

Bus Rapid Transit (BRT)

WELCOME!



WELCOME TO THE WAKE BUS RAPID TRANSIT: WESTERN BOULEVARD CORRIDOR STUDY KICK-OFF MEETING!

**THE PURPOSE OF THIS MEETING IS TO INFORM THE PUBLIC ABOUT BRT AND GATHER FEEDBACK ON
KEY DESTINATIONS SERVED BY BRT TO IDENTIFY PREFERRED ALIGNMENT OPTIONS.**



A brief presentation will begin at 6:30PM. In the meantime, please feel free to spend as much time as you want at the stations.



Walk around to each information booth to learn more about the project and talk with staff. Refreshments are provided.



Fill out a comment form, add your comments to the project map or the map of the corridor, and to the community wall activity to give us your feedback. You can also fill out the survey online at **planningforraleigh.com/BRTprojects**.



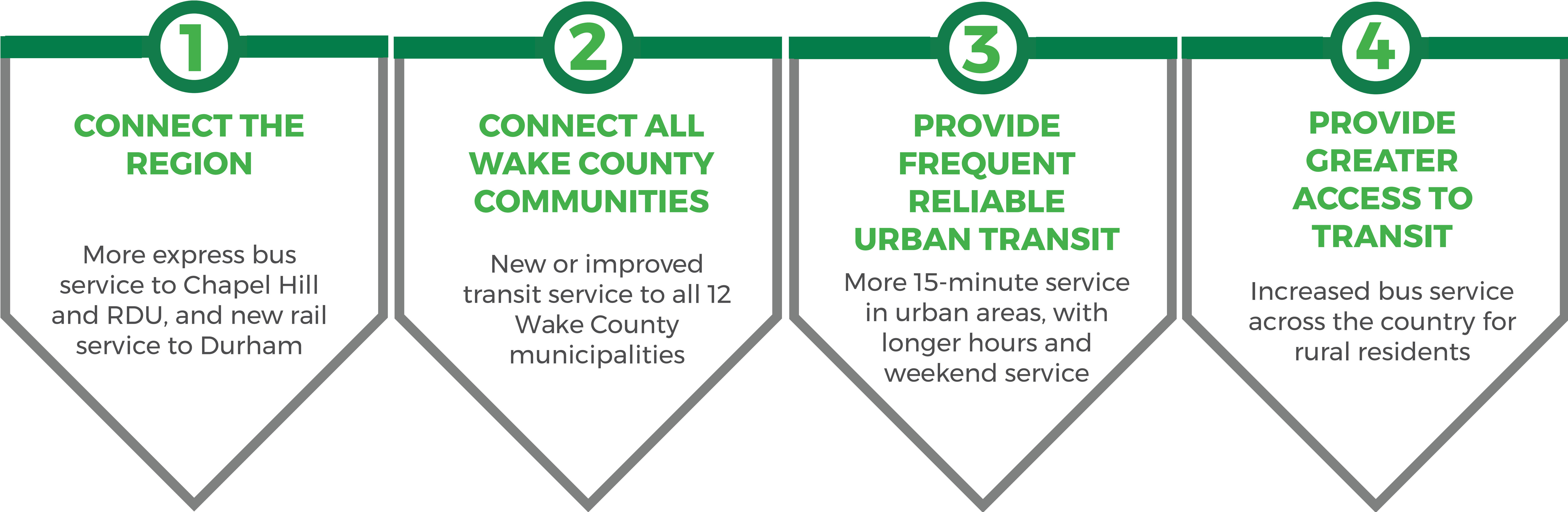
Spanish translation available by request / Traducción al Español está disponible a pedido.

Bus Rapid Transit (BRT)

WAKE TRANSIT PLAN



THE WAKE COUNTY TRANSIT PLAN INCLUDES FOUR “BIG MOVES”



Implement Bus Rapid Transit (BRT)



BRT creates dedicated bus lanes on local roads so bus operators can bypass traffic and keep their routes on schedule.

Fund Local Service



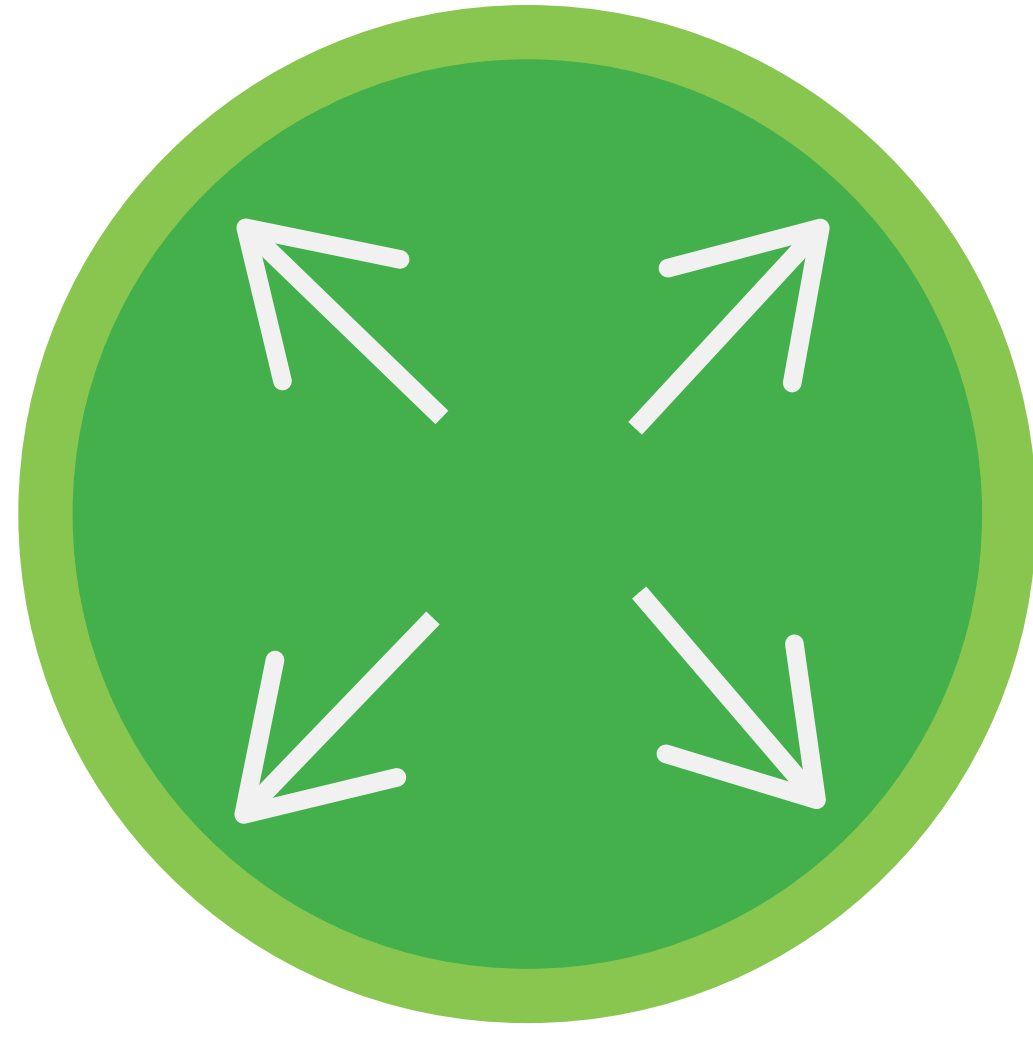
The Plan also expands transit in Wake County for municipalities that currently do not have service by allowing them to apply for matching funds to develop and operate local bus service.

Increase Bus Service



Expand existing frequent bus services from 17 to 83 miles, with service at least every 15 minutes

Expand Rural On-Demand Service



Many Wake County residents depend on rural, on-demand transit services to get to necessary destinations.

Implement Commuter Rail Transit (CRT)



CRT will use existing railroad tracks to provide comfortable passenger service that allows riders to relax or work on their way to key destinations.

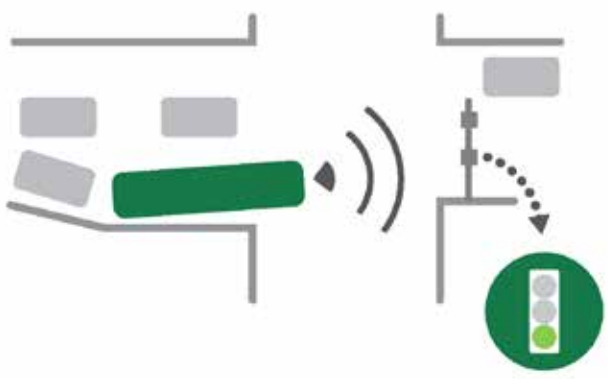
Bus Rapid Transit (BRT)

WHAT IS BRT?



WHAT IS BRT?

Bus Rapid Transit (BRT) is a flexible, high speed bus service that combines physical and operational elements to improve speed and reliability. BRT creates dedicated bus lanes on local roads so bus operators can bypass traffic and keep their routes on schedule. The plan calls for building approximately 20 miles of BRT lanes. Along these BRT corridors, buses will have priority treatment at traffic signals. BRT stops will feature raised platforms, making it easier for passengers with wheelchairs, strollers or bicycles to board the bus. Fares are collected on the platform so riders can board without delay.



Transit Signal Priority
Intersection improvements including transit signal priority (TSP) allow buses to bypass congestion. TSP does so by giving buses longer green lights.



Bus Rapid Transit Branding
Unique designs make buses and stations more visible, raising awareness by distinguishing BRT from other transit services.



Dedicated Lanes
Bus-only lanes separate transit from traffic, and may be painted red or another color to increase their visibility.



Specialized Vehicles
Custom buses provide more capacity, more doors and lower floors for easier loading and unloading, and unique designs.



Enhanced Stations
BRT stations include raised platforms, ticket vending machines, real-time arrival information, larger shelters, quality lighting, and other passenger amenities.

Source: GoForward



Frequent On-time Service
BRT buses would operate at least every 15 minutes for more than 12 hours a day.

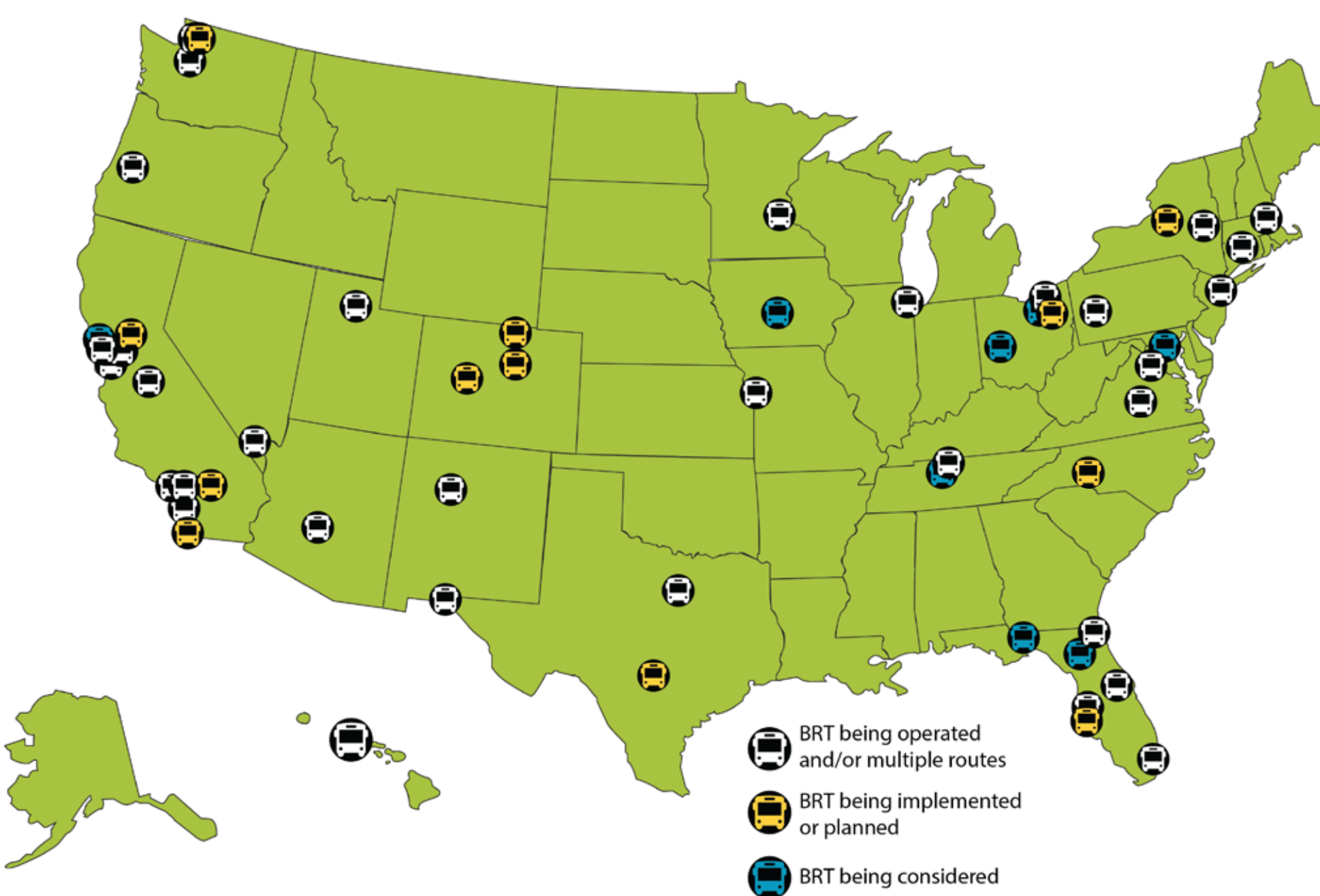


Enhanced Fare Collection System
Off-board fare collection using ticket vending machines, card readers and other tools at stations allows passengers to load without waiting in line to pay their fares.

BENEFITS OF BRT

- Improve Mobility:** Connect people to jobs, education resources, and other opportunities
- Transit-Oriented, Sustainable Development:** Support walkable places that support both housing and commercial destinations
- Reduce Emissions:** Improve air quality by reducing the number of vehicles on the road
- Enhance Equity:** Save money for households who drive less or opt out of car ownership altogether

U.S. CITIES WITH BRT



PRECEDENTS



BRANDED BUS AND STATION WITH REAL-TIME ARRIVAL INFORMATION
CTfastrak, Central Connecticut, CT



DEDICATED BUS WAY
Pulse BRT, Richmond, VA



DEDICATED BUS WAY
EmX, Eugene, OR



MODERN STATION WITH SHELTERS AND LIGHTING
MAX BRT, Kansas City, MO



STATION WITH SHELTERS AND AMENITIES
Orange Line, Los Angeles, CA



IMPROVED STATION AREA STREETSCAPE
Health Line, Cleveland, OH

Bus Rapid Transit (BRT)

TRANSIT SUPPORTIVE PLANNING

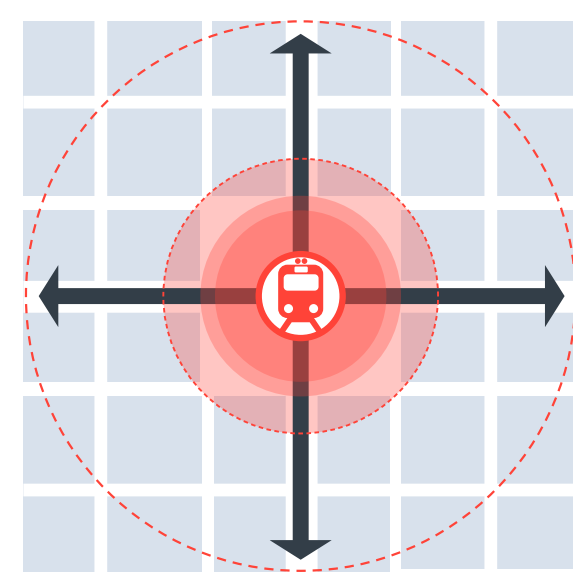


WHAT IS TRANSIT-ORIENTED DEVELOPMENT (TOD)?

TOD is physical development oriented to transit. TOD is centered around quality public transportation and often includes a mix of housing, office, retail, and other uses to meet daily needs. TOD creates walkable neighborhoods around transit and provides a focus for a community. It allows for mobility choice to improve quality of life and spur economic development. TOD is designed specifically to its context and can take many forms, but is generally higher density than the surrounding uses to allow for a mix of uses within a short walk from transit.

TOD IS:

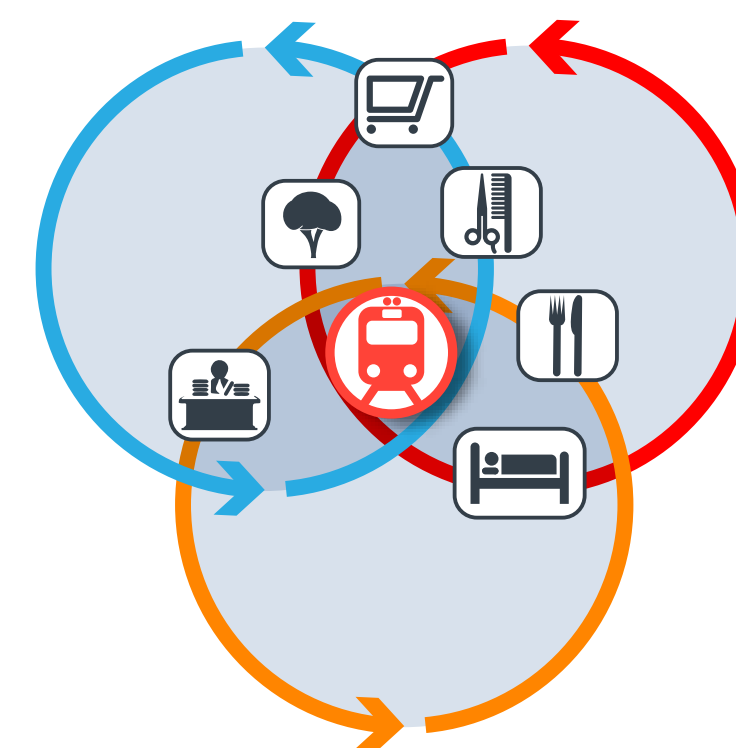
CONNECTED & ACCESSIBLE



FOCUSED & COMPACT

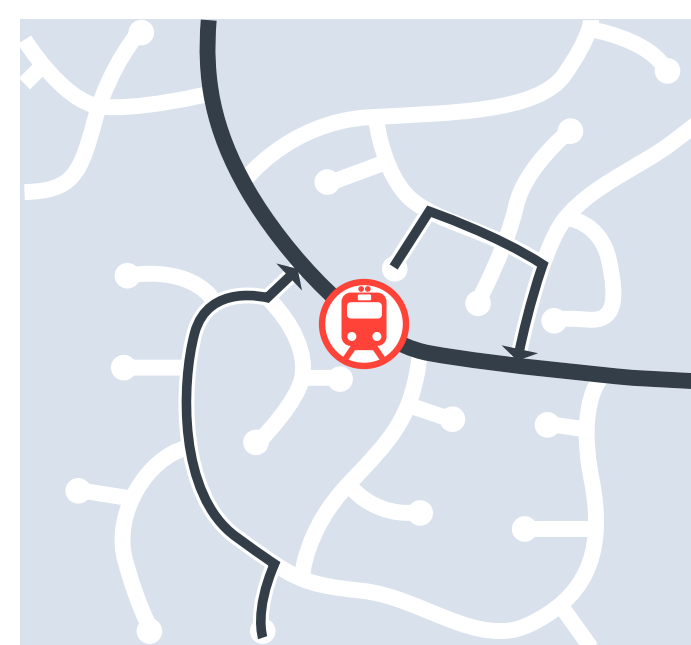


MIXED-USE

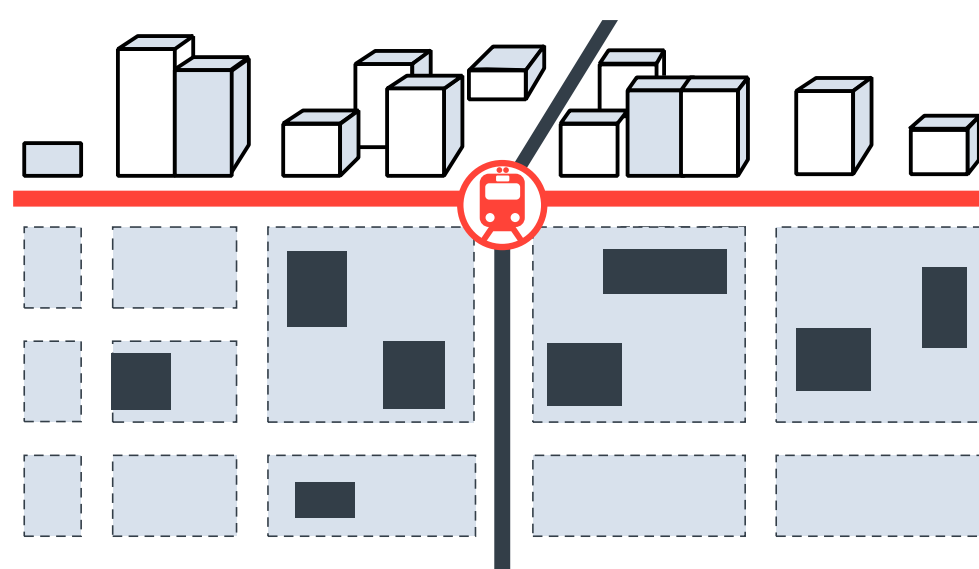


TOD IS NOT:

ISOLATED



SPARSE



SEPARATED & HOMOGENEOUS



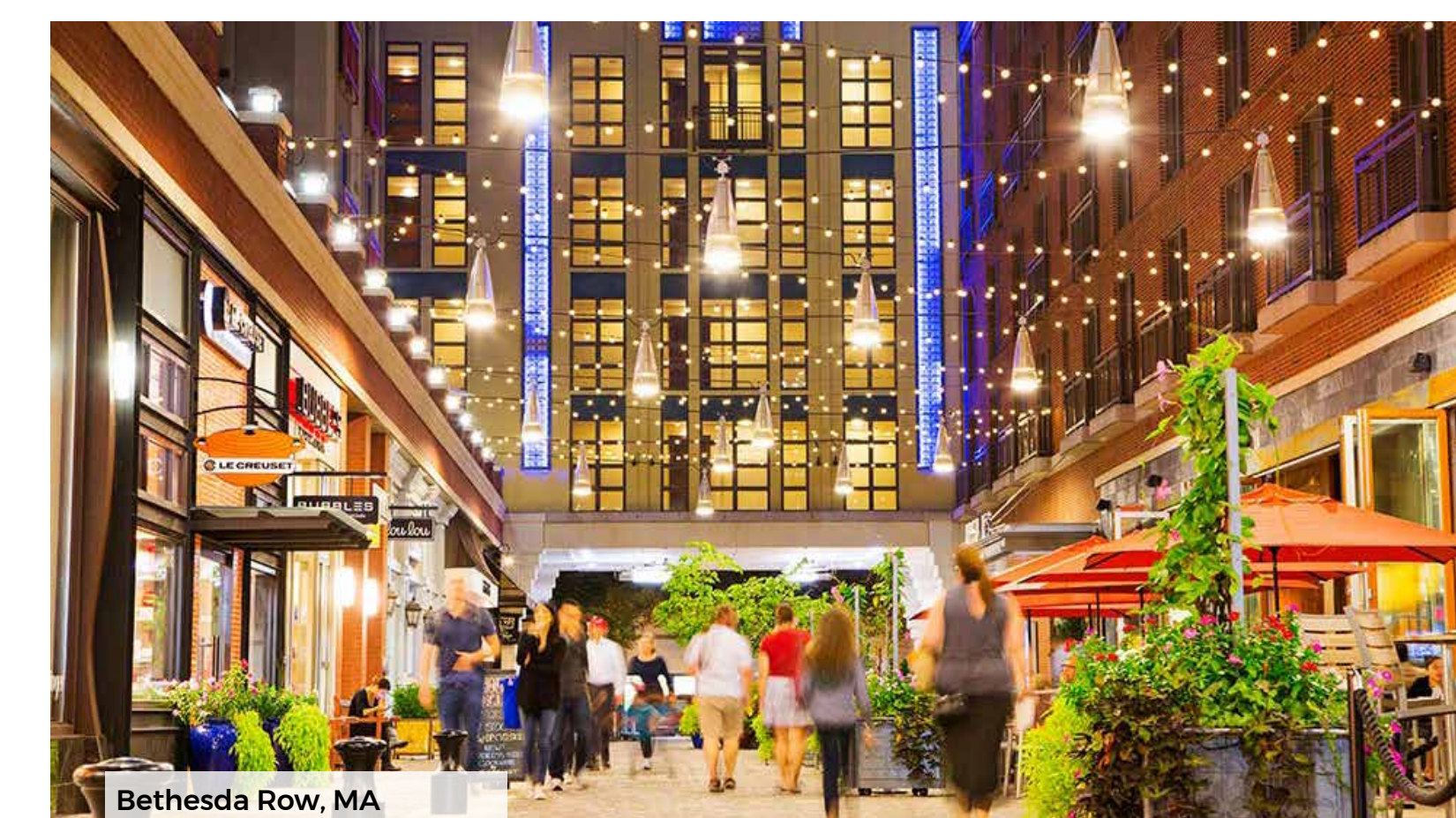
BENEFITS OF TOD



- Expands choices for getting around
- Connects between different transit modes
- Promotes walkability and an active lifestyle



- Creates vibrant centers of activity
- Creates places to live/work/play
- Enhances the public spaces



- Brings shops, jobs, and homes closer together to promote a community that is walkable
- Enhances the local tax base with compact, high value development



- Provides a space for growth without impacting existing neighborhoods
- Promotes economic development and can increase adjacent property values

DEVELOPMENT SCALES IN RALEIGH



18-STORY OFFICE, RESIDENTIAL, AND RETAIL
The Dillon, Raleigh, NC



FOUR-STORY RESIDENTIAL OVER RETAIL
401 Oberlin apartment building, Raleigh, NC



THREE-STORY SUBSIDIZED RENTAL HOUSING
The Village at Washington Terrace, Raleigh, NC



TWO-STORY TOWNHOUSES
St. Mary's Townhomes, W. Hargett Street, Raleigh, NC



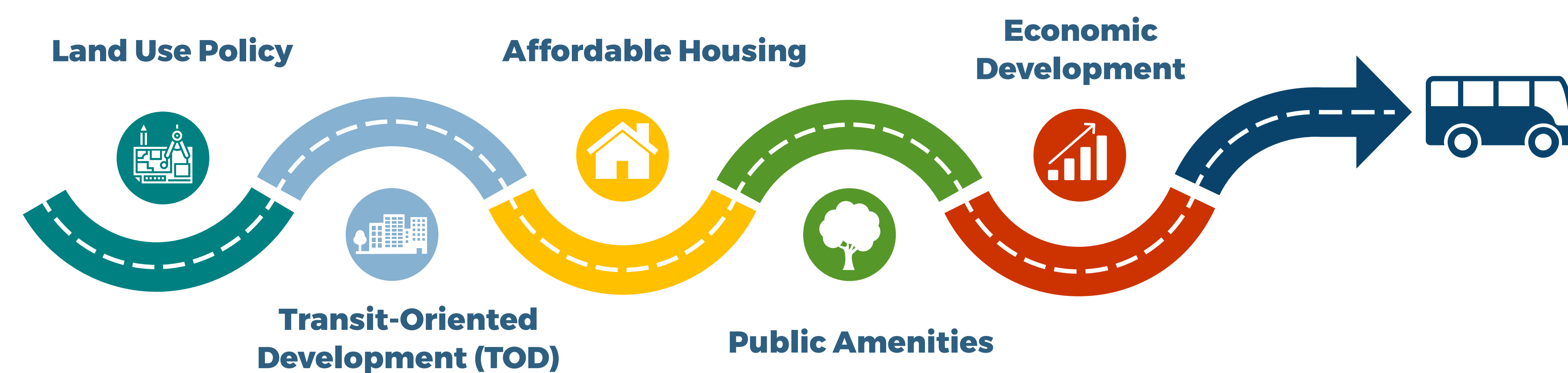
FOURPLEX APARTMENT
122 Hillcrest, Raleigh, NC

Bus Rapid Transit (BRT)

TRANSIT SUPPORTIVE PLANNING



LEVERAGE TRANSIT INVESTMENTS FOR MORE SUSTAINABLE GROWTH



BENEFITS FOR RALEIGH

- Improving access to the region's prosperity by connecting people to jobs, education, and other opportunities.
- Supporting mixed-use, walkable places, which are economically more productive and environmentally more sustainable, reducing carbon emissions and other air pollutants.
- Saving money for households, enabling them to avoid car ownership or reduce the number of vehicles owned.

PLANNING AROUND TRANSIT IMPROVES SUSTAINABILITY AND EQUITY

Transit Corridor Focuses and Accommodates Regional Growth



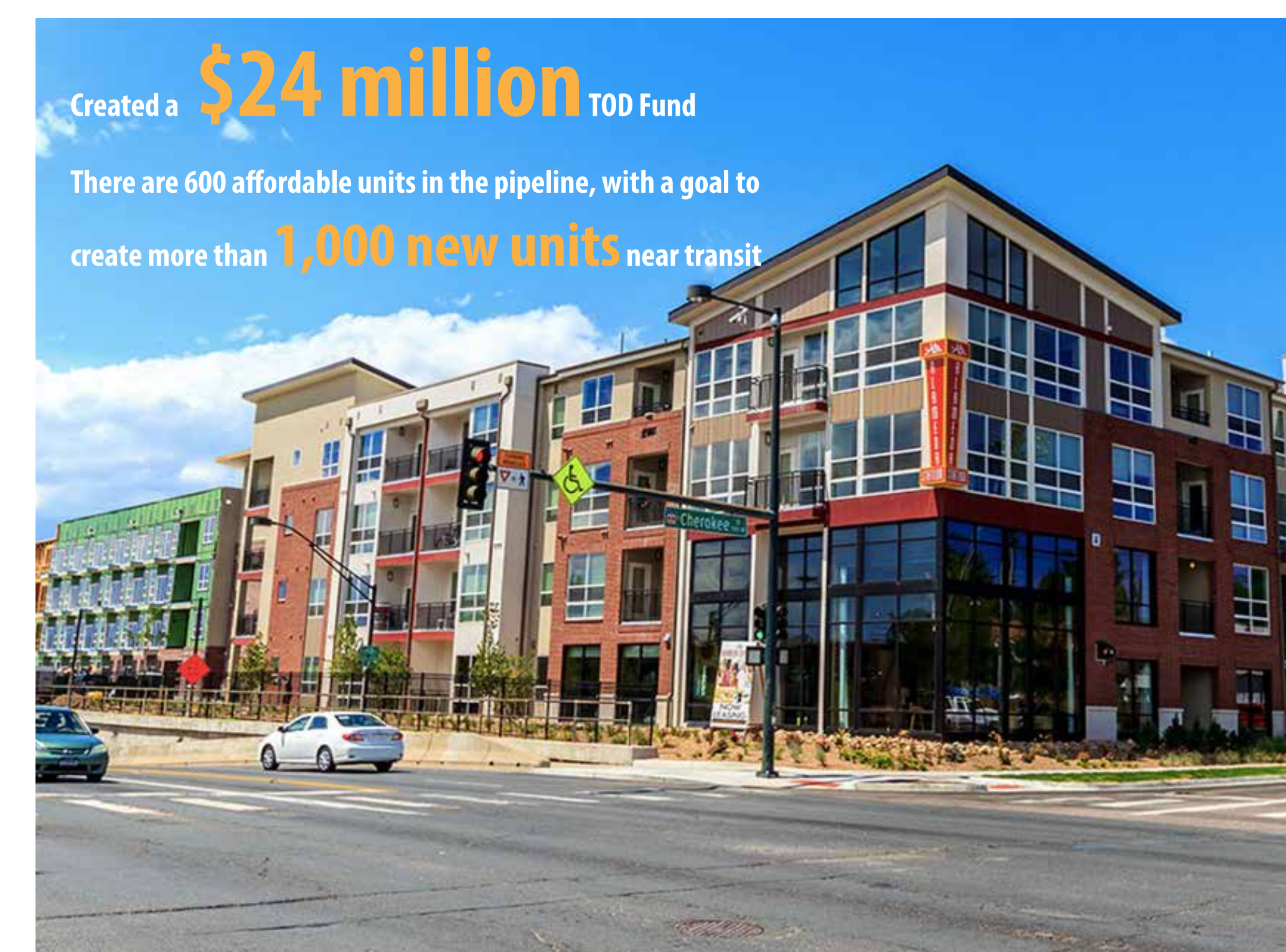
Rosslyn-Ballston Metrorail corridor, Arlington, VA

Transit Spurs Economic Growth



Health Line, Cleveland, OH

Transit Can be Coordinated with Affordable Housing



BRT, light rail, commuter rail, Denver, CO

Transit Reduces Carbon Footprint and Promotes Health



Health Line, Cleveland, OH

Transit Increases Access to Jobs



CTfastrak, Central Connecticut, CT

Transit Reduces Travel Expenses

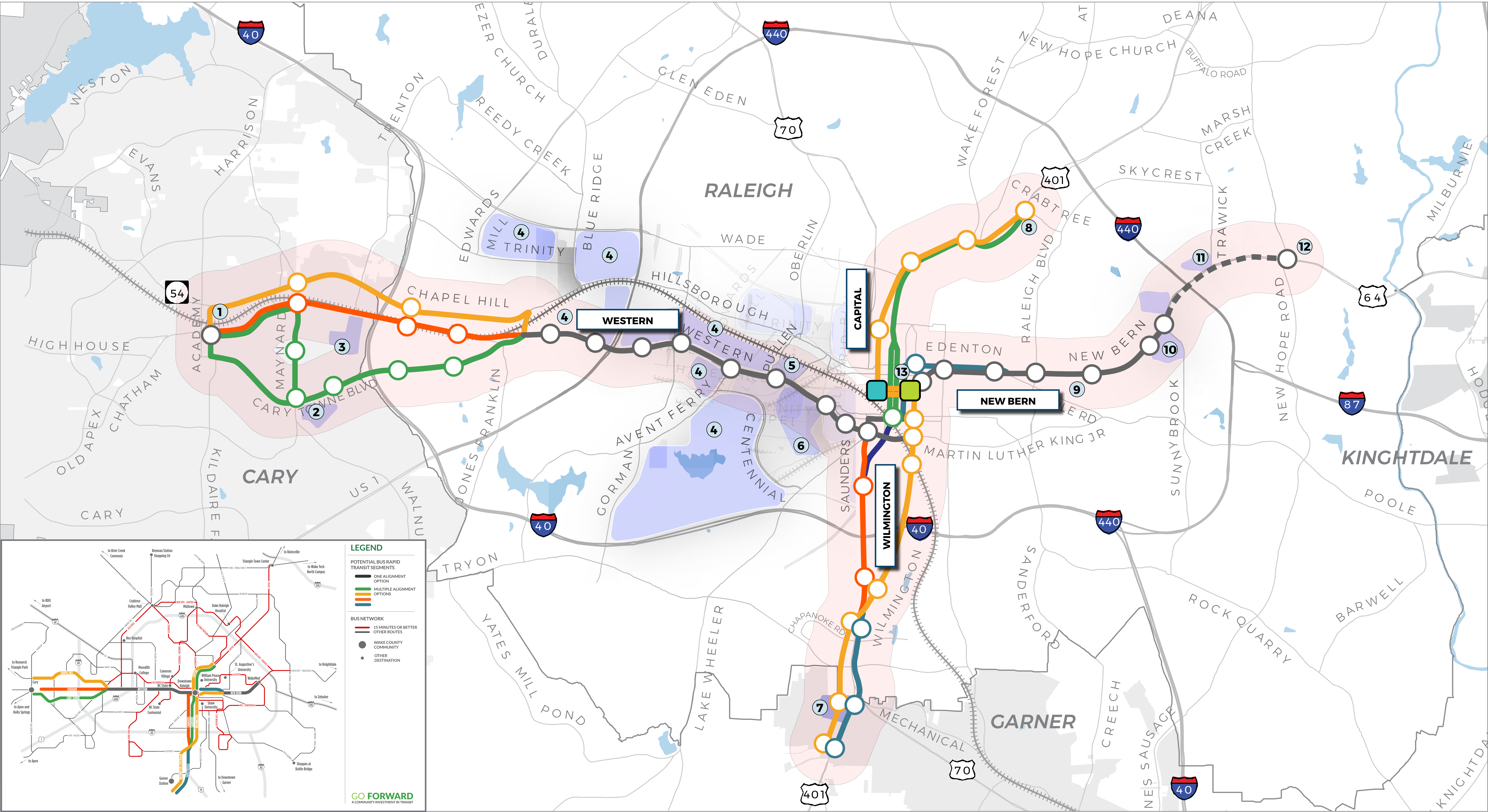


Light rail, streetcar, bus, Portland, OR

Bus Rapid Transit (BRT)

WAKE BRT CORRIDORS





Bus Rapid Transit Corridor

(Infrastructure Improvements)

Bus Rapid Transit Corridor

(Alternative Alignments)

Commuter Rail Corridor

Area within a Half-Mile Distance from the BRT Corridor

Raleigh Union Station

GoRaleigh Station

Potential BRT Station Location

Key Destinations

1. Downtown Cary

2. Cary Town Center

3. Wake Med Soccer Park

4. North Carolina State University

5. Pullen Park

6. Dorothea Dix Park

7. South Station Shopping Center

8. Greyhound Bus Station

9. Longview Shopping Center

10. Wake Med Raleigh Campus

11. Tower Shopping Center

12. Walmart at New Hope Road

13. State Capitol

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1

1.5

2

Mile

N

raleighnc.gov/BRT

Bus Rapid Transit (BRT)

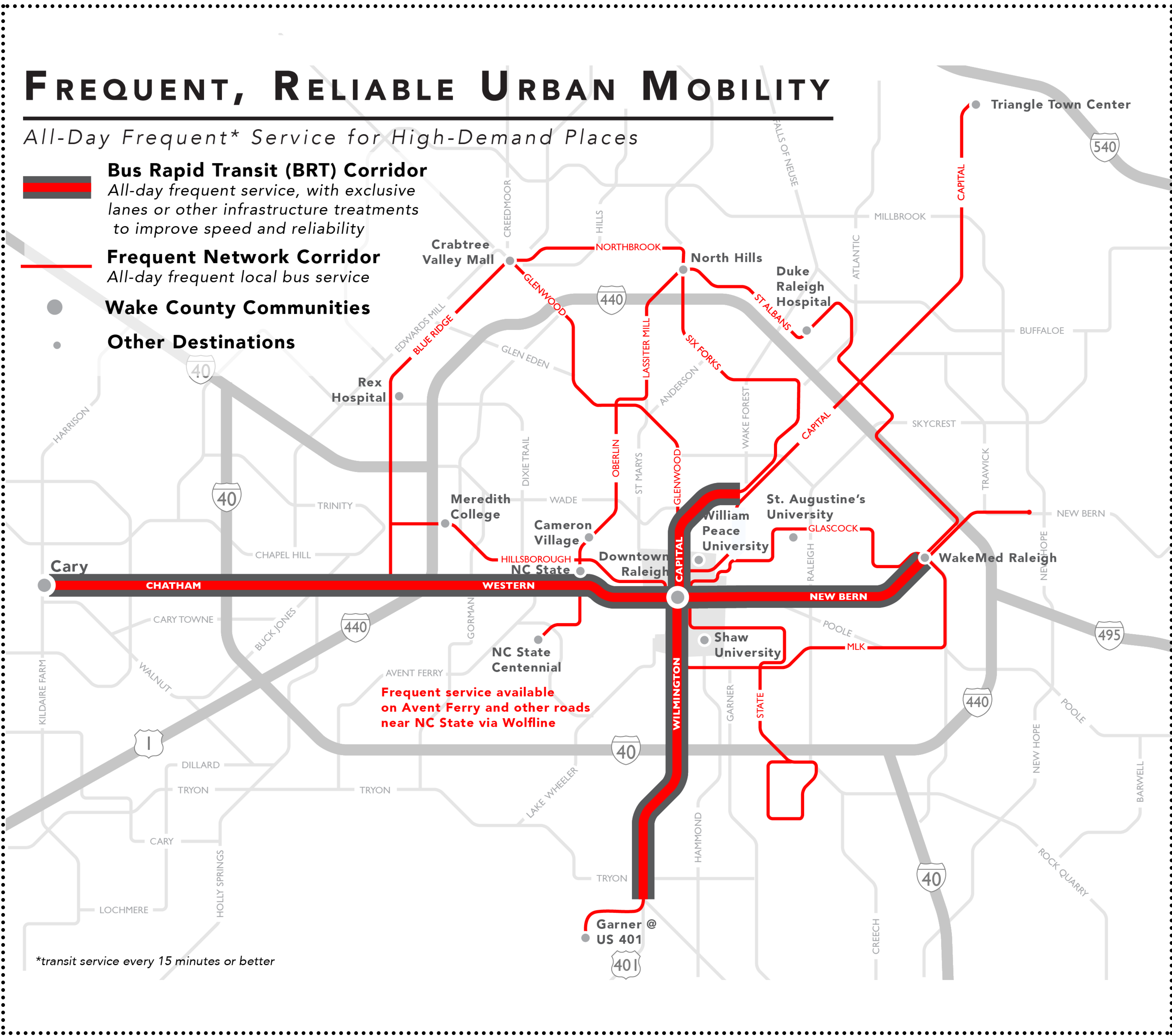
HOW DID WE GET HERE?



2016

WAKE TRANSIT PLAN

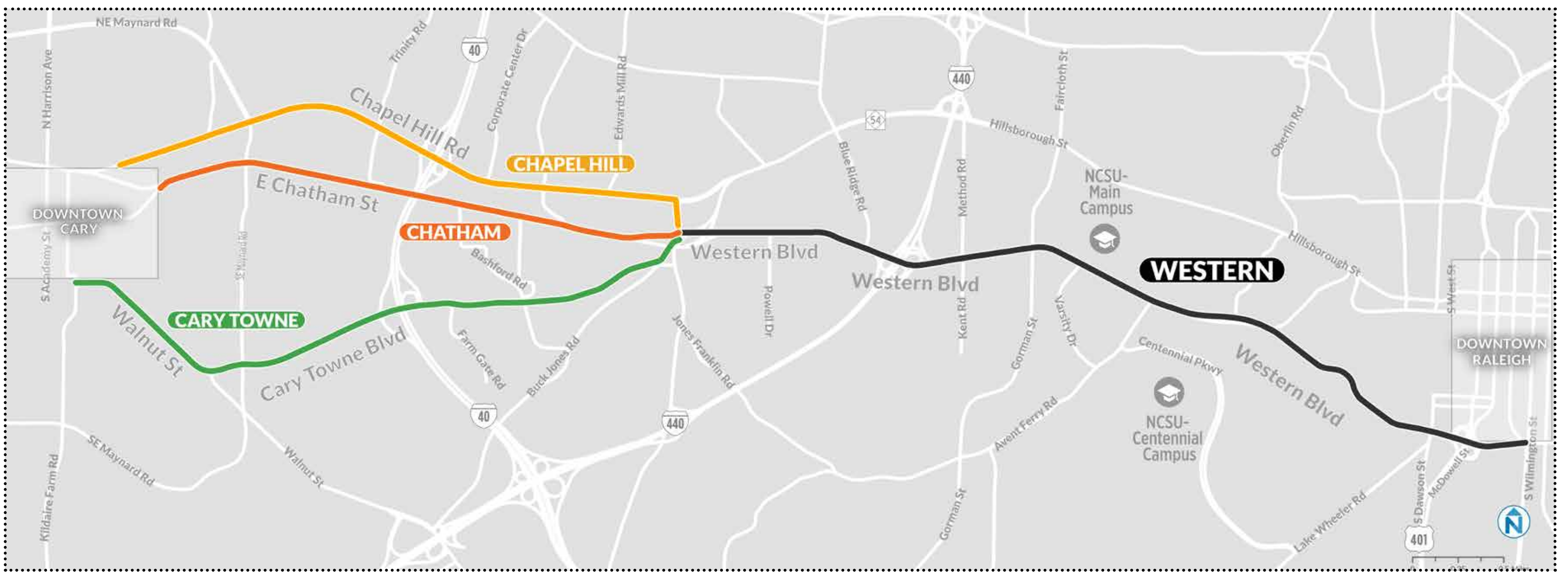
Wake County residents voted in favor of the Wake Transit Plan in November 2016. The Plan recommends 20 miles of BRT infrastructure to be implemented along four (4) corridors in Wake County to provide frequent and reliable urban mobility.



2017/2018

MAJOR INVESTMENT STUDY

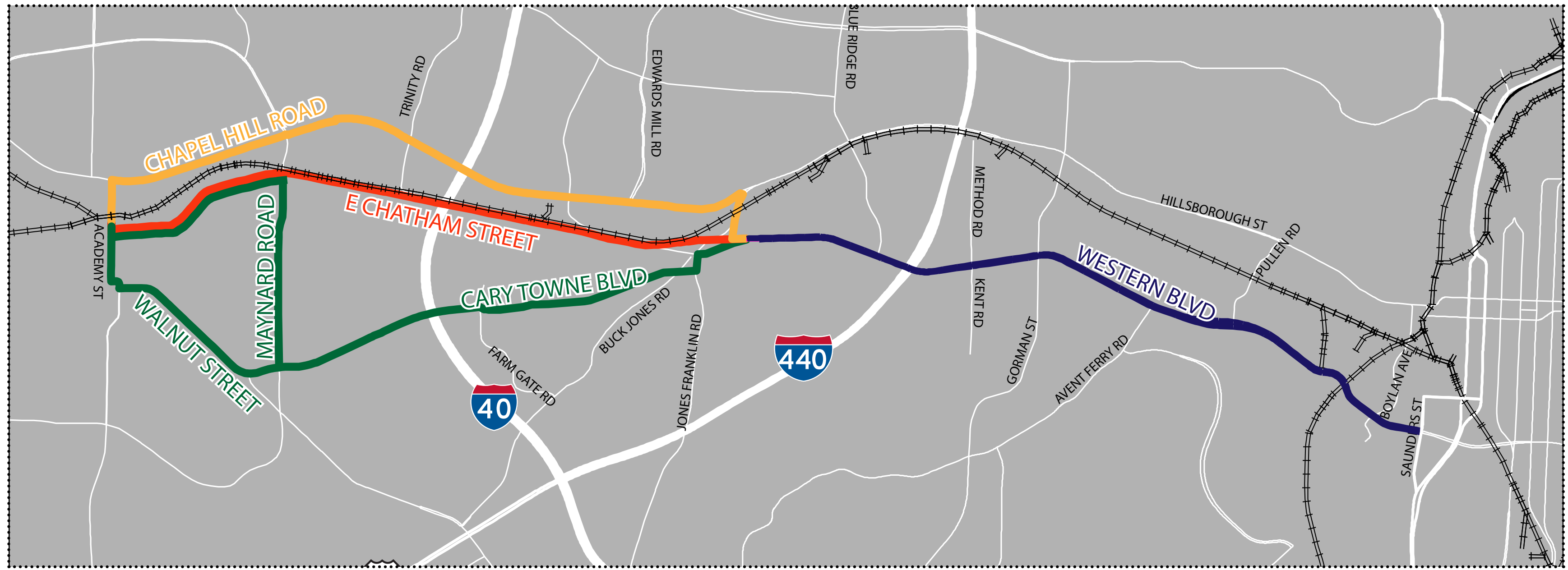
The Major Investment Study (MIS) gathered and analyzed information to identify a single alignment alternative from Downtown Raleigh to Jones Franklin Road. West of Jones Franklin Road the MIS study identified three alignment alternatives for serving Cary.



2019

WESTERN BOULEVARD CORRIDOR STUDY

This study will help identify a preferred BRT alternative alignment along the Western Boulevard Corridor. Comments from the MIS and recently proposed developments provided the opportunity to reanalyze the alignments from the MIS. This analysis will include an additional alignment along Cary Towne Boulevard and Maynard Road to serve more residential and commercial areas.

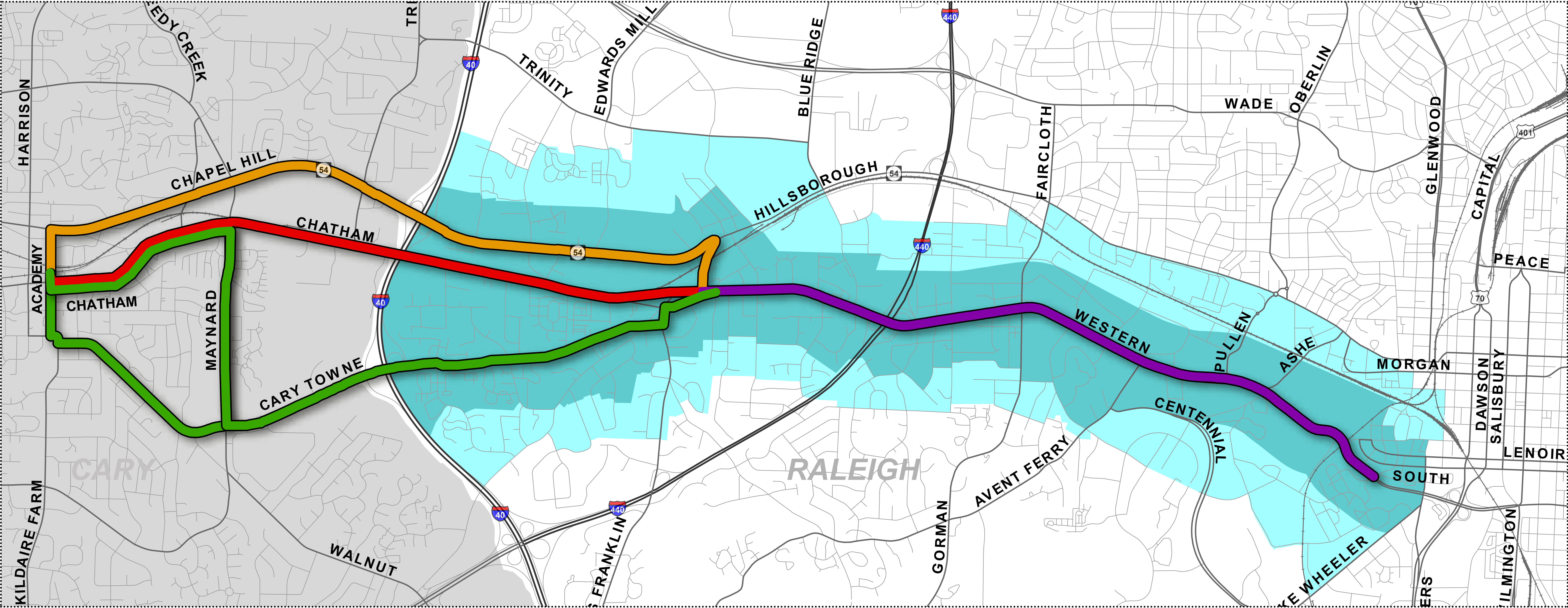


Bus Rapid Transit (BRT)

WAKE BRT: WESTERN BOULEVARD CORRIDOR STUDY



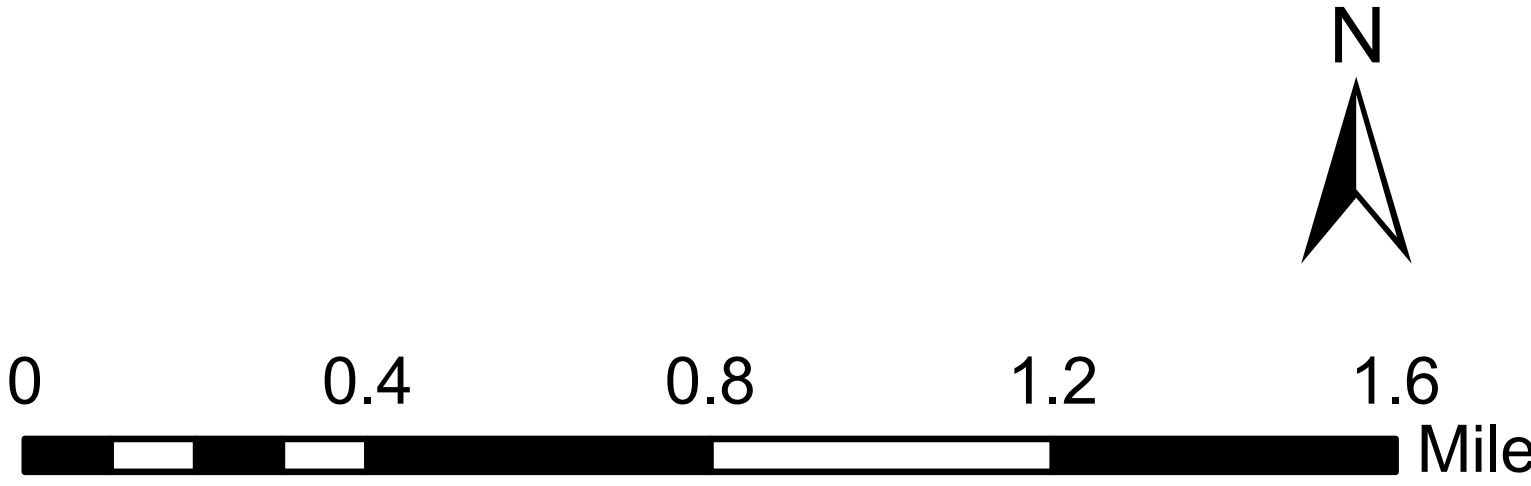
STUDY AREA MAP AND ALIGNMENTS



- Wake BRT: Western Boulevard Corridor Alignments**
- Western Boulevard
 - Chapel Hill Road
 - Chatham Street / Hillsborough Road
 - Western Boulevard Extension / Cary Towne Boulevard

- City of Raleigh Study Area**
- 1/4 Mile Properties (5-minute walk)
 - 1/2 Mile Properties (10-minute walk)

**A land use study for the Cary portion of the BRT Corridor will be completed after selection of a preferred route.*



Bus Rapid Transit (BRT)

WAKE BRT: WESTERN BOULEVARD CORRIDOR STUDY



PROJECT PURPOSE

Find the best way to integrate BRT along Western Boulevard to connect Downtown Raleigh, NC State University, and Downtown Cary.

PROJECT GOALS

- Identify preferred BRT alternative alignment
- Understand the transit oriented development potential
- Develop land use strategy
- Coordinate with other active projects

WHAT TO EXPECT DURING EACH TASK?

PUBLIC INVOLVEMENT

- 4 Rounds of Public Meetings
- 10 Stakeholder Meetings
- Pop-up and other public events

EXISTING CONDITIONS

- Critical Issues
- Refine BRT Alignment Alternatives

MULTIMODAL ANALYSIS

- Transit Analysis
- Pedestrian & Bicycle Inventory
- Multimodal Safety Analysis

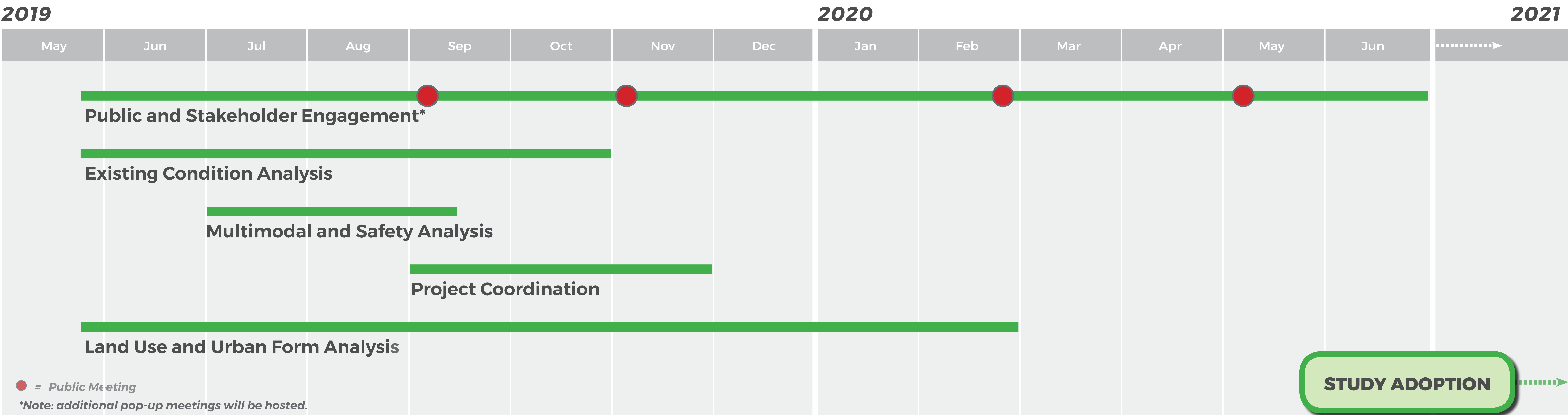
LAND USE & URBAN FORM ANALYSIS

- Market Analysis
- Land Use Capacity Analysis
- Transit Oriented Development Strategy

PROJECT COORDINATION

- Coordination with other active and planned projects along the corridor.

PROJECT SCHEDULE

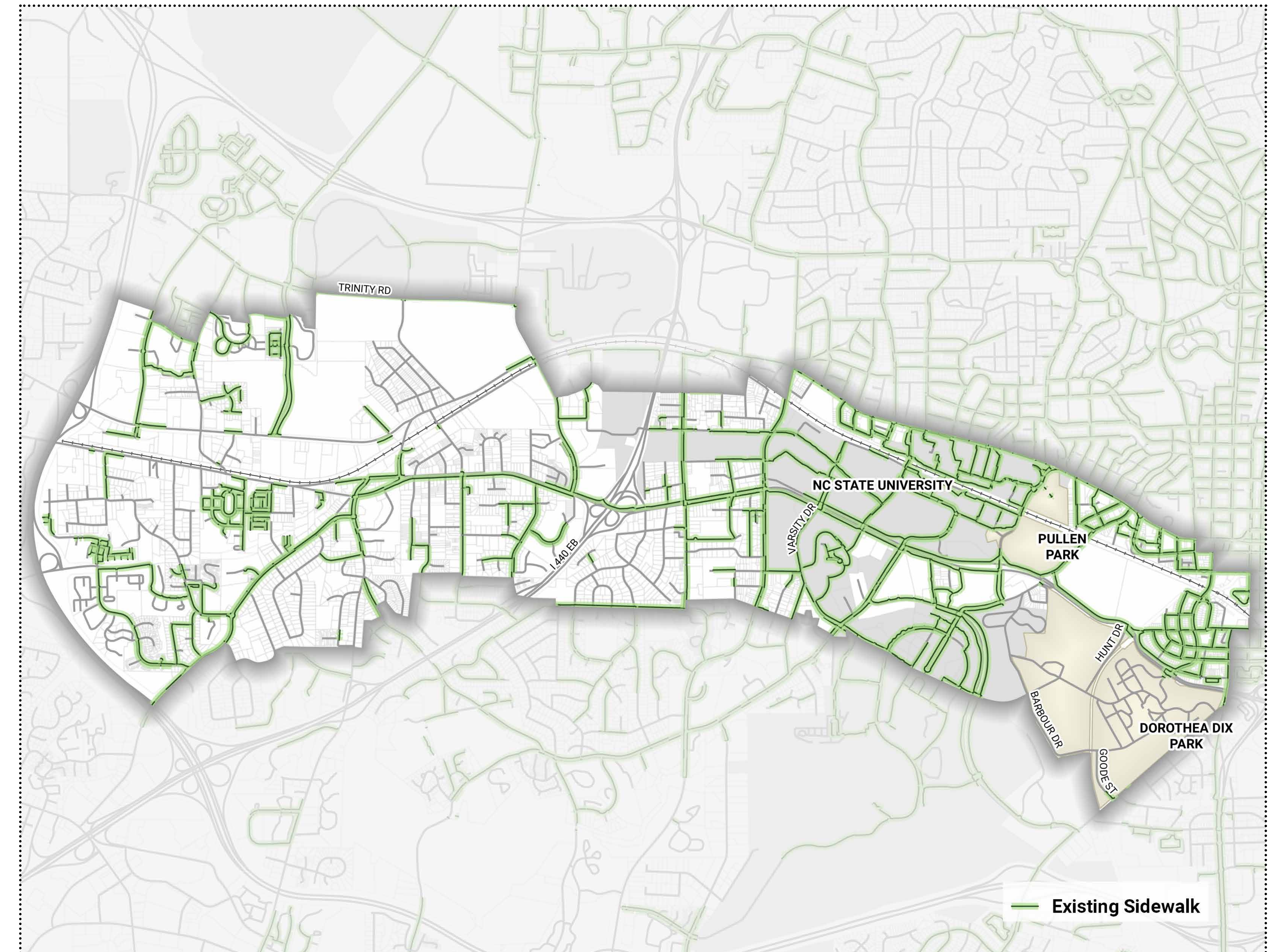
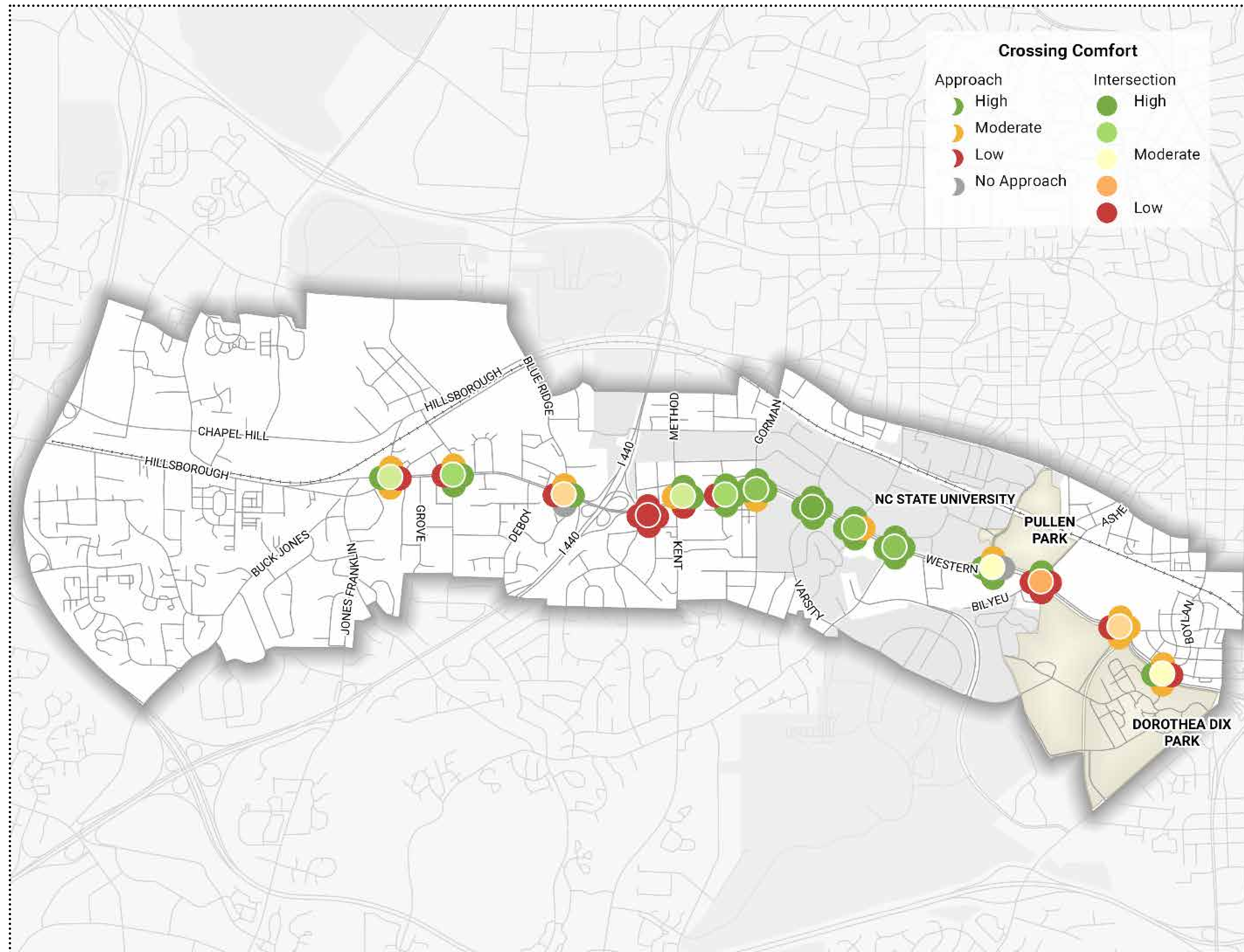


Bus Rapid Transit (BRT)

WAKE BRT: WESTERN BOULEVARD CORRIDOR STUDY



EXISTING CONDITIONS - PEDESTRIAN



CROSSING COMFORT CRITERIA

- Traffic signals
- Number of lanes
- Median and curb ramps
- Crosswalk style and condition



EXISTING SIDEWALK CONDITIONS:

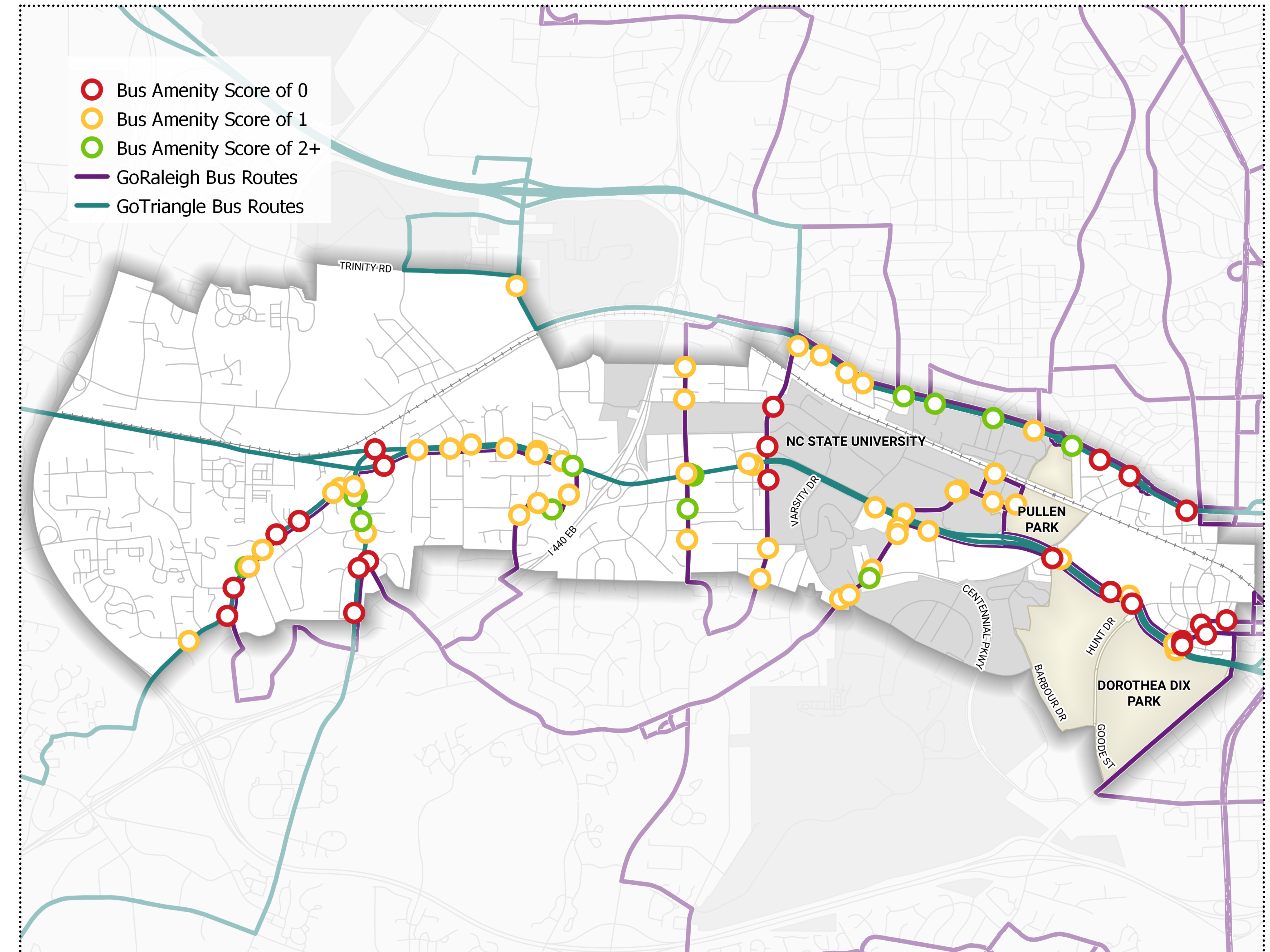
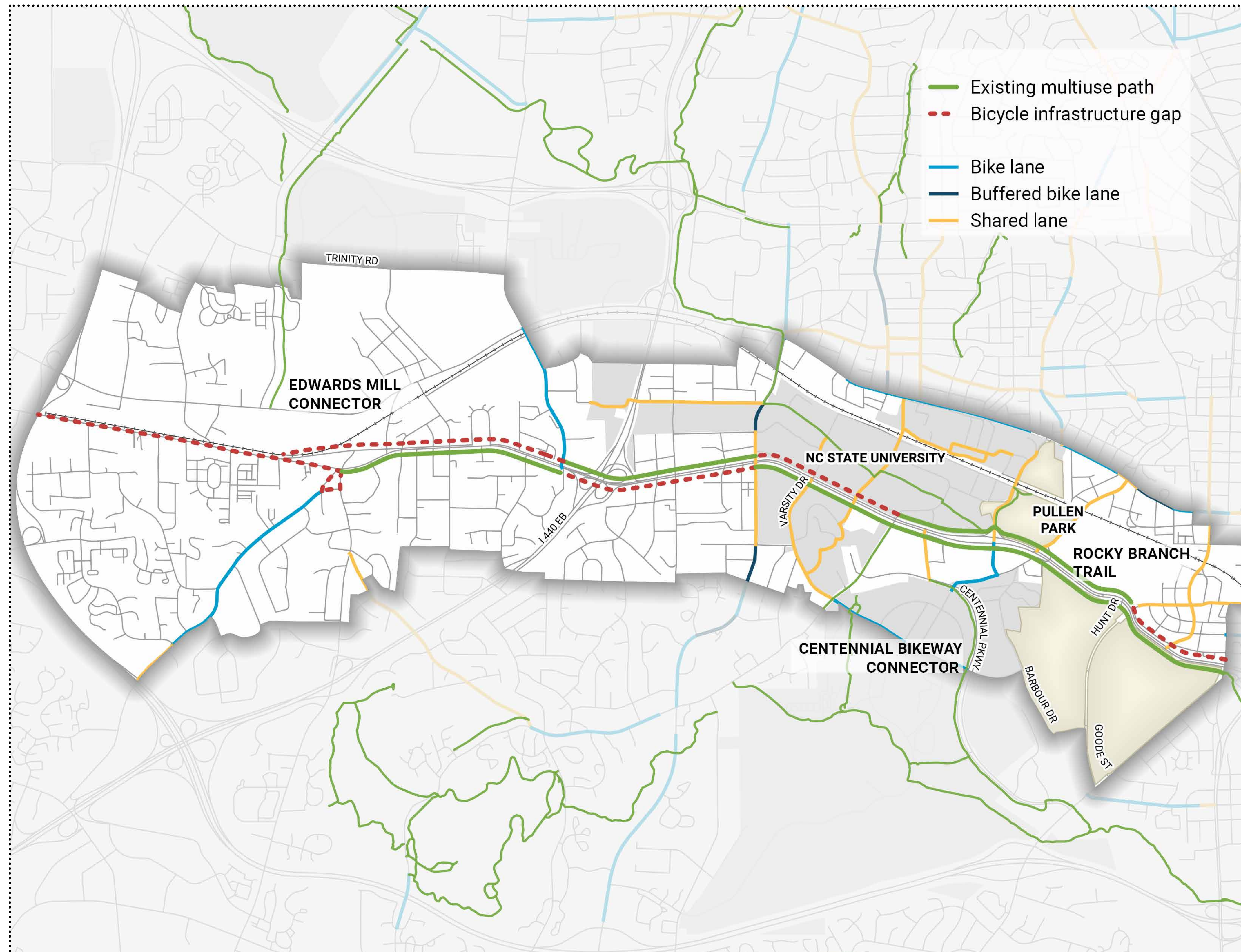
- Much of the corridor has sidewalks on both sides of the street
- Sidewalks on multiple cross streets do not continue across Western Boulevard

Bus Rapid Transit (BRT)

WAKE BRT: WESTERN BOULEVARD CORRIDOR STUDY



EXISTING CONDITIONS - BICYCLE AND TRANSIT



EXISTING MULTIUSE PATHS AND BICYCLE INFRASTRUCTURE:

- Multiuse paths currently exist along much of Western Boulevard
- Infrastructure gaps exist mainly west of I-440



BUS AMENITY SCORES:

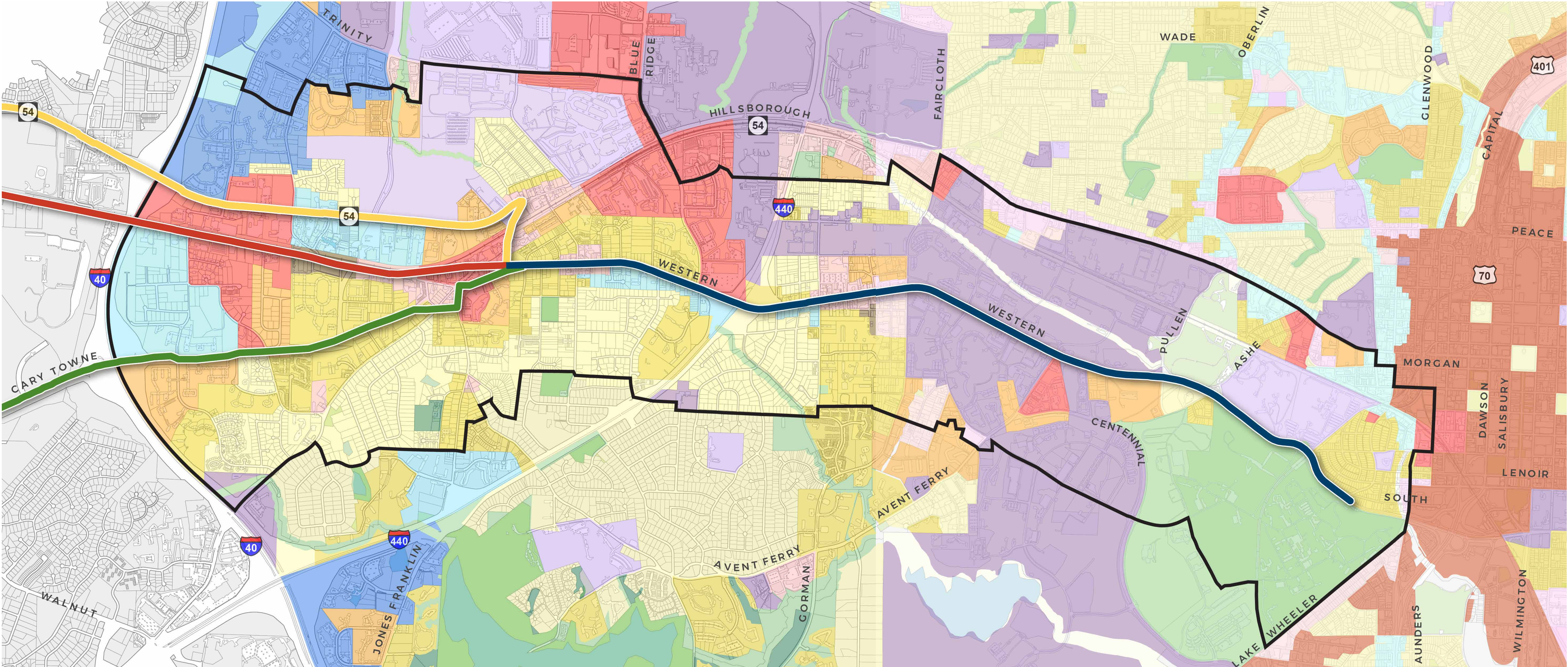
- Shelter
- Bench
- Lighting
- Sidewalk connection to neighborhood, business, or community destinations

Bus Rapid Transit (BRT)

WAKE BRT: WESTERN BOULEVARD CORRIDOR STUDY

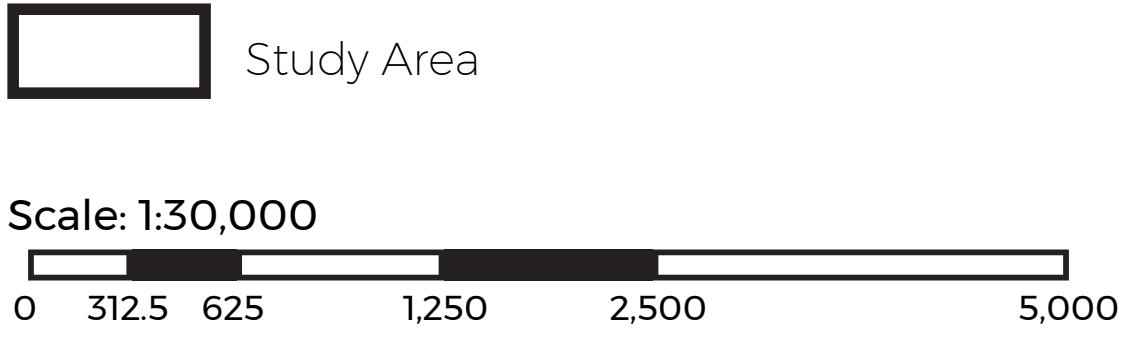


FUTURE LAND USE



FUTURE LAND USE

RESIDENTIAL	MIXED USE	OTHER	ALIGNMENTS
<div></div> Low Density	<div></div> Office + Residential Mixed Use	<div></div> Institutional	<div></div> Western Boulevard
<div></div> Moderate Density	<div></div> Neighborhood Mixed Use	<div></div> Office/Research&Development	<div></div> Chapel Hill Road
<div></div> Medium Density	<div></div> Community Mixed Use	<div></div> Public Parks + Open Space	<div></div> Chatham Street / Hillsborough Road
<div></div> High Density	<div></div> Regional Mixed Use		<div></div> Western Boulevard Extension / Cary Towne Boulevard
	<div></div> Central Business District		

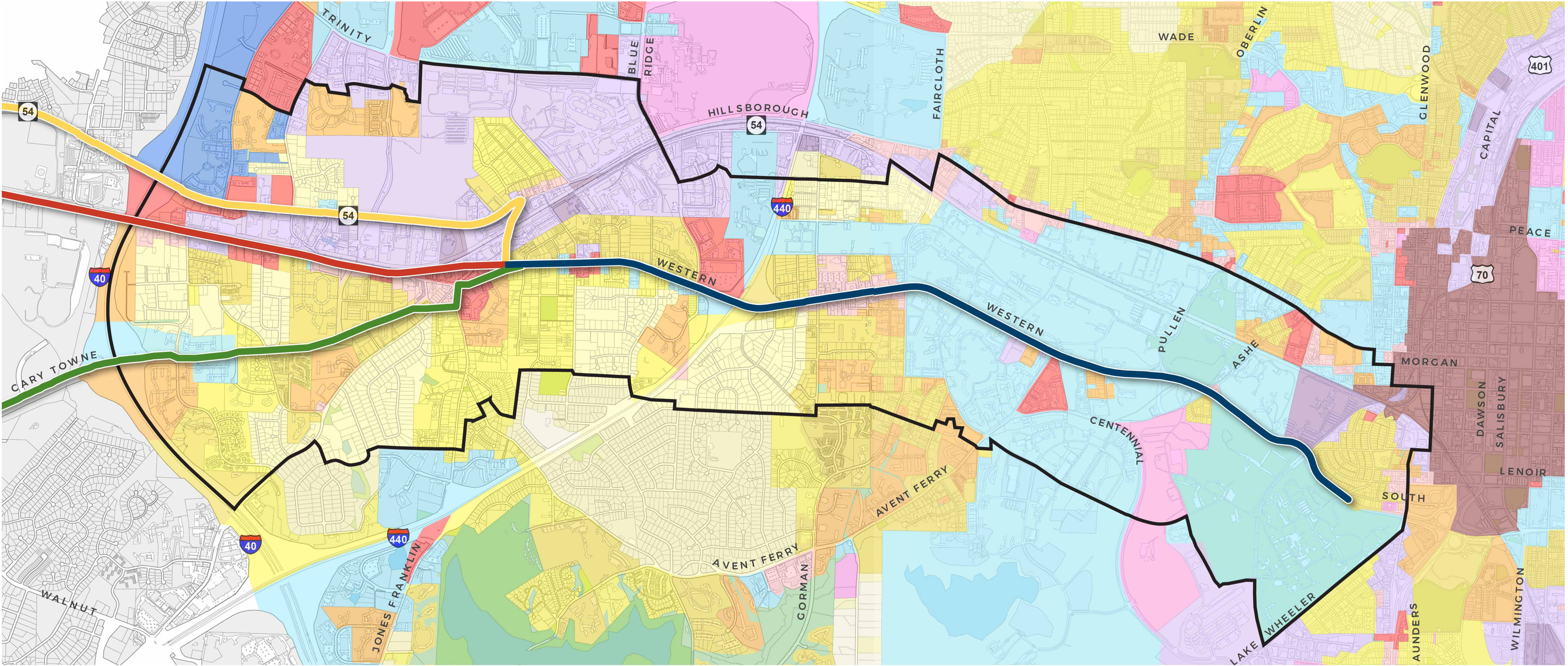


Bus Rapid Transit (BRT)

WAKE BRT: WESTERN BOULEVARD CORRIDOR STUDY



EXISTING ZONING



EXISTING ZONING

RESIDENTIAL

- R - 4
- R - 6
- R - 10

MIXED USE

- Residential Mixed Use
- Office Mixed Use
- Neighborhood Mixed Use

OTHER

- Commercial Mixed Use
- Downtown Mixed Use
- Industrial Mixed Use
- Planned Development
- Heavy Industrial
- Office Park

ALIGNMENTS

- Western Boulevard
- Chapel Hill Road
- Chatham Street / Hillsborough Road
- Western Boulevard Extension / Cary Towne Boulevard

Study Area

Scale: 1:30,000

0 312.5 625 1250 2500 5000

Bus Rapid Transit (BRT)

WAKE BRT: WESTERN BOULEVARD CORRIDOR STUDY



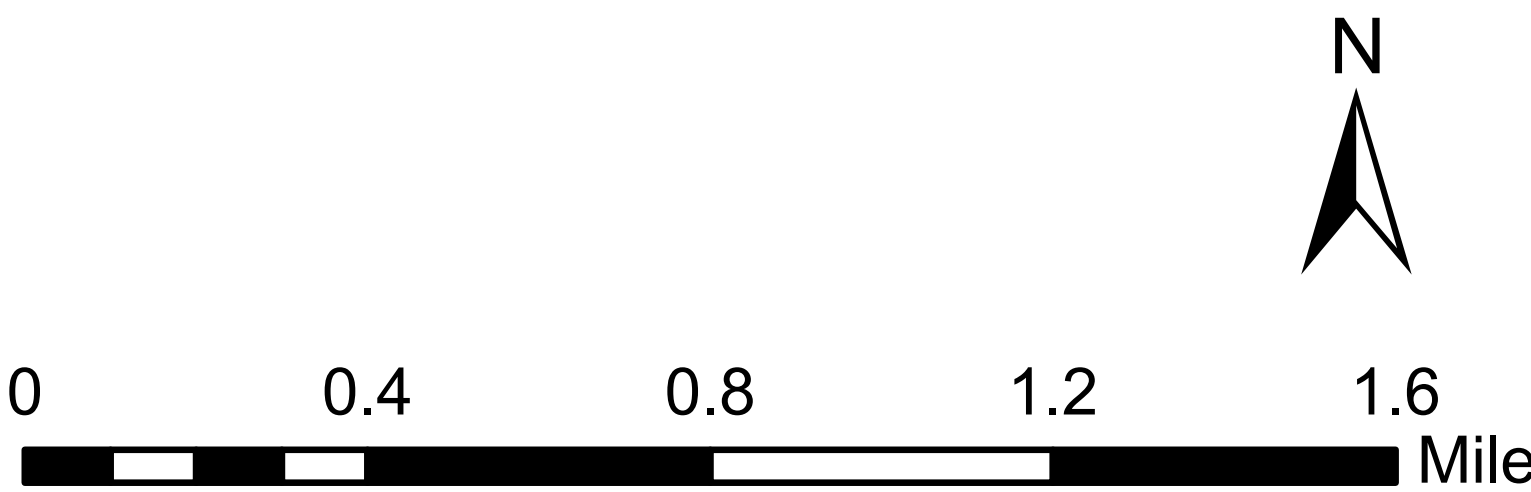
PROJECT COORDINATION

THIS PHASE WILL COORDINATE WITH UPCOMING PROJECTS THAT ARE IMPORTANT TO THE BRT PLANNING PROCESS.



**In addition to specific coordination for projects in these areas, coordination will continue with City of Raleigh, NCDOT, Town of Cary and other agencies on proposed projects within the corridor.*

- Wake BRT: Western Boulevard Corridor Alignments**
- Western Boulevard
 - Chapel Hill Road
 - Chatham Street / Hillsborough Road
 - Western Boulevard Extension / Cary Towne Boulevard



Bus Rapid Transit (BRT)

LET US KNOW!



WHERE DO YOU LIVE? USE THE ____ DOTS TO LET US KNOW!

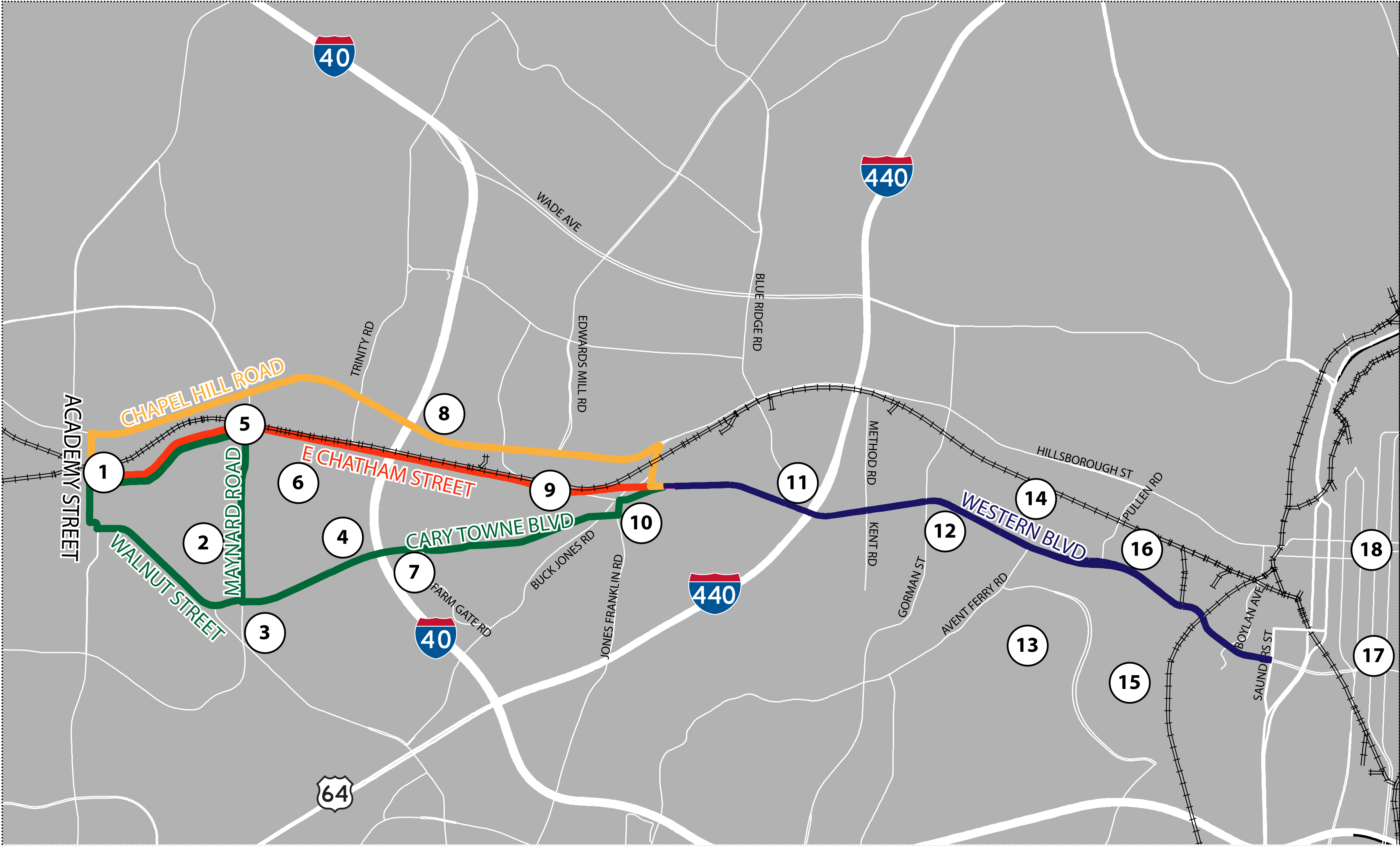
WHERE DO YOU WORK? USE THE ____ DOTS TO LET US KNOW!

KEY

1. Downtown Cary
2. East Cary Middle School
3. Cary Towne Center
4. Fenton Development
5. Maynard Rd at Chatham St
6. WakeMed Soccer Park
7. Farm Gate Rd / I-40
8. Corporate Center
9. Vie at Raleigh/Republic at Raleigh
10. Plaza West Shopping Center
11. Old Kmart
12. McKimmon Center
13. NC State Centennial Campus
14. NC State Main Campus
15. Dorothea Dix Park
16. Pullen Park
17. Shaw University
18. Downtown Raleigh

Wake BRT: Western Boulevard Corridor Alignments

- Western Boulevard
- Chapel Hill Road
- Chatham Street / Hillsborough Road
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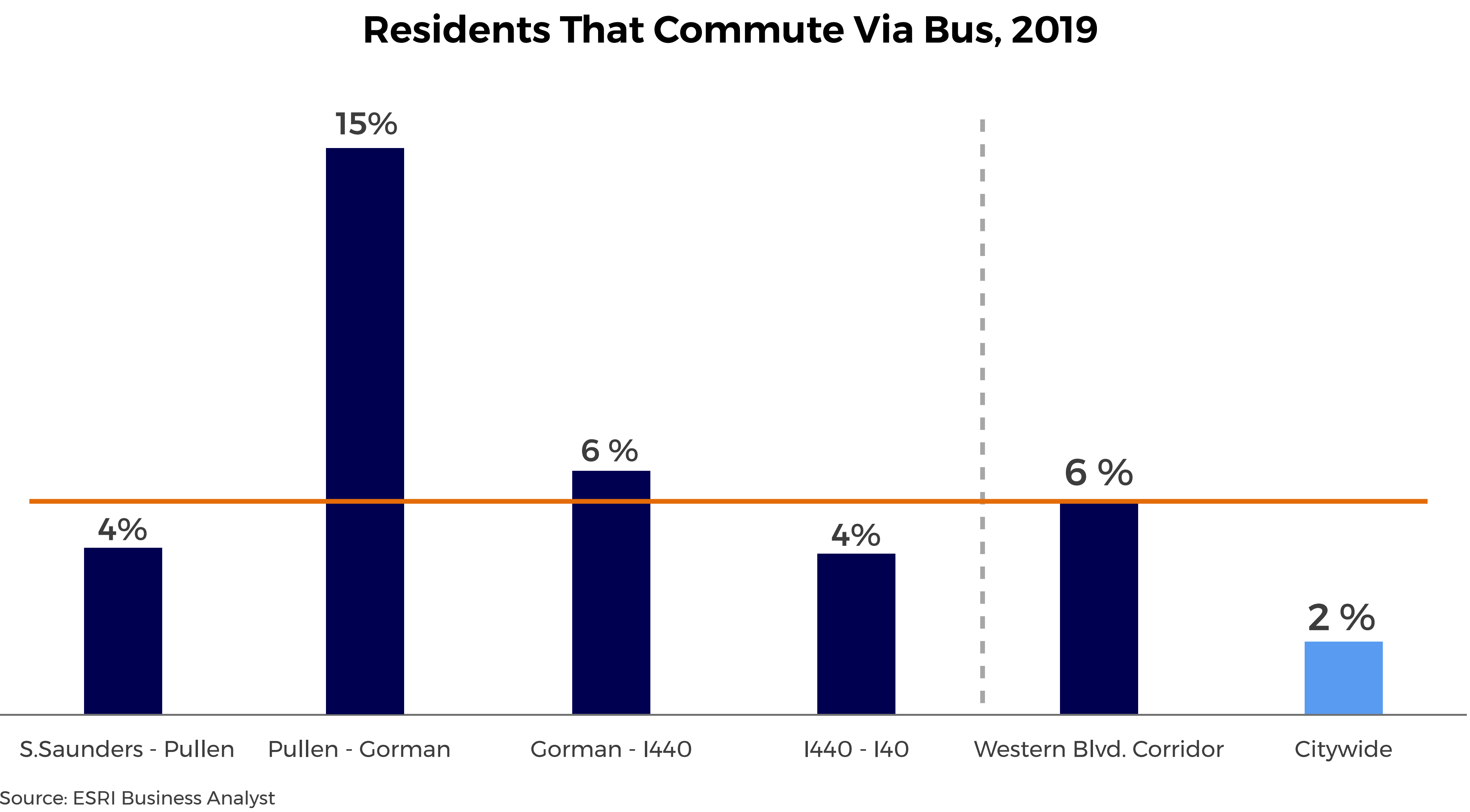
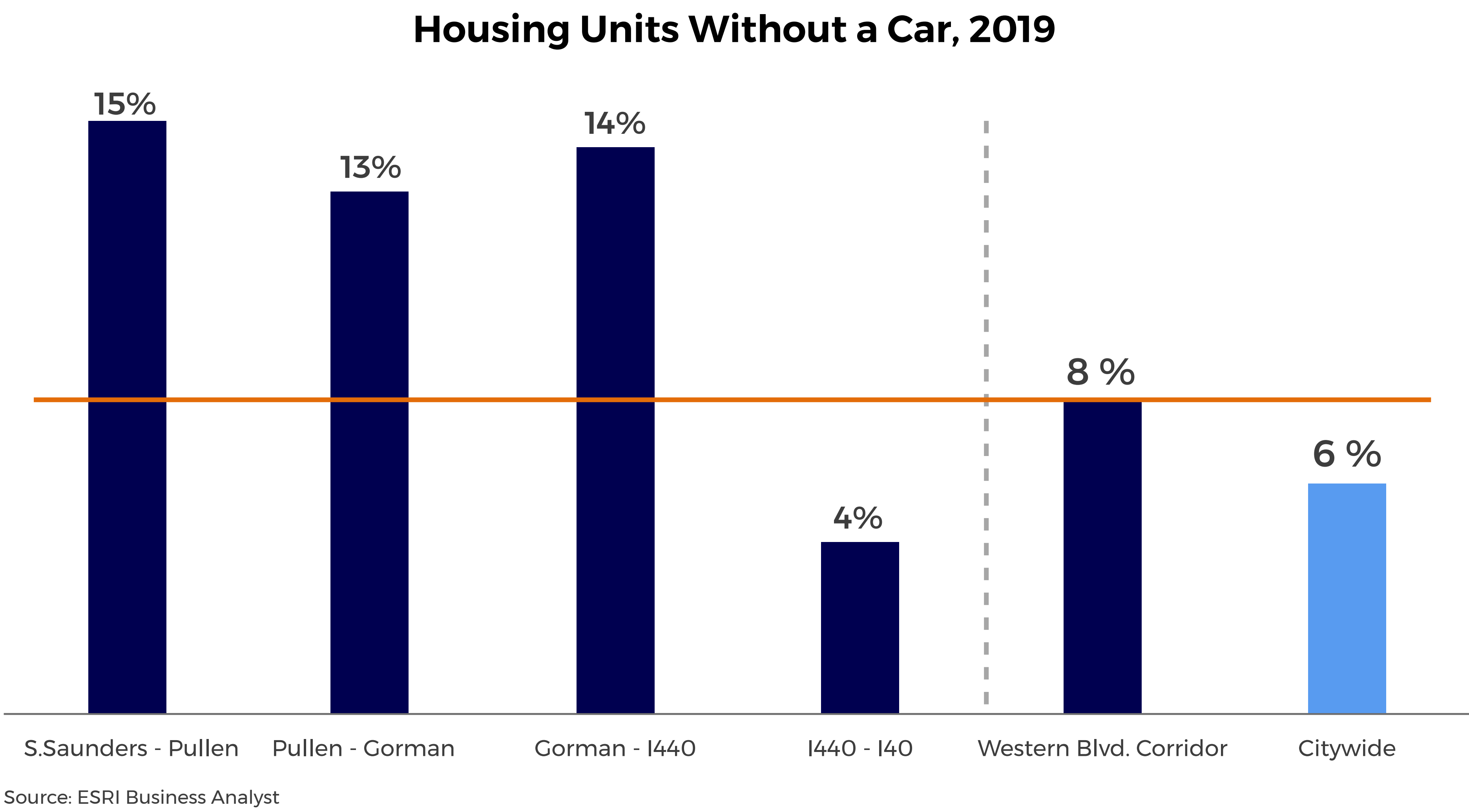
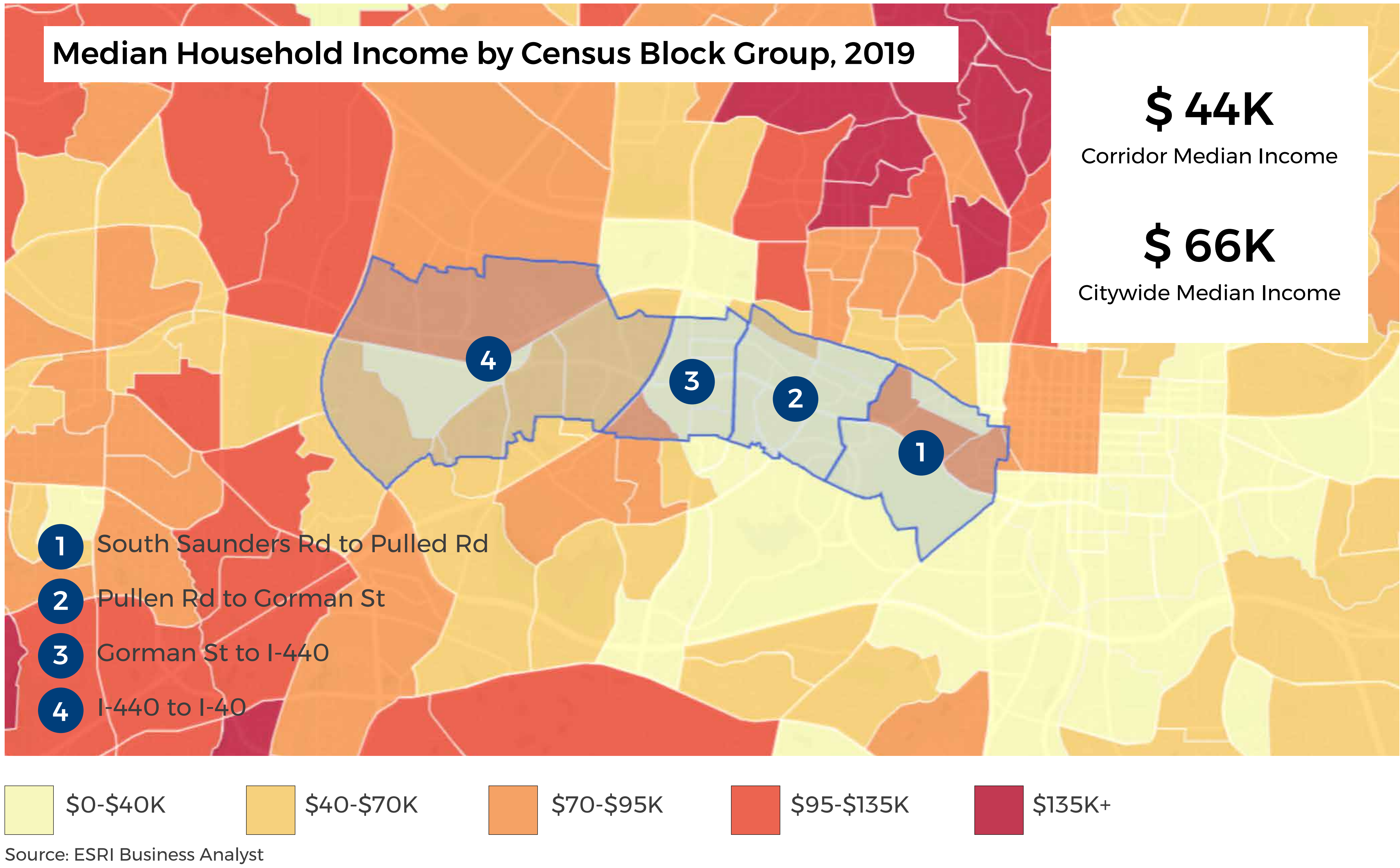
Bus Rapid Transit (BRT)

WAKE BRT: WESTERN BOULEVARD CORRIDOR STUDY



SOCIOECONOMIC TRENDS

- Over 30,000 residents live within a ½ mile of the planned Western Boulevard BRT route.
- Nearly 50% of corridor residents are younger than 34 years old, with a median age of 24 years old compared to Raleigh’s median age of 34.
- Median household income along the corridor is over \$20,000 less than the citywide median of \$66,000.
- Car ownership is significantly less common in three of the submarkets along the corridor compared to the city overall, and a higher percentage of corridor residents commute via bus.
- An affordable and reliable transportation alternative like BRT can provide an important mobility solution for residents along the corridor.

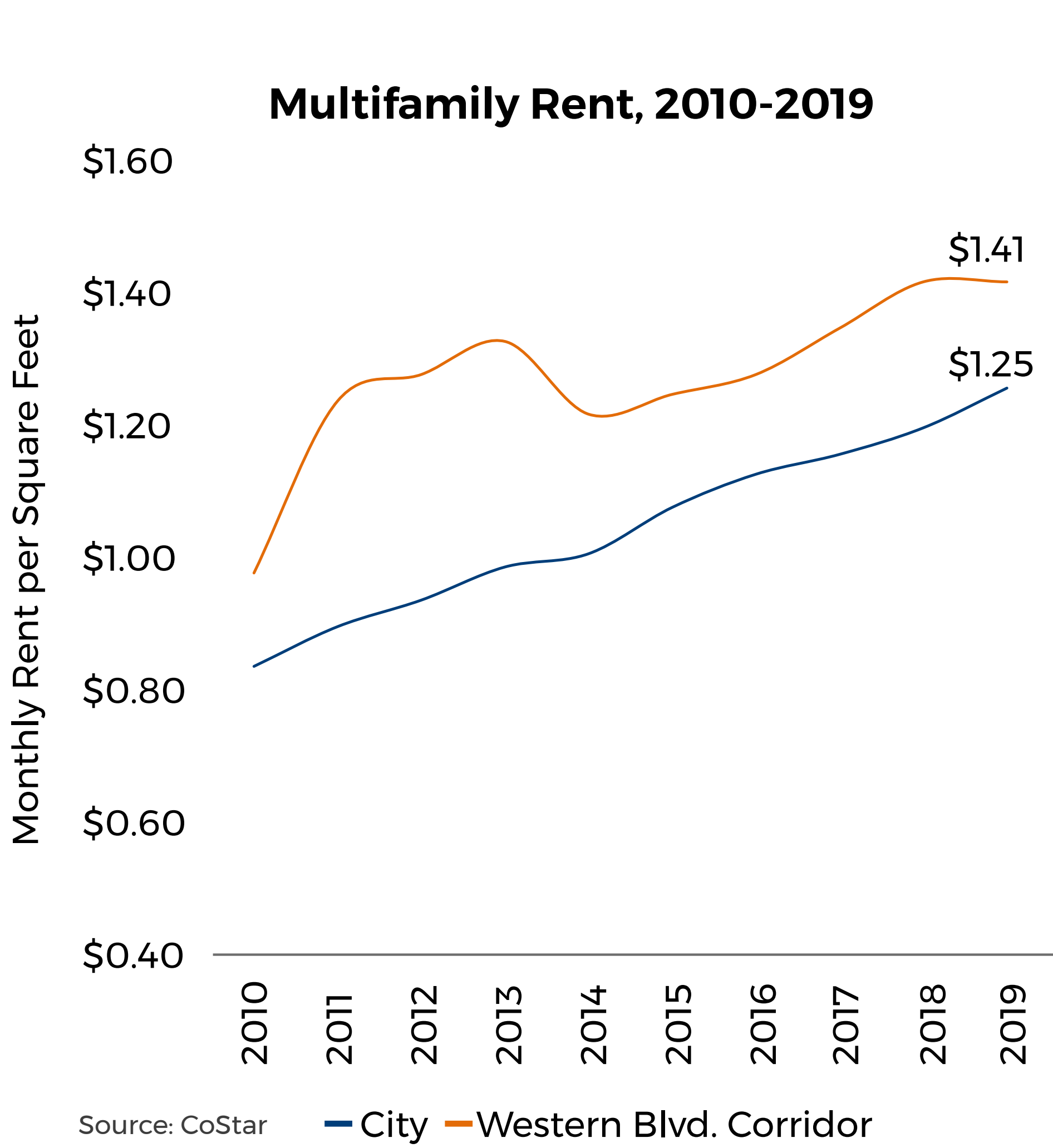


Bus Rapid Transit (BRT)

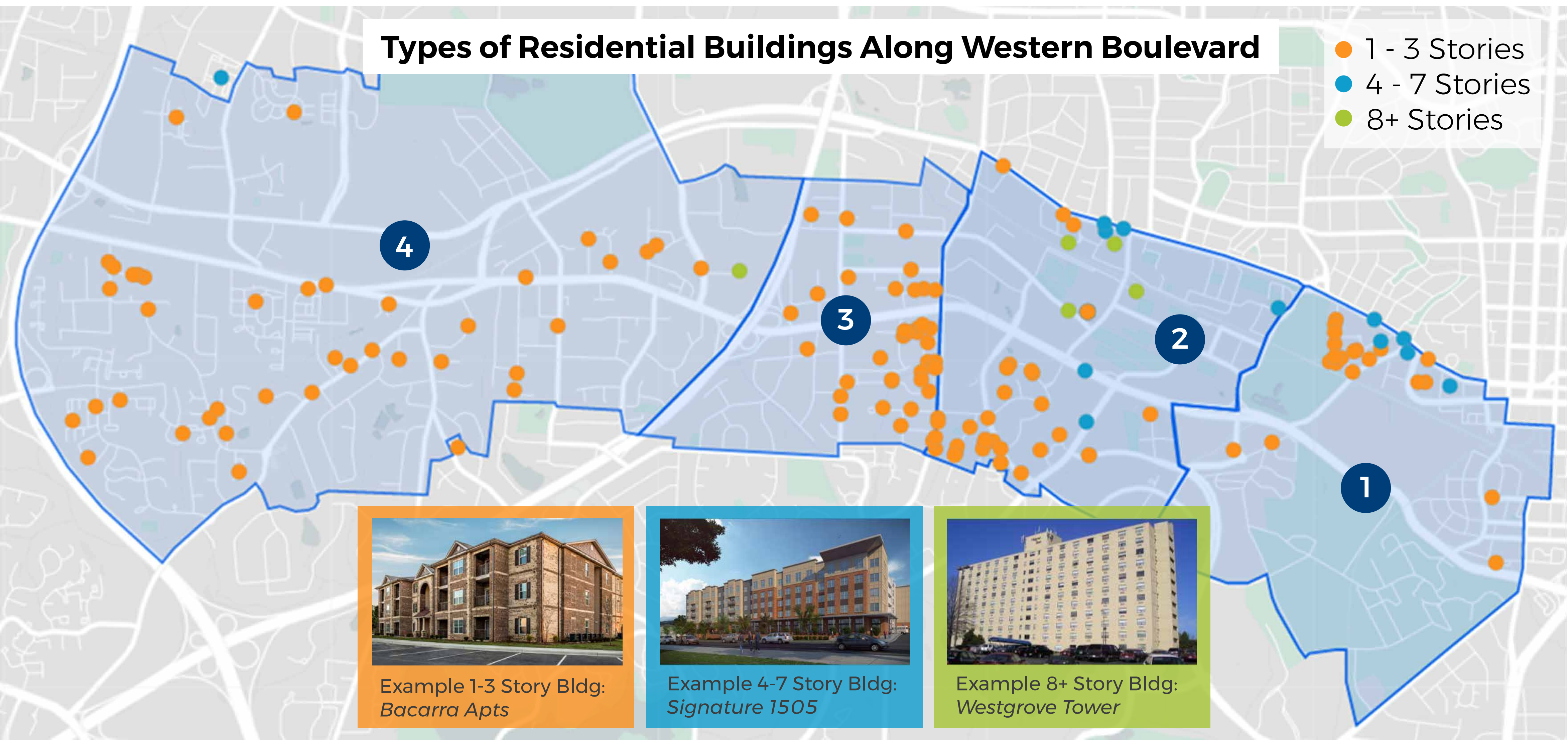
WAKE BRT: WESTERN BOULEVARD CORRIDOR STUDY

RESIDENTIAL TREND

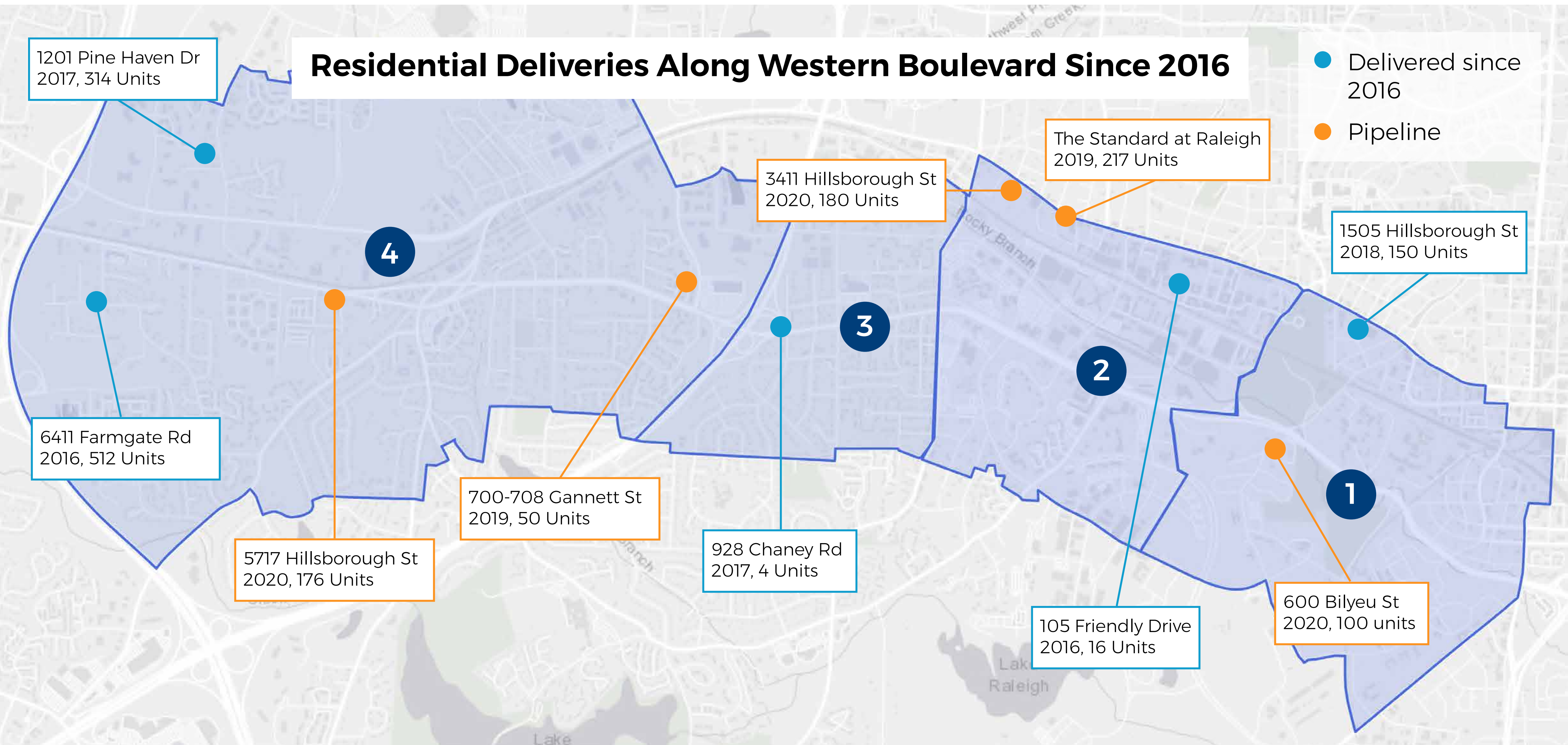
- Apartments along the corridor are typically 1-3 stories tall. Higher density apartments tend to be student housing near NC State University.
- Average monthly rents along the corridor are \$200 higher than the citywide average, brought up by high rents from residential properties near Downtown and NC State.
- In buildings farther from Downtown, the average monthly rent of all buildings is equal to or below the citywide average of \$1,200.
- Median home values along the corridor are \$14,000 higher than the citywide median of \$261,000, and are even higher closer to Downtown.
- BRT has the potential to encourage more housing along the corridor since enhanced mobility and investments around stations will be attractive to potential residents.
- Policies promoting equitable development are important to ensure that both current and new residents can benefit from the transit investment.



Submarket	Average Monthly Rent Per Unit	Median Home Value
1 S. Saunders – Pullen	\$1,560	\$365K
2 Pullen – Gorman	\$1,880	\$287K
3 Gorman – I440	\$930	\$224K
4 I440 – I40	\$1,220	\$201K
Western Blvd. Corridor	\$1,400	\$275K
Citywide	\$1,200	\$261K
Downtown	\$1,470	\$360K



Source: CoStar



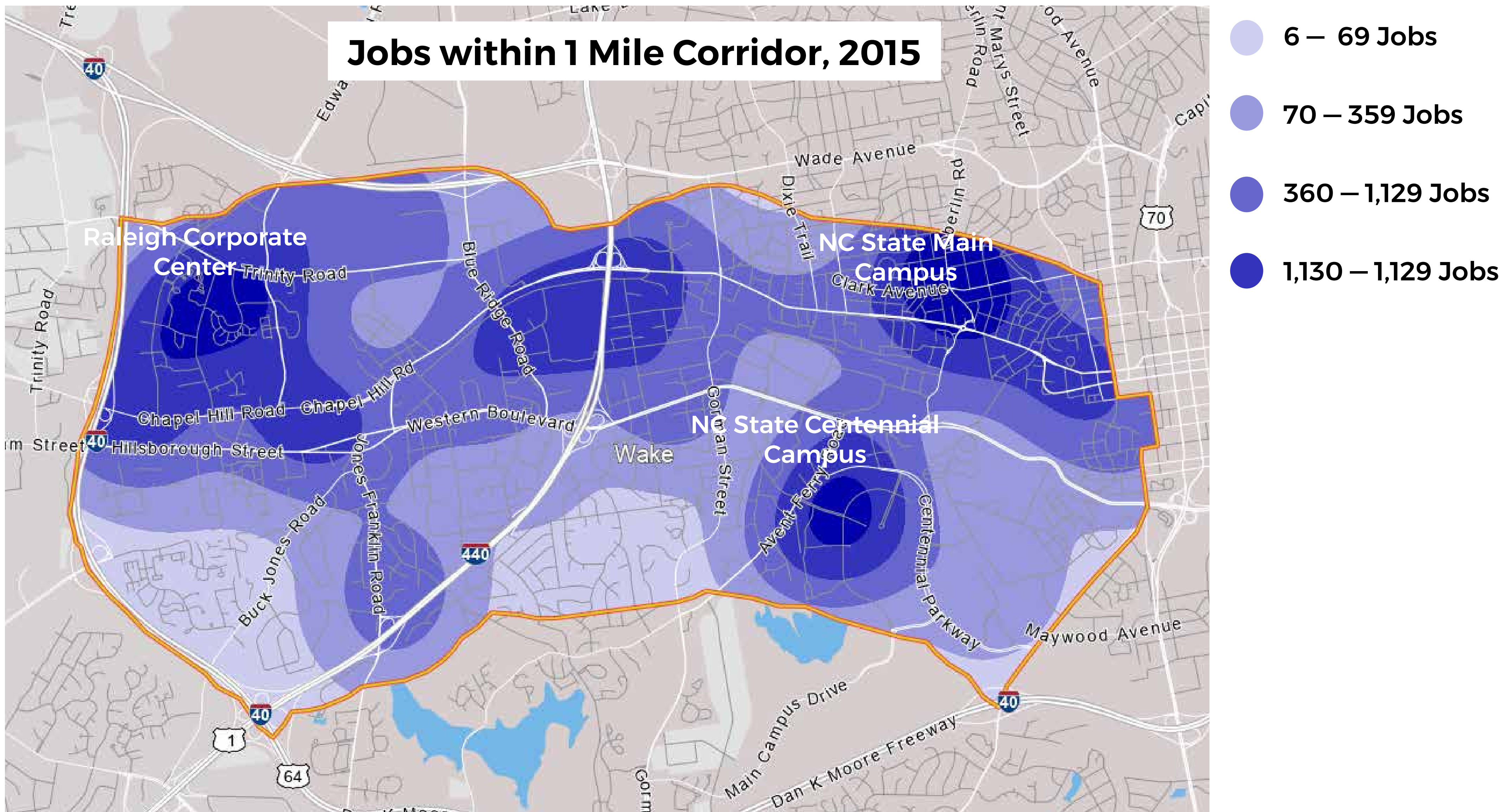
Source: CoStar

Bus Rapid Transit (BRT)

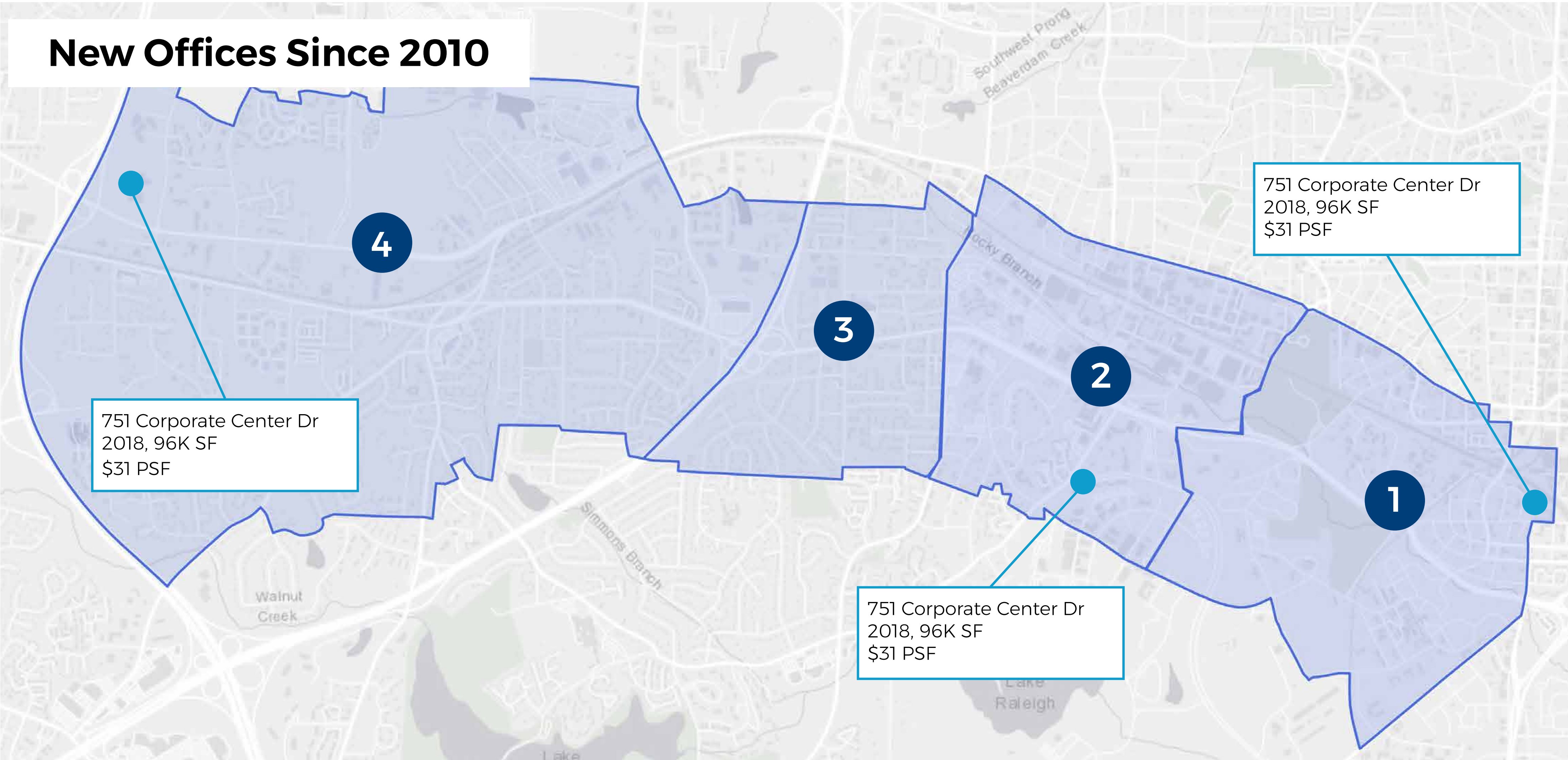
WAKE BRT: WESTERN BOULEVARD CORRIDOR STUDY

OFFICE TREND

- The office market along the corridor is limited in size and no new buildings are under construction.
- Recent projects cluster around NC State’s Centennial Campus and the Raleigh Corporate Center office complex.
- Newer office buildings tend to be highly amenitized with rents well above the citywide average.
- BRT will likely encourage less office development than residential development given the lack of momentum for office uses on the corridor.
- With appropriate physical connections, BRT can make Centennial Campus and the Raleigh Corporate Center office complex more attractive.



Source: LEHD OnTheMap

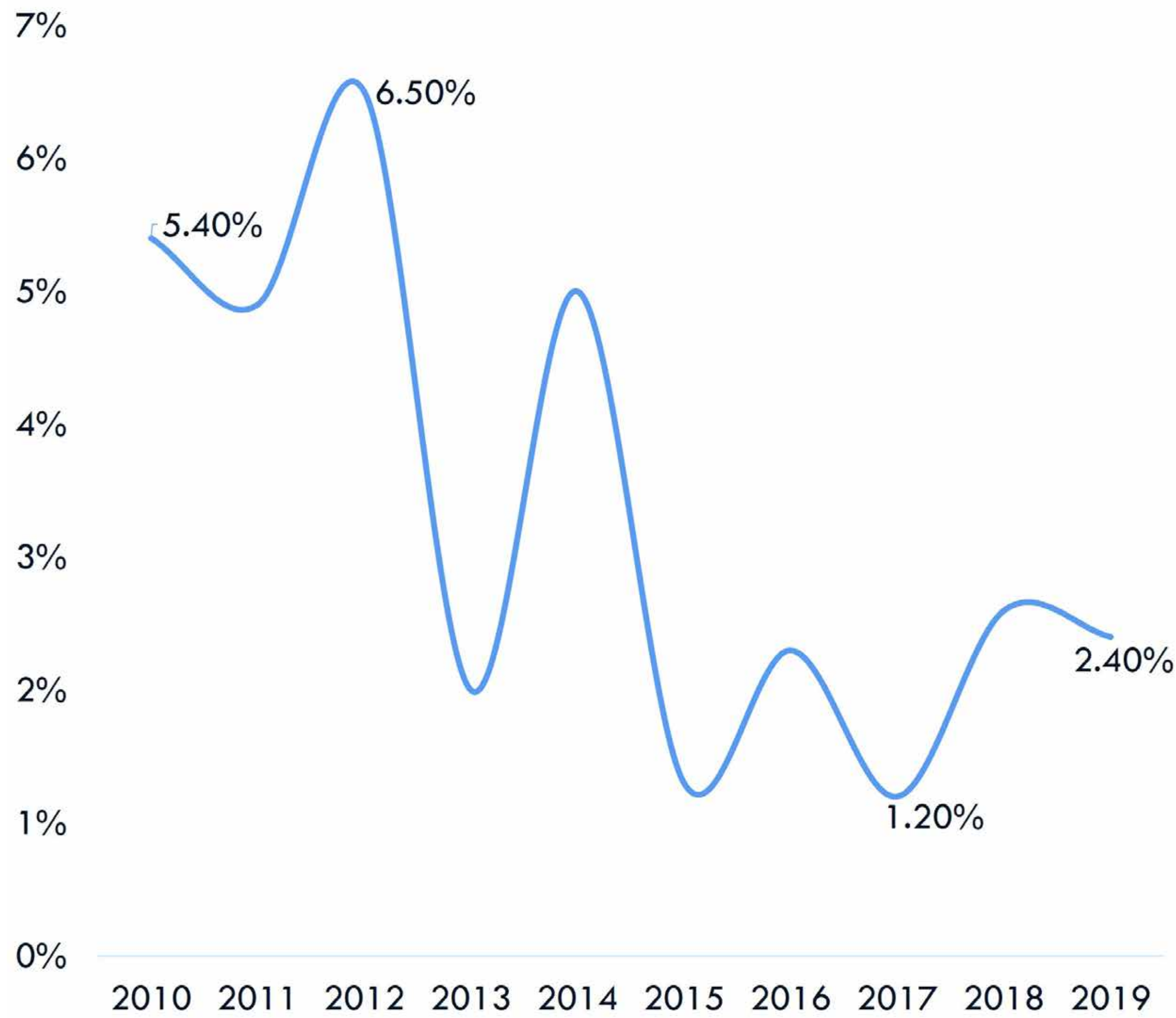


Source: CoStar

Submarket	Annual Office Rent Per Square Foot
1 S. Saunders – Pullen	\$22.59
2 Pullen – Gorman	\$20.40
3 Gorman – I440	N/A
4 I440 – I40	\$19.74
Western Blvd. Corridor	\$20.87
Citywide	\$25.21
Downtown	\$33.79

Source: CoStar

Office Vacancy, 2010-2019



Source: CoStar

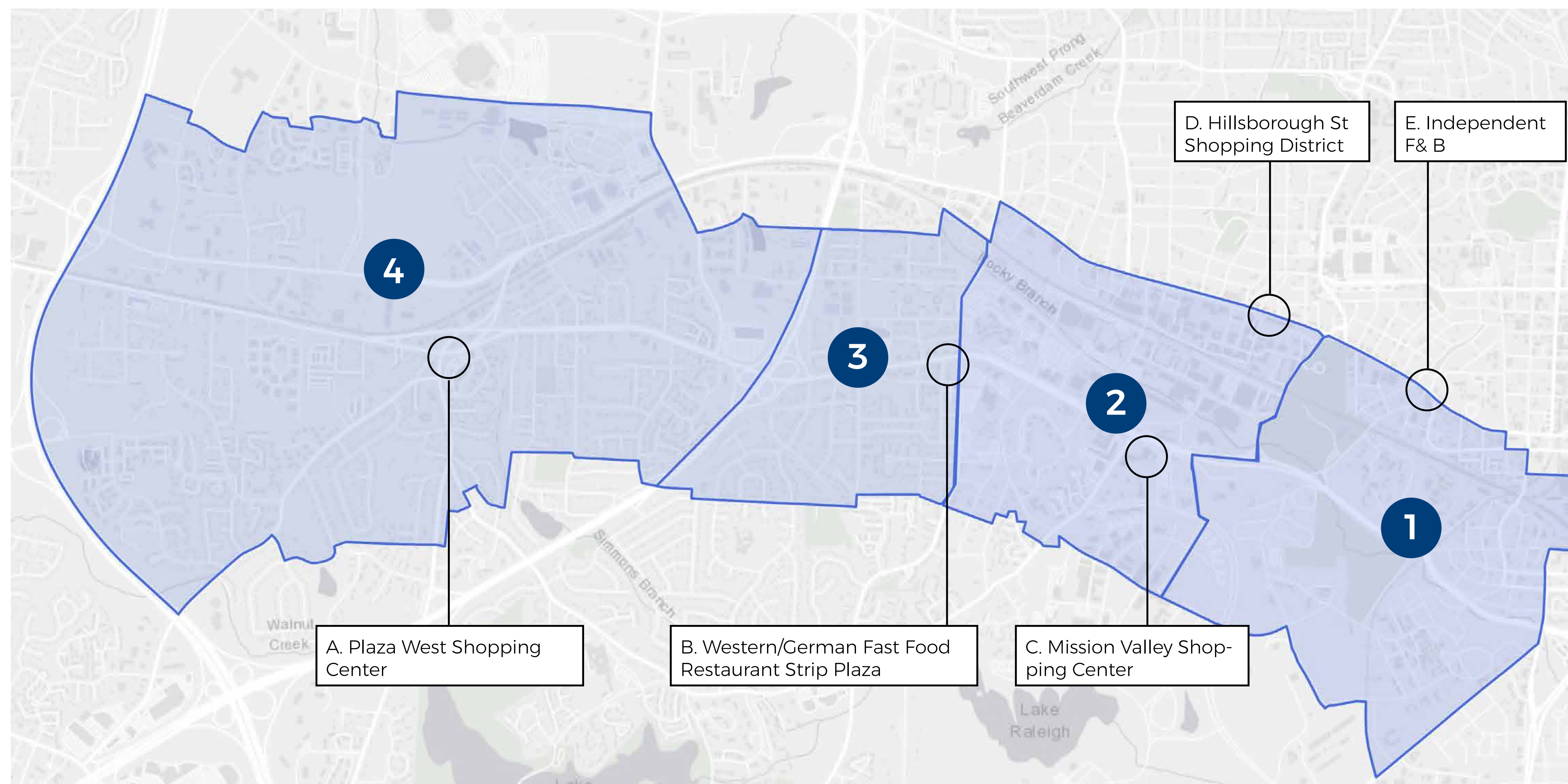
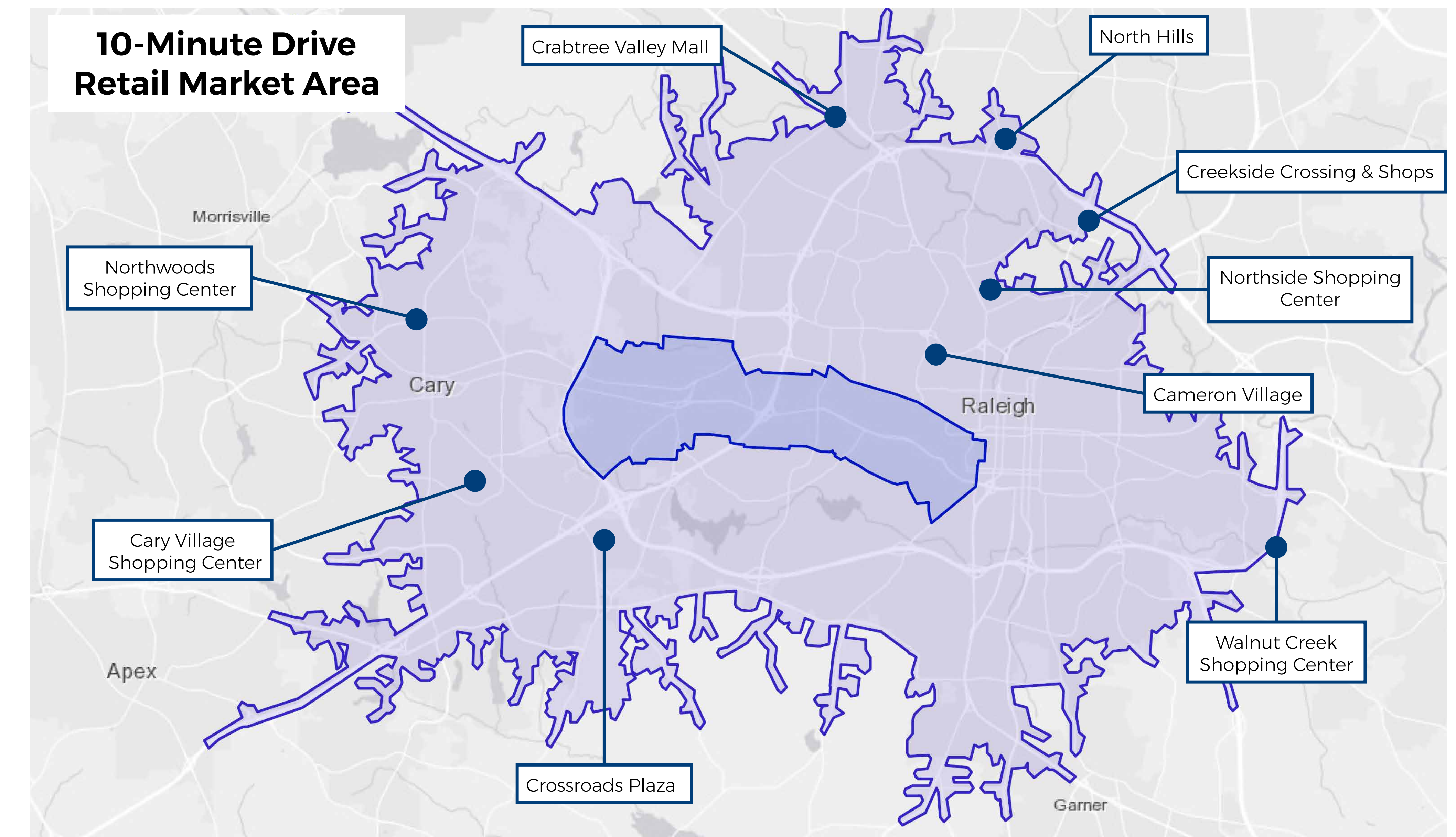
Bus Rapid Transit (BRT)

WAKE BRT: WESTERN BOULEVARD CORRIDOR STUDY



RETAIL TREND

- There are three major retail clusters along Western Boulevard itself: Mission Valley Shopping Center, mid-sized strip plazas and fast-food drive-throughs between Gorman Street and the Beltline, and Plaza West Shopping Center.
- These retail clusters primarily consist of sit-down and fast food restaurants and convenience-oriented stores that serve the daily needs of local residential communities.
- On the northern edge of the corridor, Hillsborough Street features a variety of retail and restaurant offerings serving the population of NC State University. There is also a cluster of independent food and beverage tenants on the western edge of Downtown Raleigh.
- With the opening of a BRT system, the corridor is poised for new ground floor, transit-oriented retail that draws local residents attracted to mixed-use environments.
- The corridor will likely continue to face considerable competition in becoming a shopping destination that attracts a significant customer base from outside the study area.



Source: CoStar



A. Plaza West Shopping Center, 63K Sq. Feet
Anchor: Harris Teeter



B. Fast Food Restaurants and Retail Strip Plaza
E.g.: Cook Out, Bojangles, McDonald's, Amedeo's, Food Lion, Advanced Auto Parts



C. Mission Valley Shopping Center, 75K Sq. Feet
Anchor: Dollar Tree



E. Independent Food & Beverage
E.g. The Remedy Diner, Irregardless Café
D. Hillsborough Street Shopping District
E.g. Target, Poke Bar, CVS Pharmacy, Guasaca

