

BLUEPRINT FOR

CHARLOTTE

MOBILITY INVESTMENT

CHARLOTTE
STRATEGIC
MOBILITY PLAN



Moving *Our* Vision Forward

**Innovative.
Bold.
Regional.**

Our growing region is centered on an economic engine that supports over 2.6 million people. As a region, our mobility challenges and solutions extend well beyond the borders of any one city, town, or county.

We simply cannot address our common mobility challenges alone.

Charlotte City Council has adopted a series of innovative and bold plans to guide Charlotte's growth and complement our region's mobility vision – CONNECT Beyond. The Charlotte Future 2040 Comprehensive Plan serves as the foundation for our holistic city vision, and our Strategic Mobility Plan defines a mobility future with expanded travel choices that are safe and equitable.

As Charlotte and our regional partners continue to plan our mobility future, we must work together to connect our common goals. Coordinated partnerships will ensure that our challenges are addressed with regional, multimodal, and timely strategies that create increased access to jobs, housing, and education – resulting in upward mobility for all.

Creating a mobility network isn't just about transportation and transit.

It's about...

...what's good for business.

...housing.

...upward mobility.

...sustainability.

...safe and equitable mobility.

REGIONAL PARTNERS



REGIONAL PLANS



CHARLOTTE PLANS



Charlotte Mobility Investment Blueprint

Connecting Our Jobs & Housing



The Charlotte Future 2040 Comprehensive Plan shapes the places where we live & work.

Shrinking the jobs and housing divide is key to unlocking upward economic mobility.

The ways we move need to be as varied as the places we create.

A Pedestrian

Our “places” and streets make walking and rolling part of every trip we make between jobs, daily needs, and neighborhoods.

B Vehicles

Our streets and roadways facilitate the efficient movement of people and goods in vehicles, while also providing space for all users.

C Bike & Micromobility

Our greenways and streets create a network for bikes, scooters, and emerging technologies for commuting, recreation, and short daily trips.

D High-Frequency Bus Transit

Our network of high-frequency bus corridors reaches into our neighborhoods making daily needs, services, and jobs accessible across the city.

E Rapid Transit

Our city and regional transit corridors provide efficient, affordable, high-capacity mobility to link our communities to regional job opportunities.

F Streetcar Transit

Our streetcar corridor ties our transit system to our most intense concentration of regional jobs, healthcare services, and educational institutions.

G Microtransit Zones

Our on-demand mobility service completes the first/last mile of trips to jobs, services, and housing beyond the current reach of fixed transit routes.

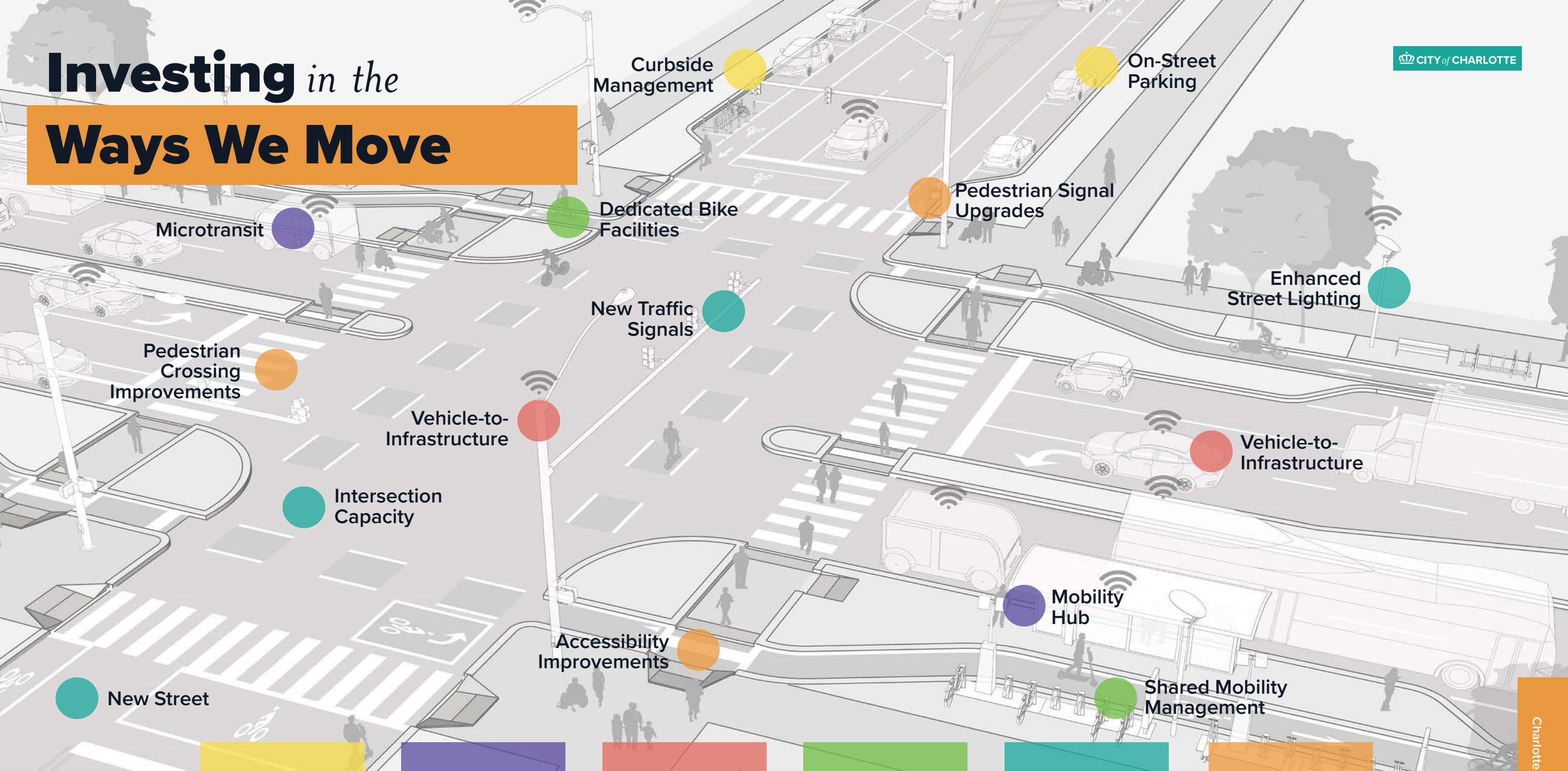
H Innovation

Our infrastructure is prepared for autonomous mobility and ongoing advancements in vehicle-to-infrastructure (V2I) communication.

I 10-Minute Neighborhoods

Our vision of “places” puts more jobs, housing, and services closer together, which reduces and shortens trips on our streets.

Investing in the Ways We Move



Curbside Management

Facilitating access to our curbside resource with the creation and management of on-street parking, space for delivery and mobility services, and EV charging infrastructure to support our energy goals.

Transit

Expanding our transit capacity and access with high-frequency bus corridors, mobility hubs for shared mobility options, and microtransit for first/last mile connectivity.

Innovation & Technology

Preparing for our autonomous mobility future with supportive investment in lanes, pavement markings, and vehicle-to-infrastructure (V2I) communication.

Bike & Micromobility

Building our micromobility network with dedicated bike facilities, greenways and paths, and active management of shared mobility such as scooters, bikes, and emerging technologies.

Roads

Managing our vehicular mobility system with targeted road and intersection expansion, new streets and traffic signals, enhanced street lighting, and fiber optic connectivity.

Pedestrian

Enhancing our pedestrian environment with new sidewalks and accessibility improvements, pedestrian crossings for safety and comfort, and signal upgrades for priority and visibility.

Going from Plans to Projects

Step 1 Mobility Priorities

COMPLETE

Established data-driven analysis, based on criteria derived from the goals of the Charlotte Future 2040 Comprehensive Plan and Strategic Mobility Plan, identifying areas where our mobility policies and priorities align for further project exploration and definition.

The results of this analysis are represented by the blue areas highlighted on the map.

Step 2 Mobility Opportunities

COMPLETE

Cataloged unfunded infrastructure opportunities based on current knowledge of real-world conditions.

Deliverable: Identified Mobility Opportunities Report

Step 3 Strategic Investment Areas

WE ARE HERE

ONGOING

Prepare a draft Strategic Investment Area Workbook addressing area-specific mobility needs with a menu of potential investments (big and small, short and long-term).

Step 4 Public Engagement

UPCOMING

Engage the public during the Charlotte Future 2040 Community Area Planning process on the draft Strategic Investment Areas to ensure community priorities are aligned with potential mobility investment.

Step 5 Project Feasibility

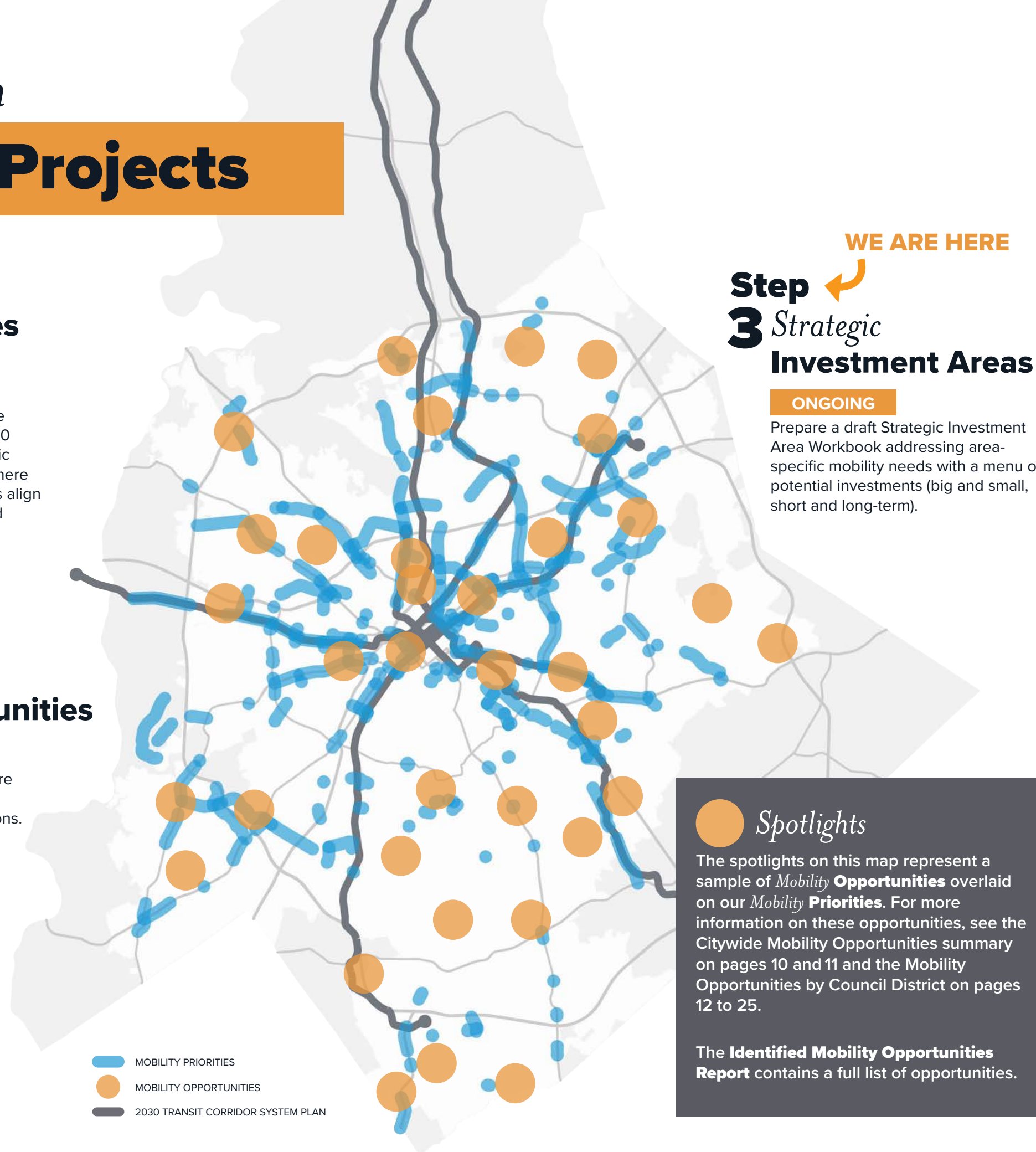
UPCOMING

Conduct initial project feasibility within the Strategic Investment Areas to establish a list of potential projects for prioritization based on benefit and need.

Step 6 Advanced Planning

UPCOMING

Advance the planning and design of prioritized projects to evaluate benefit to cost and select the most impactful projects for continued design, funding consideration, and implementation.



■ MOBILITY PRIORITIES
● MOBILITY OPPORTUNITIES
— 2030 TRANSIT CORRIDOR SYSTEM PLAN

Spotlights

The spotlights on this map represent a sample of *Mobility Opportunities* overlaid on our *Mobility Priorities*. For more information on these opportunities, see the Citywide Mobility Opportunities summary on pages 10 and 11 and the Mobility Opportunities by Council District on pages 12 to 25.

The **Identified Mobility Opportunities Report** contains a full list of opportunities.

Mobility Opportunities

Citywide

Roads & Complete Streets

200 miles of
Road Widening & Complete Streets

Existing streets in which additional vehicular capacity may be needed, as well as multimodal facilities

80 miles of
New Street Connections

Identified new streets that would enhance the overall street network by providing alternate routes and relieving pressure on existing streets

30 miles of
NCDOT Project Partnerships

Funded by NCDOT for construction but requires city betterments funding for enhanced complete street multimodal improvements

86
High Congestion Intersections

Identified intersections in which consistent traffic delay significantly impedes the flow of traffic

8
Bridge Replacements

Bridges that are functionally obsolete or where maintenance of the bridge is no longer the preferred strategy

160 miles of
Unlit Thoroughfares

Street segments where street lighting could be installed or upgraded to LED to increase visibility and improve safety in support of the city's Vision Zero strategy

70 miles of
Fiber Optic Connections

Locations where traffic signal and traffic camera communications can be modernized to support the efficient management of traffic

30
Traffic Signals

Locations identified for new traffic signals or modifications to existing signals, such as turn signals, to support efficient management of traffic

Transit

380 miles of
High-Frequency Bus Corridors

An identified and expanded network of bus corridors that will increase frequency and minimize travel time to jobs, services, and recreation

40 miles of
Rapid Transit

Identified expansions of the LYNX Rapid Transit System to support the 2030 Transit Corridor System Plan

61
Mobility Hubs

Defined centers for clustered transportation options and amenities, including walking, biking, transit, and micromobility

15
Microtransit Zones

Flexible service model with on-demand service in lower-density areas with high need

Pedestrian

260 miles of
Thoroughfares Without Sidewalks

Identified sidewalk gaps along thoroughfare streets

69
Pedestrian Crossings

Locations identified for pedestrian improvements, such as pedestrian hybrid beacons and refuge islands, to support safe street crossings

506
Pedestrian Signal Upgrades

Locations identified for technology solutions, such as Accessible Pedestrian Signal push buttons and Leading Pedestrian Intervals, to support safe street crossings

Micromobility

170 miles of
Mecklenburg County Greenways

Identified greenway segments for expansion to provide additional multimodal network for pedestrians, cyclists, and micromobility users

130 miles of
Bike Priority Network

Identified gaps in the Bike Priority Network

These infrastructure opportunities represent current knowledge of real-world conditions that will evolve and be refined over time. All of these opportunities are unfunded, and no advanced planning work has been completed to determine project viability or cost estimates. All mileages are approximate until alignments have been refined through advanced planning.

Mobility Opportunities

Roads & Complete Streets

- 4** miles of **New Street Connections**
- 4** **Bridge Replacements**
- 3** miles of **Road Widening & Complete Streets**
- 14** **High Congestion Intersections**
- 3** **Traffic Signals**
- 9** miles of **Fiber Optic Connections**
- 4** miles of **Unlit Thoroughfares**

Micromobility

- 25** miles of **Bike Priority Network**
- 11** miles of **Mecklenburg County Greenways**

Transit

- 105** miles of **High-Frequency Bus Corridors**
- 15** **Mobility Hubs**
- 2** **Microtransit Zones**
- 13** miles of **Rapid Transit**

Pedestrian

- 24** **Pedestrian Crossings**
- 102** **Pedestrian Signal Upgrades**
- 13** miles of **Thoroughfares Without Sidewalks**

Microtransit Zones

Implement the Hidden Valley Microtransit Zone to better serve the neighborhood with first/last mile on-demand connectivity to bus routes 11 and 39 and the LYNX Blue Line, while also connecting residents to amenities such as the Eastway Regional Recreation Center.

Pedestrian Signal Upgrades

Upgrade 102 signalized intersections with leading pedestrian intervals, blank-out signs, and/or accessible pedestrian signals, including at key intersections along North Graham and North Tryon Streets. Construction of sidewalk gaps may be paired with signal upgrades for enhanced pedestrian safety.

New Street Connections

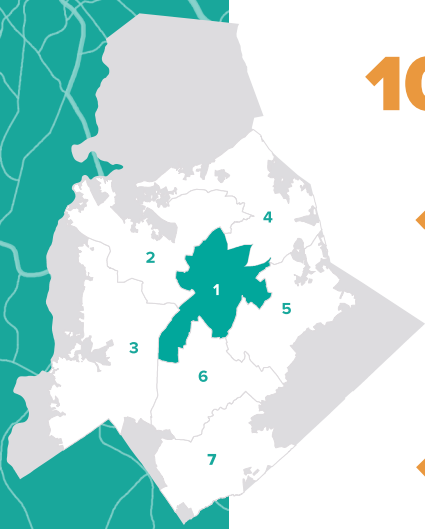
Extend Philemon Avenue from East Craighead Road to East 36th Street to restore access to North Davidson Street and support economic development along the LYNX Blue Line and Cross Charlotte Trail.

Bike Priority Network

Complete the Uptown CycleLink, a 7-mile network of bike facilities around Center City that connects a citywide network of over 40 miles of existing bikeways including the Blue Line Rail Trail, Cross Charlotte Trail, The Seam Trail, and Irwin Creek Greenway.

Rapid Transit

Construct LYNX Silver Line light rail and CityLYNX Gold Line Phase 3 of the streetcar to create important east/west connections, provide multimodal amenities, and incorporate equitable transit-oriented development planning along the corridors to ensure housing options, a mix of uses, and mobility improvements.



The spotlights on the map represent a sample of Mobility Opportunities. The Identified Mobility Opportunities Report contains a full list of opportunities. All mileages are approximate until alignments have been refined through advanced planning.

Mobility Opportunities

District 2

Roads & Complete Streets

- 2** miles of **NCDOT Project Partnerships**
- 3** **Traffic Signals**
- 11** miles of **New Street Connections**
- 11** miles of **Fiber Optic Connections**
- 1** **Bridge Replacement**
- 24** miles of **Unlit Thoroughfares**
- 37** miles of **Road Widening & Complete Streets**
- 7** **High Congestion Intersections**

Micromobility

- 25** miles of **Bike Priority Network**
- 30** miles of **Mecklenburg County Greenways**

Transit

- 81** miles of **High-Frequency Bus Corridors**
- 14** **Mobility Hubs**
- 2** **Microtransit Zones**
- 7** miles of **Rapid Transit**

Pedestrian

- 8** **Pedestrian Crossings**
- 71** **Pedestrian Signal Upgrades**
- 67** miles of **Thoroughfares Without Sidewalks**

Thoroughfares Without Sidewalk

Construct shared use paths along several key corridors, including Mt Holly-Huntersville Road, Bellhaven Boulevard, and Rozzelles Ferry Road, to provide dedicated facilities for pedestrians and cyclists, and to connect to a network of parks and greenways, such as Gum Branch Greenway, Coulwood Community Park, and Shuffletown Community Park.

Unlit Thoroughfares

Advance Vision Zero goals and improve safety along Statesville Avenue by installing streetlighting from Old Statesville Road to Lakeview Road.

Mecklenburg County Greenways

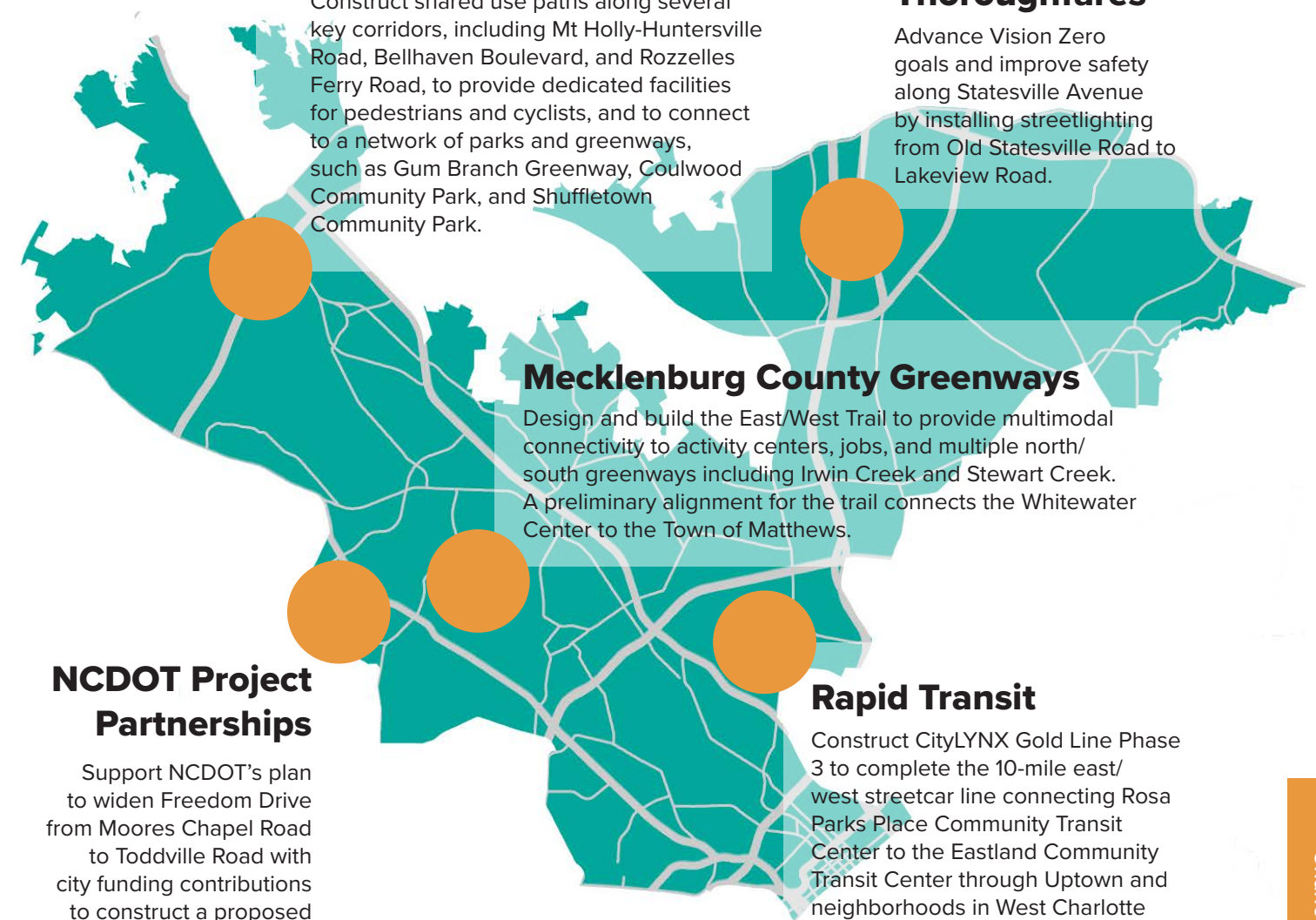
Design and build the East/West Trail to provide multimodal connectivity to activity centers, jobs, and multiple north/south greenways including Irwin Creek and Stewart Creek. A preliminary alignment for the trail connects the Whitewater Center to the Town of Matthews.

NCDOT Project Partnerships

Support NCDOT's plan to widen Freedom Drive from Moores Chapel Road to Toddville Road with city funding contributions to construct a proposed mobility hub and install fiber, pedestrian signal upgrades, sidewalks, and bike facilities to connect to the future Paw Creek greenway just south of the project.

Rapid Transit

Construct CityLYNX Gold Line Phase 3 to complete the 10-mile east/west streetcar line connecting Rosa Parks Place Community Transit Center to the Eastland Community Transit Center through Uptown and neighborhoods in West Charlotte and East Charlotte.



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Mobility Opportunities

District 3

Roads & Complete Streets

- 9** miles of **NCDOT Project Partnerships**
- 6** **Traffic Signals**
- 27** miles of **New Street Connections**
- 9** miles of **Fiber Optic Connections**
- 3** **Bridge Replacements**
- 35** miles of **Unlit Thoroughfares**
- 48** miles of **Road Widening & Complete Streets**
- 11** **High Congestion Intersections**

Micromobility

- 25** miles of **Bike Priority Network**
- 34** miles of **Mecklenburg County Greenways**

Transit

- 88** miles of **High-Frequency Bus Corridors**
- 14** **Mobility Hubs**
- 4** **Microtransit Zones**
- 7** miles of **Rapid Transit**

Pedestrian

- 11** **Pedestrian Crossings**
- 118** **Pedestrian Signal Upgrades**
- 63** miles of **Thoroughfares Without Sidewalks**

Spotlights

High-Frequency Bus Corridors

Implement increased frequency for Bus Priority Corridor Route 2 along Ashley Road between the LYNX Blue Line to the Valerie C Woodard Center. A mobility hub at West Boulevard and Remount Road and the overlapping Airport Microtransit Zone are planned to support first/last mile on-demand services.

Rapid Transit

Construct LYNX Silver Line light rail to create an east/west rail corridor and rail trail from the Town of Matthews to the Town of Belmont. Equitable transit-oriented development planning along the corridor will ensure housing options, a mix of uses, and mobility improvements.

NCDOT Project Partnerships

Support NCDOT's plan to widen Steele Creek Road from the state line to I-485, including redesigning the high congestion intersection at Shopton Road West. City funding contributions will install streetlighting and a shared use path for multimodal connectivity to the Hoover Creek and Walker Branch greenways.

New Street Connections

Extend Carowinds Boulevard from South Tryon Street to Shopton Road, providing a new east/west connection in Steele Creek with complete street multimodal facilities.

High Congestion Intersections

Study several high congestion intersections in the Steele Creek area to determine if infrastructure improvements could address congestion. Potential intersections along South Tryon Street include West Arrowood Road, Carowinds Boulevard, and Westinghouse Boulevard.

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Mobility Opportunities

District 4

Roads & Complete Streets

- 3** miles of NCDOT Project Partnerships
- 7** Traffic Signals
- 16** miles of New Street Connections
- 11** miles of Fiber Optic Connections
- 50** miles of Road Widening & Complete Streets
- 47** miles of Unlit Thoroughfares
- 6** High Congestion Intersections

Micromobility

- 8** miles of Bike Priority Network
- 33** miles of Mecklenburg County Greenways

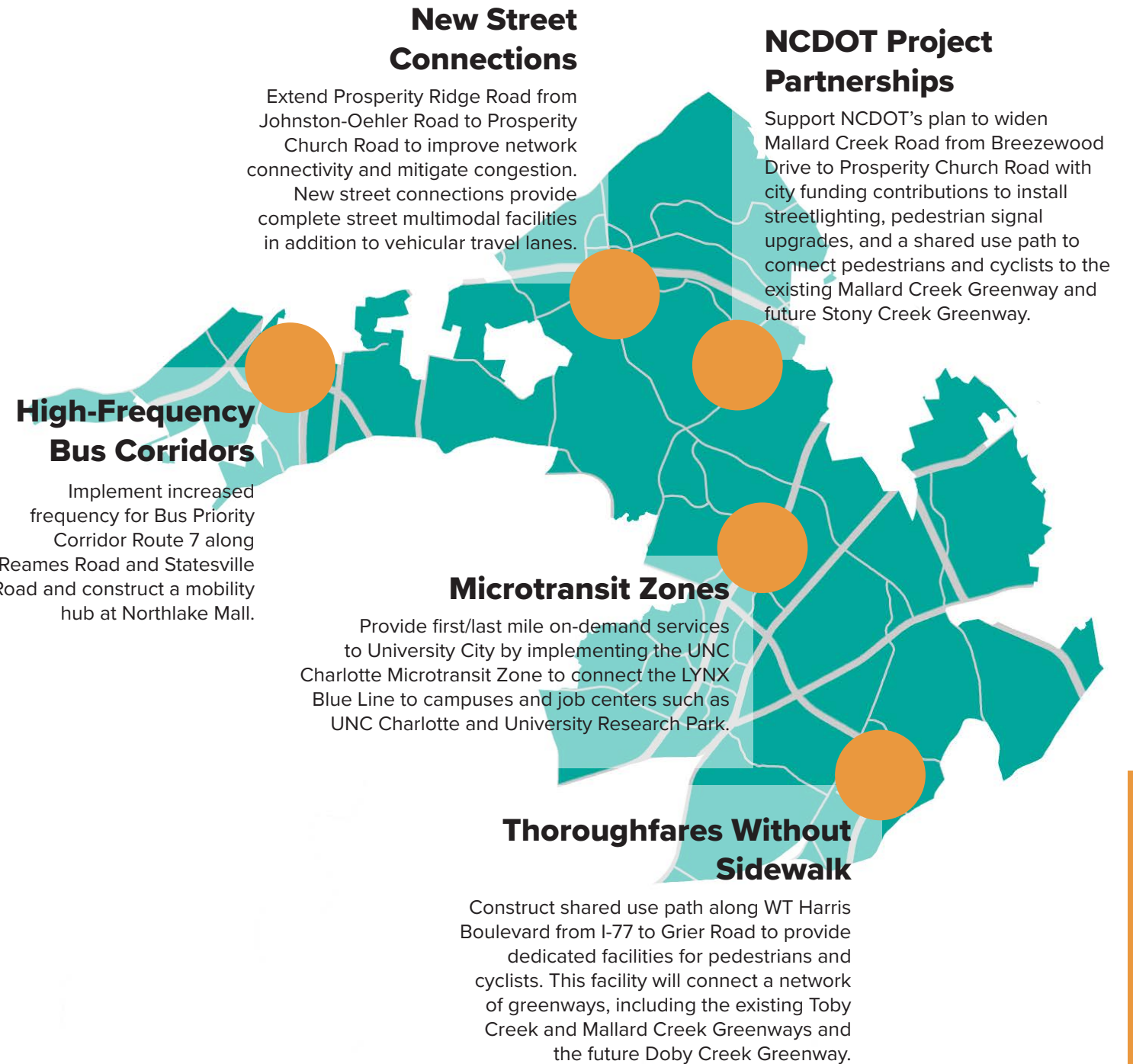
Transit

- 19** miles of High-Frequency Bus Corridors
- 2** Mobility Hubs
- 2** Microtransit Zones
- 2** miles of Rapid Transit

Pedestrian

- 4** Pedestrian Crossings
- 50** Pedestrian Signal Upgrades
- 59** miles of Thoroughfares Without Sidewalks

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Mobility Opportunities

District 5

Roads & Complete Streets

6 miles of **NCDOT Project Partnerships**

5 **Traffic Signals**

13 miles of **New Street Connections**

13 miles of **Fiber Optic Connections**

20 miles of **Road Widening & Complete Streets**

19 miles of **Unlit Thoroughfares**

11 **High Congestion Intersections**

Micromobility

21 miles of **Bike Priority Network**

21 miles of **Mecklenburg County Greenways**

Transit

32 miles of **High-Frequency Bus Corridors**

Pedestrian

5 **Pedestrian Crossings**

6 **Mobility Hubs**

45 **Pedestrian Signal Upgrades**

2 **Microtransit Zones**

24 miles of **Thoroughfares Without Sidewalks**

6 miles of **Rapid Transit**

Rapid Transit

Construct LYNX Silver Line light rail and CityLYNX Gold Line Phase 3 of the streetcar to create important east/west connections, provide multimodal amenities, and incorporate equitable transit-oriented development planning along the corridors to ensure housing options, a mix of uses, and mobility improvements.

New Street Connections

Enhance the street network by constructing the Eastern Circumferential Road from The Plaza to Wilson Grove Road. This approximately five-mile stretch of new, complete street multimodal facilities is intended to mitigate congestion on the existing system.

Thoroughfares Without Sidewalks

Enhance pedestrian safety along the Harrisburg Road corridor with pedestrian signal upgrades, streetlighting, and a shared use path to create an important connection to McKee Creek Greenway.

Mecklenburg County Greenways

Design and build the East/West Trail to provide connectivity to activity centers, jobs, and existing multimodal networks such as the McAlpine Creek Greenway. A preliminary alignment for the trail connects the Town of Matthews to the Whitewater Center.

NCDOT Project Partnerships

Support NCDOT's plan to implement express lanes on Independence Boulevard to mitigate congestion on a primary route to Uptown from southeast Mecklenburg County and Union County. The city will contribute funding to improve parallel routes with multimodal facilities to enhance pedestrian and cyclist safety.

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Mobility Opportunities

District 6

Roads & Complete Streets

- 6** miles of **NCDOT Project Partnerships**
- 4** miles of **New Street Connections**
- 13** miles of **Road Widening & Complete Streets**
- 19** **High Congestion Intersections**
- 4** **Traffic Signals**
- 9** miles of **Fiber Optic Connections**
- 4** miles of **Unlit Thoroughfares**

Micromobility

- 20** miles of **Bike Priority Network**
- 16** miles of **Mecklenburg County Greenways**

Transit

- 42** miles of **High-Frequency Bus Corridors**
- 7** **Mobility Hubs**
- 2** **Microtransit Zones**
- 2** miles of **Rapid Transit**

Pedestrian

- 11** **Pedestrian Crossings**
- 79** **Pedestrian Signal Upgrades**
- 10** miles of **Thoroughfares Without Sidewalks**

Bike Priority Network

Partner with the private sector to complete The Loop, a three-mile shared use path through the heart of SouthPark. The Loop is designed to comfortably accommodate pedestrians and cyclists and provide a hub for connections to the future McMullen Creek Greenway extension and the existing Backlot Trail, which connects to Park Road Park and the Cross Charlotte Trail.

High Congestion Intersections

Study several high congestion intersections to determine if infrastructure improvements could mitigate congestion. Potential intersections include Park Road and East Woodlawn Road, Colony Road and Fairview Road, Fairview Road and Providence Road, and Randolph Road and Sharon Amity Road.

New Street Connections

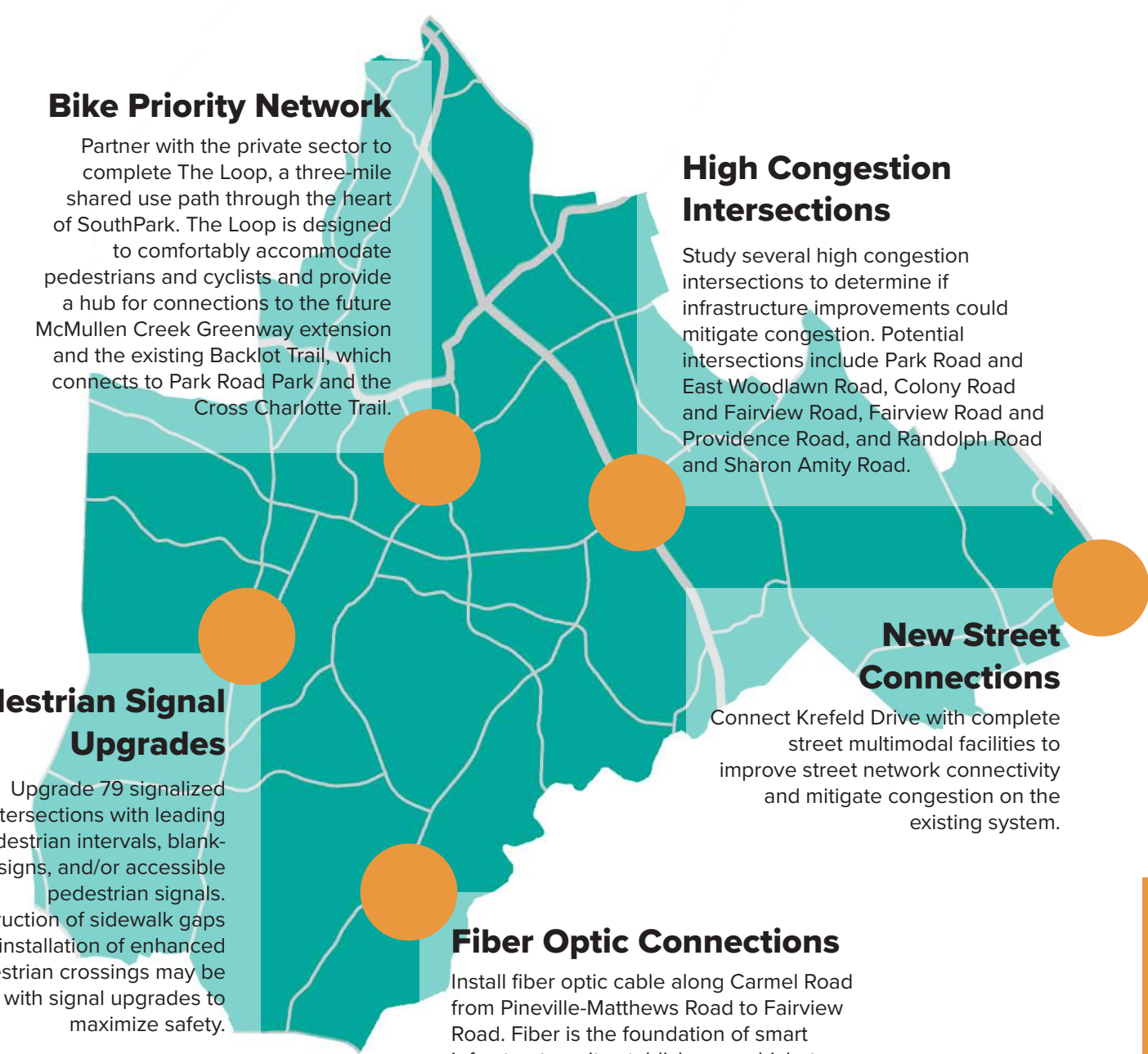
Connect Krefeld Drive with complete street multimodal facilities to improve street network connectivity and mitigate congestion on the existing system.

Pedestrian Signal Upgrades

Upgrade 79 signalized intersections with leading pedestrian intervals, blank-out signs, and/or accessible pedestrian signals. Construction of sidewalk gaps and installation of enhanced pedestrian crossings may be paired with signal upgrades to maximize safety.

Fiber Optic Connections

Install fiber optic cable along Carmel Road from Pineville-Matthews Road to Fairview Road. Fiber is the foundation of smart infrastructure; it establishes a vehicle-to-infrastructure (V2I) network that prepares for automation, provides real-time data sharing, and facilitates transit priority operation.



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Mobility Opportunities

Spotlights

District 7

Roads & Complete Streets

- 4** miles of **NCDOT Project Partnerships**
- 2** **Traffic Signals**
- 5** miles of **New Street Connections**
- 8** miles of **Fiber Optic Connections**
- 29** miles of **Road Widening & Complete Streets**
- 27** miles of **Unlit Thoroughfares**
- 18** **High Congestion Intersections**

Micromobility

- 6** miles of **Bike Priority Network**
- 25** miles of **Mecklenburg County Greenways**

Transit

- 13** miles of **High-Frequency Bus Corridors**
- 3** **Mobility Hubs**
- 1** **Microtransit Zone**
- 3** miles of **Rapid Transit**

Pedestrian

- 6** **Pedestrian Crossings**
- 41** **Pedestrian Signal Upgrades**
- 24** miles of **Thoroughfares Without Sidewalks**

Thoroughfares Without Sidewalk

Connect sidewalk gaps along streets where development has incrementally constructed a disconnected network of pedestrian facilities. Examples of opportunities include along Alexander Road, Old Providence Road, and Rea Road.

Rapid Transit

Construct LYNX Blue Line Pineville-Ballantyne Extension to connect South Charlotte to Uptown. Integration of the Ballantyne Microtransit Zone will provide additional first/last mile on-demand service to existing and future job centers such as Ballantyne Reimagined.

New Street Connections

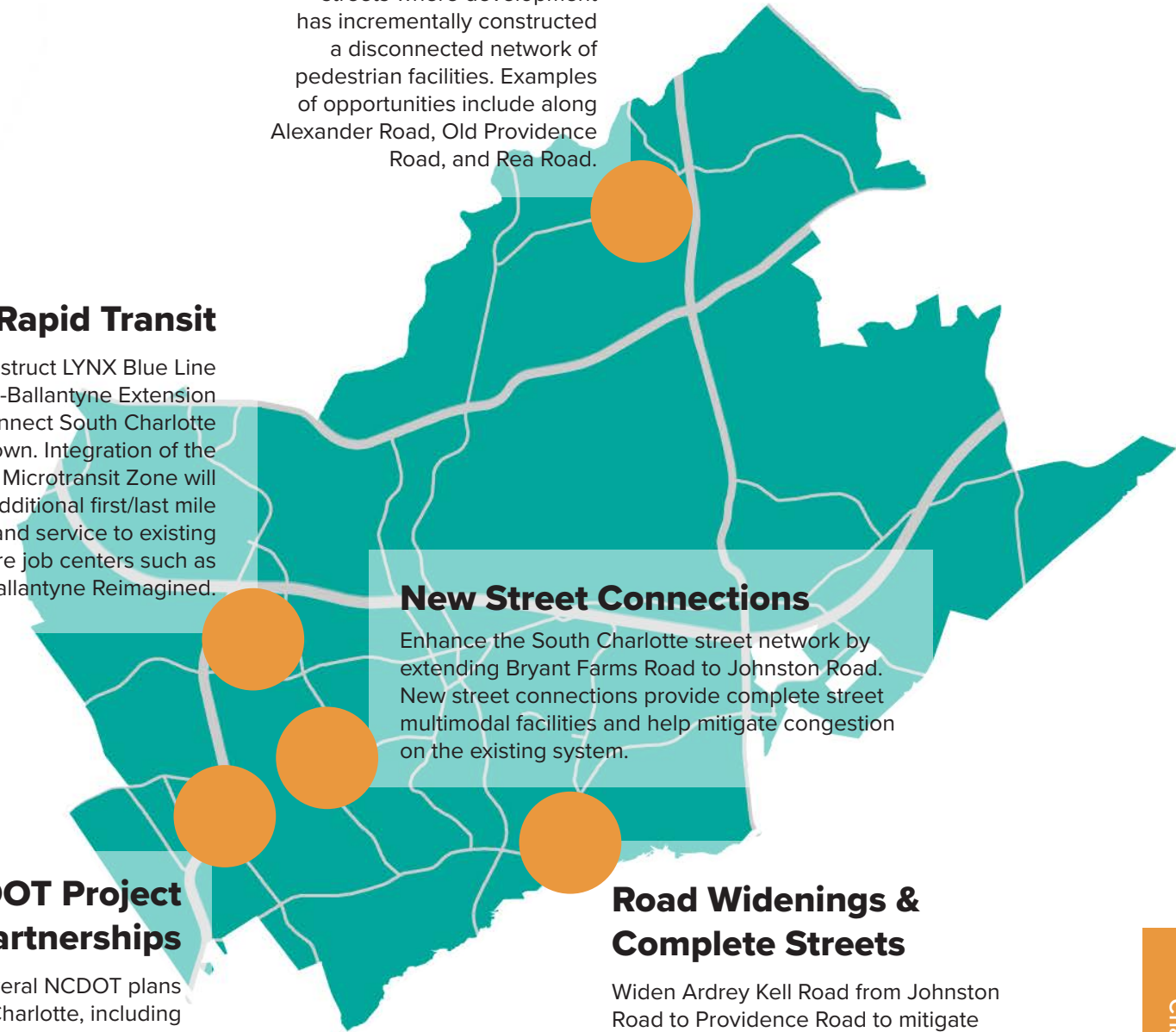
Enhance the South Charlotte street network by extending Bryant Farms Road to Johnston Road. New street connections provide complete street multimodal facilities and help mitigate congestion on the existing system.

NCDOT Project Partnerships

Support several NCDOT plans in South Charlotte, including widening Johnston Road from Ballantyne Commons Parkway to the state line and improving the I-485 interchange at Providence Road. The city plans to support these congestion mitigation efforts with funding to install streetlighting and shared use paths for multimodal connectivity.

Road Widening & Complete Streets

Widen Ardrey Kell Road from Johnston Road to Providence Road to mitigate congestion and provide complete street multimodal facilities for improved access to activity centers and recreation destinations such as Elon Park, Flat Branch Park, and the future Flat Branch Greenway and Six Mile Creek Greenway extension.



The spotlights on the map represent a sample of Mobility Opportunities. The Identified Mobility Opportunities Report contains a full list of opportunities. All mileages are approximate until alignments have been refined through advanced planning.

Future of Urban Mobility

Our Opportunity

The future of transportation infrastructure will not just be asphalt and concrete, but an ecosystem of advanced technologies and integrated mobility services, both public and private, that move people seamlessly across all modes.

Mobility Opportunity

The rapid pace of technology innovation in transportation presents an opportunity to introduce new services, transform customer expectations and experiences, and re-envision the way we move through the world around us.

Economic Opportunity

This state of technological transformation also connects mobility and economic opportunity in new ways - opening doors for small business creation, incubation and innovative expansion around mobility service, data management, and mobility technology infrastructure.

Defining Our Role

The city's emerging role in this ecosystem is to prepare for one integrated mobility vision that moves people and goods by whatever means (public or private) or mode (autonomous, on the ground, in the air) is most efficient, today and in our future.

Our Approach

Prepare for Automation

To be a national leader in the deployment of ubiquitous autonomous mobility by preparing our fiber optic network in support of a vehicle-to-infrastructure (V2I) future

Facilitate Mobility as a Service

To connect the growing universe of on-demand mobility services through a regional Transportation Operating System (tOS) to achieve our mobility aspirations

Establish Mobility Hubs & Microtransit Zones

To build physical hub infrastructure to facilitate mobility services for first/last mile connectivity and on-demand services that extend public transportation

The future of transportation infrastructure will not just be asphalt and concrete.





Envision a mobility system that is good for residents, good for business, good for the environment, and good for equity.



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April 2023

Shape
the

FUTURE

of how
we

MOVE