100 percent zero-carbon sources by 2030, sets a community-wide goal for Charlotte to become a low carbon city by 2050.
- Program time is 18 months and includes 18 BEBs, ten charging stations; currently have 12 BEBs in service with remaining six anticipated by end of 2022.
- Initial deployment to Bus Routes in the Wilkinson Blvd, South Tryon St, and Monroe Rd. Today the vehicles operate in over 20 routes across the system



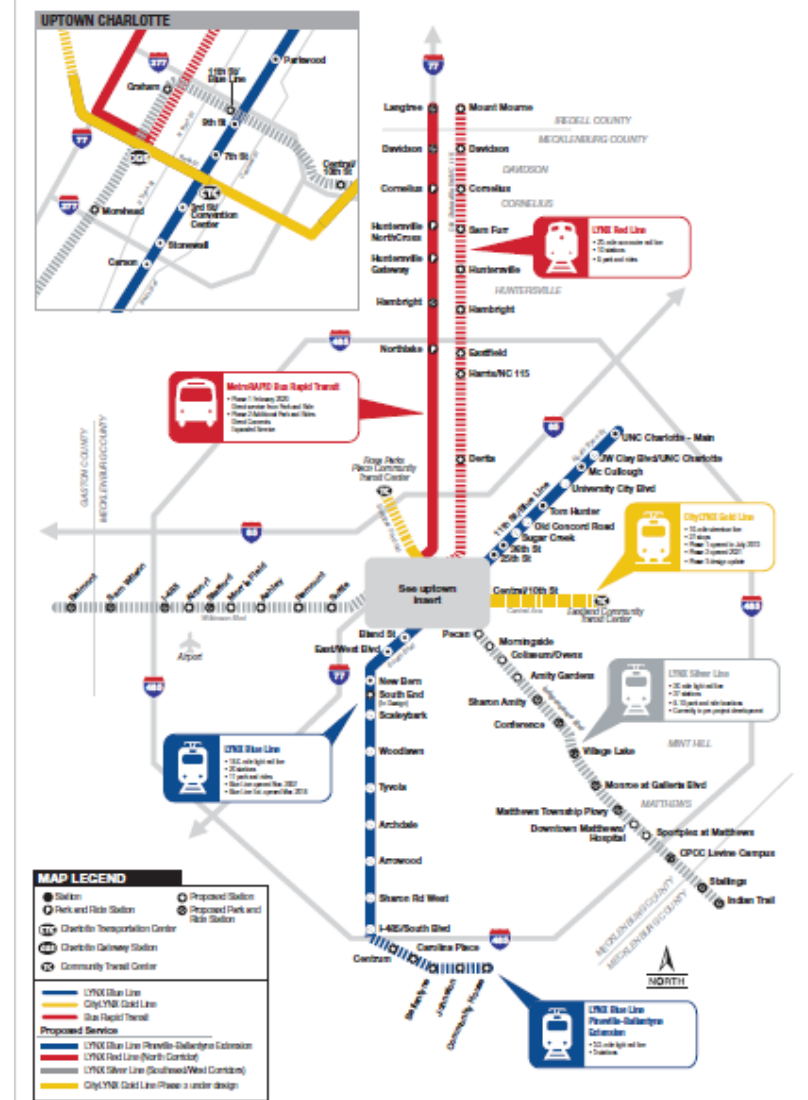




- Experienced successful implementation to date with various learnings across the board, seeing vehicles ranges of up to and above 150 miles to date and will continue to push the range limits on these vehicles.
- Selected STV as our partner to support us in the development of our first Zero Emission Vehicle Transition Plan, which will include revenue and non-revenue vehicles.
- Joined the Federal Transit Administration's Healthy Planet Challenge with other transit agencies also working toward a zero-emission transition.
- Currently budgeted for additional BEBs in FY23 budget, continuing transition to zero carbon sources for our fleet.

# 2030 Corridor System Plan

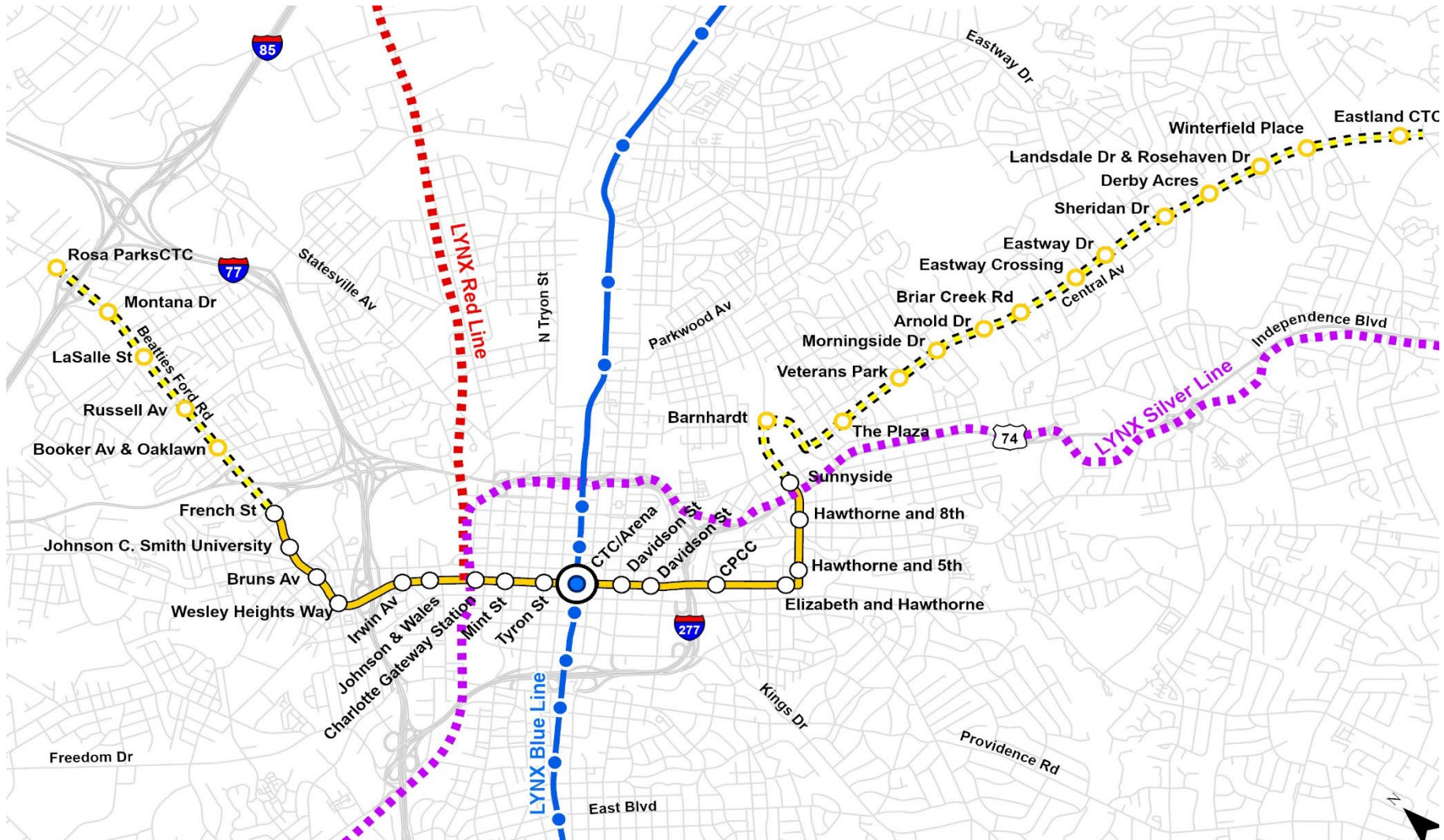
- LYNX Blue Line Light Rail
  - South Corridor 2007
  - Northeast Corridor 2018
  - Future Pineville/Ballantyne Extension
  - New South End Station
- CityLYNX Gold Line Streetcar
  - Phase 1 2015
  - Phase 2 2021
  - Phase 3 Design and environmental study
- LYNX Silver Line Light Rail (Southeast & West)
  - 29 miles across three counties
  - Currently in Design
  - Center City alignment evaluation
- North Corridor Strategy
  - MetroRapid I-77 BRT Phased Implementation
  - LYNX Red Line Commuter Rail—Continue NS Discussions







# Advancing the CityLYNX Gold Line





# Gold Line Improvements

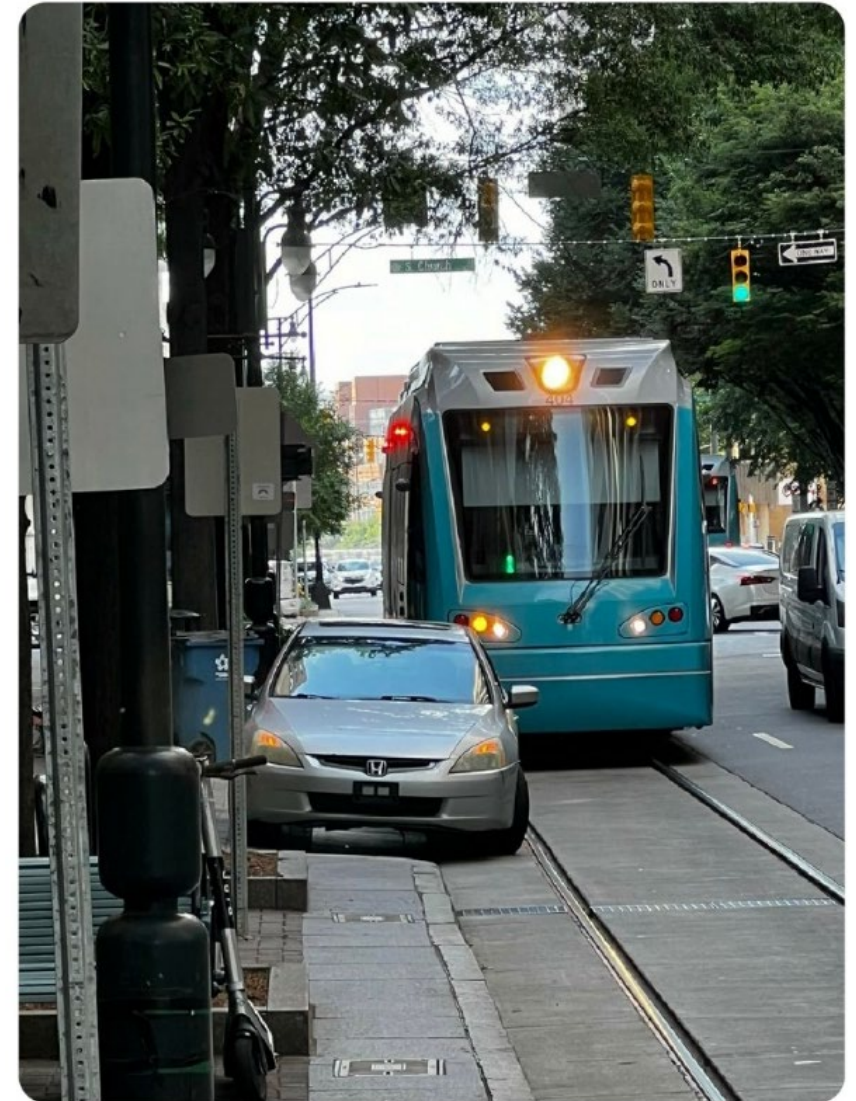
## Operational Challenges

- COVID related labor shortages
- Illegal parking conflicts
- Need for improved reliability



CATSRideTransit @CATSRideTransit · Jun 5

The CityLYNX Gold Line is currently operating on a 20-minute delay due to manpower constraints.







# Short-Term Improvements

## Supplemental Pavement Markings and Signage



- Added Signal Priority at:
  - French Street End of Line
  - Elizabeth and Hawthorne Intersection
  - Sunnyside End of Line
- Increased Enforcement
  - CATS Safety and Security Staff trained to write parking citations
  - Reported illegal parking ticketing and towing is continuing
  - CATS acquiring contract with towing vendors to target increased enforcement along the corridor
  - Targeted ticketing and towing will proceed once signage and pavement markings are complete this month



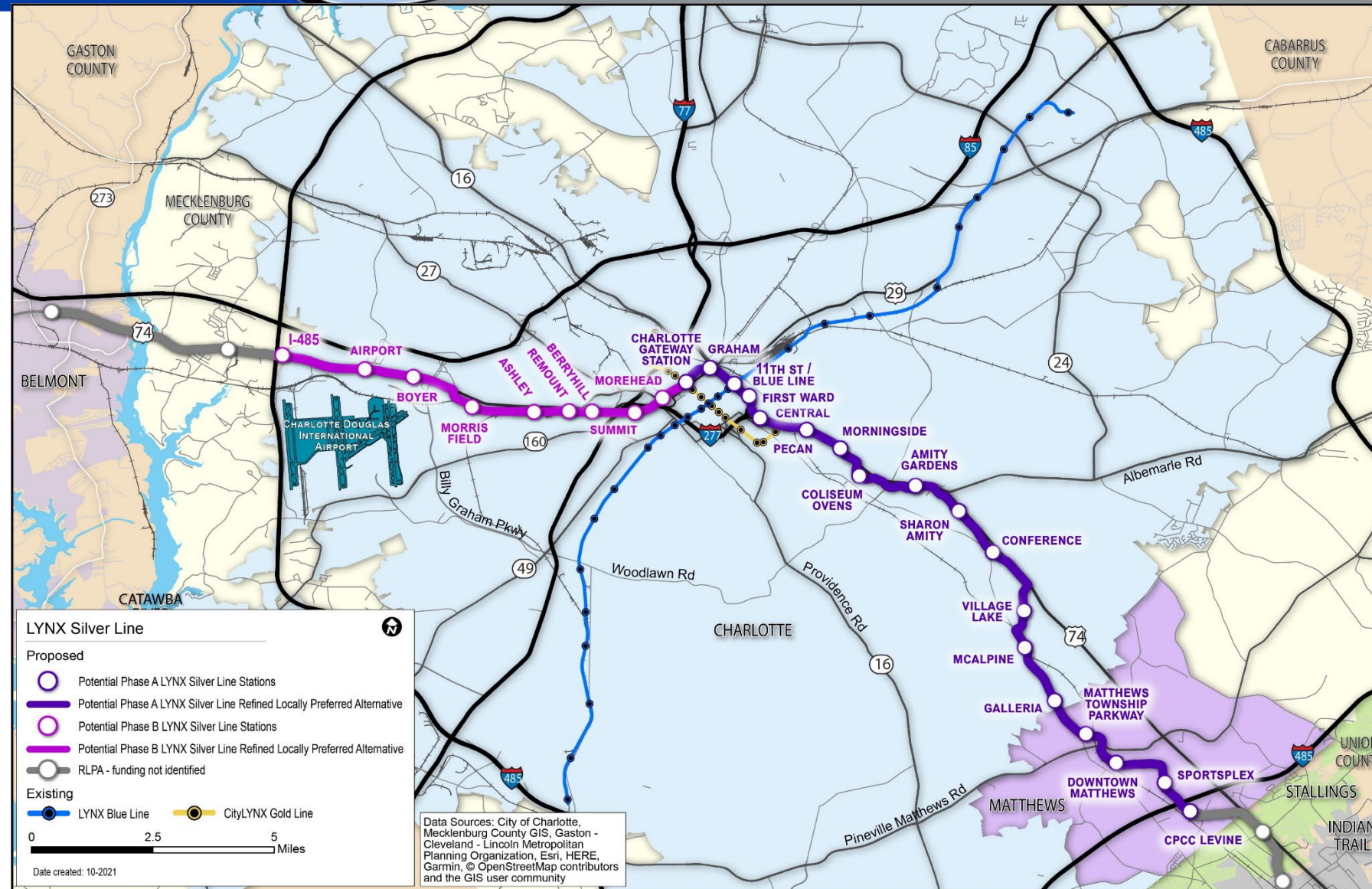
# CityLYNX Gold Line Phase 3

- Design and Environmental Study
- Evaluate Alternatives along Trade St., Central Ave., and Beatties Ford Rd.
  - Exclusive and Semi-Exclusive Streetcar Lanes
  - Signal Priority, Queue Jumpers
  - Length of streetcar line/terminus
  - Evaluate benefits to transit reliability and ridership, and estimate cost
  - Traffic analysis to determine impact on autos





# Advancing the LYNX Silver Line



29  
Miles



29  
Stations



Maintenance  
Facility



# Where Are We?

## CATS System Planning



### Planning / Pre-Project Development (2020-2024)

- ✓ LPA Refinement & TOD Opportunities
- ✓ Early Scoping
- ★ LPA Refinement
- ★ Technical Studies, Station Area Planning, and Rail-Trail Plans
- ★ Preliminary Design / Environmental Field Work
- Notice of Intent/Scoping
- Draft Environmental Impact Statement (Anticipated)



### Project Development

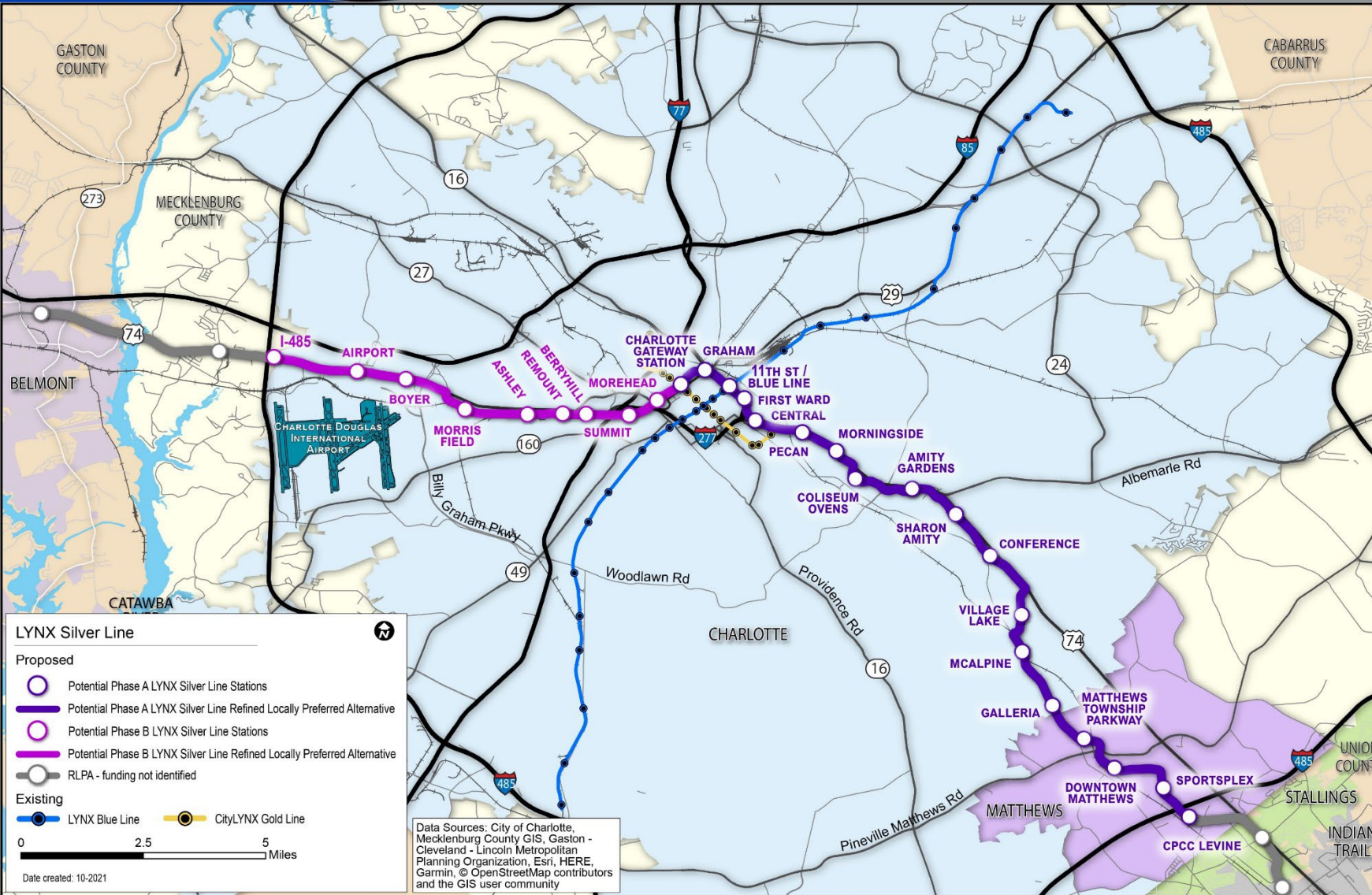
- Final Environmental Impact Statement & Record of Decision (Anticipated)
- 65% design plans
- Cost estimate

## Project Engineering & Construction

Public Engagement



# LYNX Silver Line Phasing Strategy

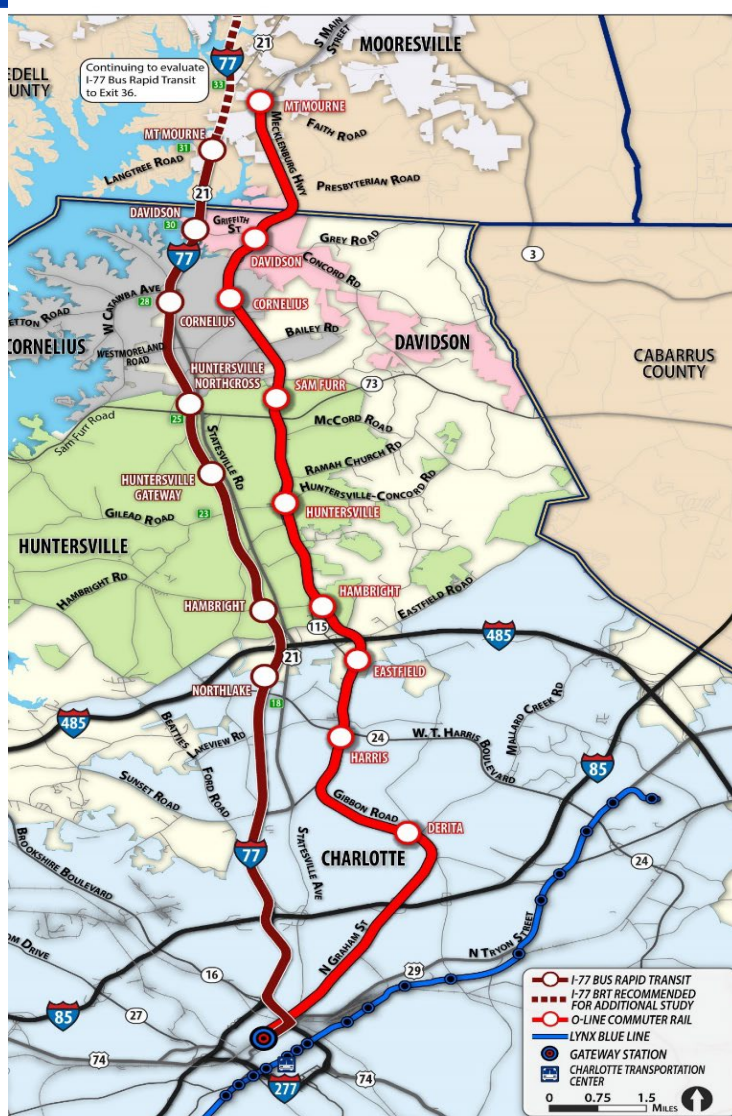


**Phase A: Southeast**  
Charlotte Gateway Station to  
CPCC Levine

**Phase B: West**  
Charlotte Gateway Station  
to I-485

**Other Phases**  
Regional Funding Required

# Advancing the North Corridor



## Short Term

- Express lane bus service improvements to include more frequent and direct service

## Medium Term

- Implementation of an I-77 Bus Rapid Transit service from Charlotte Gateway Station to Mooresville to include:
  - All day service including nights and weekends
  - Four new park and rides and two new express lane direct connects
  - Integrated BRT stations into mixed use developments that also incorporate emerging mobility technologies for first/last mile.
- North Corridor BRT Study completed in 2021

## Long Term

- Continued dialogue with Norfolk Southern on use of the “O” Line corridor for commuter rail
- Red Line Study to be initiated



# Charlotte Gateway Station

- City/NCDOT/private partnership for a Multimodal transit hub and destination center
- Connections to Amtrak, Greyhound, CATS bus service, LYNX Silver Line light rail and CityLYNX Gold Line streetcar
- Phase 1: Rail Infrastructure
  - Broke ground July 2018; completion scheduled for December 2022
- Phase 2: Private Development Partnership
  - Preliminary design early 2023
  - Developer Agreement late 2023

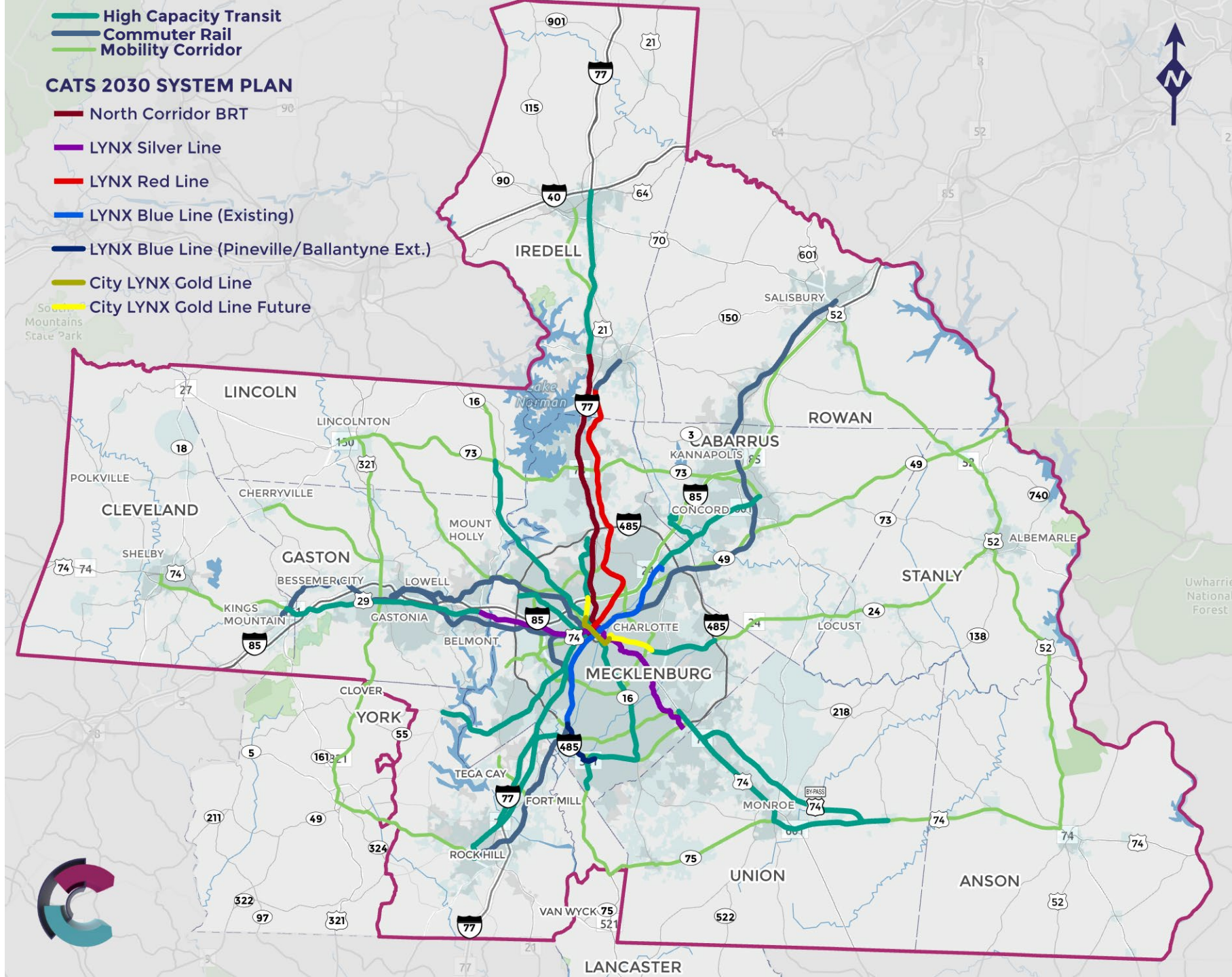






## A Regional Mobility Initiative

# 2030 Transit Plan serves as the foundation for Connect Beyond





The background image shows a public meeting or outreach event. On the left, a white CATS bus is partially visible with its door open. A woman with dark hair, wearing a red top and a dark jacket, is looking towards the right. In the foreground on the right, the back of a person wearing a blue t-shirt is visible. The t-shirt has the text 'MISSION STATEMENT' and a paragraph about the Charlotte Area Transit System. A blue table with informational brochures is in the lower foreground.

## Upcoming Agenda Items

- **LYNX Silver Line Interlining**
- **Charlotte Transportation Center**
- **Equitable Transit Oriented Development Study**
- **Charlotte Gateway Station**
- **Zero Emission Transition Plan**
- **Envision My Ride & Microtransit**

### **MISSION STATEMENT**

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# Questions?